

Drawing A Line Between Peaceful and Military Uses of Nuclear Power: The Japanese Press, 1945 - 1955 □□ 原子力平和利用と軍事的利用の間の線引き—1945年～1955年の日本の報道

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Abstract

Why did Japan, the victim of the atomic bomb, early and whole- heartedly opt for nuclear power? From 1945 to 1955, indeed, from the immediate aftermath of Japan’s surrender, the *Asahi*, *Mainichi* and *Yomiuri*, the big three newspapers, unanimously and without controversy, endorsed the peaceful uses of nuclear power, distinguishing it from nuclear weapons. This article reconsiders a literature that has focused on the decisive role of the *Yomiuri* newspaper, and Eisenhower’s 1953 Atoms for Peace program, which led the Japanese to accept nuclear power in the mid-1950s. Instead, it shows a broad media consensus in support of nuclear power from the 1940s, envisaged as the heart of the next industrial revolution.

Key Words:

Fukushima Daiichi accident, nuclear power, nuclear weapons, Japanese press, anti-nuclear movement, popular sentiment in Japan, US-Japan relations

Introduction

Why did Japan, the nation that experienced the destruction of the atomic bombings at Hiroshima and Nagasaki, followed by the Lucky Dragon #5 Incident of March 1954, in which Japanese tuna fishermen aboard the *Daigo Fukuryūmaru* (Lucky Dragon #5) were exposed to radiation fallout from the US hydrogen bomb test at Bikini Atoll, opt for nuclear power? The meltdown of reactors at the Fukushima Daiichi Nuclear Power Plant following the disastrous earthquake and tsunami of March 11, 2011 raised this question afresh for people around the world. Indeed, the House of Representatives of the Japanese Diet passed a budget for nuclear reactor research in early March 1954, shortly before the Lucky Dragon #5 returned to Japan and the tragedy of its crew was reported to the public.



Lucky Dragon #5 returns to port

A petition campaign against the hydrogen bomb began in May 1954 in Tokyo, and quickly led to a nation-wide ban-the-bomb movement. Prior to those events, in December 1953, however, US President Dwight D. Eisenhower gave an “Atoms for Peace” speech at the United Nations, hoping to control nuclear weapons and promote the peaceful uses of nuclear power internationally.

The Diet ostensibly followed Eisenhower’s lead. Afterwards, in December 1955, Japan’s Atomic Energy Basic Law was enacted, and in January 1956, the Atomic Energy Commission was established. This article examines the forces that led Japan to embrace nuclear at the very time the ban-the-bomb movement against nuclear weapons was spreading throughout the nation.

Long before the Fukushima nuclear disaster, Japanese authors such as Sano and Arima pointed out that Shoriki Matsutarō, owner of the *Yomiuri Shinbun* newspaper and the founder of *Nippon Television*, collaborated with the US Government and propagated the peaceful use of

nuclear power through his media outlets and public exhibits for the “Atoms for Peace” campaign in the mid-1950s.¹ Their goals included undermining the ban-the-bomb movement with its strong anti-American sentiment that had emerged in the aftermath of the Lucky Dragon Incident. Since the Fukushima nuclear disaster, many other authors have highlighted the role of Shoriki and his media outlets, and their collaboration with the US government for the introduction of nuclear power in the mid-1950s.² For example, Taguchi notes that Shoriki and the United States attempted to “resolve Japanese people’s strong nuclear allergy by promoting the peaceful use of nuclear power.”³ Yamaoka points out that Shoriki, “a brilliant mind of mass manipulation,” played a major role in changing Japanese public opinions against the United States and nuclear power.⁴

Nonetheless, it is also known that after the *Yomiuri’s* Atoms for Peace exhibit in Tokyo in late 1955, the *Asahi Shinbun* co-hosted Atoms for Peace exhibits with US institutions in Kyoto and Osaka early the next year, as did many local newspapers in their respective prefectures from 1956 to 1957.⁵ In short, the *Asahi* also supported the peaceful use of nuclear power. Yet authors who have emphasized the *Yomiuri* led by Shoriki as a powerful supporter for Japan’s introduction of nuclear power have not examined how other newspapers handled nuclear power.



**Layout for Atoms for Peace Exhibit,
Hiroshima**

This article studies editorials and articles of “*3-dai shi*” (the three major newspapers), the *Asahi Shinbun*, the *Mainichi Shinbun*, which did not sponsor an Atoms for Peace exhibit, and the *Yomiuri Shinbun*, from 1945 to 1955 in order to gauge their positions on the use of nuclear power for peaceful purposes against nuclear weapons, and reconsiders the role of the *Yomiuri* in Japan’s introduction of nuclear power. The *Yomiuri* was then Japan’s third largest newspaper, in terms of circulation. There is every reason to examine the first and second largest, the *Asahi* and the *Mainichi*, to study the media in Japan’s introduction of nuclear power.⁶ It is clear that the *Asahi* and the *Mainichi* in their editorials favored the peaceful uses of nuclear power even before Eisenhower’s 1953 “Atoms for Peace” address. All three major newspapers embraced the dual nature of nuclear power, drawing a clear line between peaceful and military uses of nuclear power, even in 1954 when the ban-the-bomb movement surged across Japan following the Lucky Dragon Incident.

The *Yomiuri* and the Peaceful Uses of Nuclear Power

Shoriki’s right-hand man, Shibata Hidetoshi, frankly discussed the fact that, as Shoriki’s representation, he had conspired with Daniel S. Watson, who claimed to represent the White House, to propagate the peaceful use of nuclear power to the Japanese following the ban-the-bomb petition campaigns.⁷ Shibata viewed the ban-the-bomb movement as part of a Japanese communist conspiracy in support of the Soviet Union’s strategic effort to realize world revolution. He stressed that one goal of their effort to introduce the peaceful uses of nuclear power was to undermine the rising ban-the-bomb sentiment and movement with its strong anti-American sentiment.⁸

In May 1954, residents of Sugunami Ward, Tokyo, in the aftermath of the Lucky Dragon Incident, had launched a ban-the-hydrogen-bomb petition drive (*suibaku kinshi shomei undō*).⁹ This became a precursor of the nationwide petition campaign. The number of signatures in total reached 14 million just after the death of one of the tuna boat fishermen, Kuboyama Aikichi, in September 1954.¹⁰ It surpassed 30 million in Japan and reached 600 million worldwide by August 1955.¹¹ Yamazaki and Okuda speculates that Shibata and Watson first discussed their collaboration in fall 1954 as Shibata became aware of the growing movement against nuclear weapons.¹²

Shibata's and Watson's collaboration first resulted in a visit of the non-governmental, "Atoms for Peace" delegation headed by the founder and president of General Dynamics, John J. Hopkins, in May 1955. Sano points to *Yomiuri's* front-page articles on the peaceful use of nuclear power in early 1955 and calls the *Yomiuri* "a newspaper for nuclear power."¹³ *Nippon Television* also broadcast programs to publicize the peaceful use of nuclear power.¹⁴ The *Yomiuri* held the Atoms for Peace exhibit in Tokyo in November and December 1955 with the US Information Agency (USIA) as co-hosted.¹⁵ The exhibit displayed a variety of possibilities of nuclear power, such as energy generation, transportation, and medical science, with photos, movies, and equipment, like magic hands to handle radioactive materials, which visitors could use. It was quite successful with over 360,000 people visiting over forty-two days.¹⁶

Nonetheless, as noted above, the *Yomiuri* was not the only sponsor of Atoms for Peace exhibits. Other newspapers hosted exhibits in ten major cities from Hokkaido to Kyushu from 1956 to 1957.¹⁷ The sponsors included the *Asahi* in Kyoto and Osaka. Even in Hiroshima in 1956, the *Chugoku Shinbun* sponsored an Atoms for Peace exhibit over opposition from *hibakusha* or A-bomb victims.¹⁸ Why did those newspapers sponsor the exhibits? The collaboration between the *Yomiuri* and the US government cannot answer this question.

The Early Postwar Period, 1945-1951

When the Showa Emperor announced Japan's surrender to the Allied Powers on August 15, 1945, the *Asahi* and the *Yomiuri* already reported the non-military potential of nuclear power. An article in the *Asahi* on August 16th, titled "*Yusoshudan ni Kakumei Shorai*" (Will the Means of Transportation Be Revolutionized?), reported that "US heavy industry expects nuclear power to change the means of production drastically" and noted that "it will replace coal, oil, and water" for power generation. An article in the *Yomiuri*, "*Sangyo Kakumei womo Motarisu*" (Industrial Revolution to be Realized), similarly stressed the potential of nuclear power for electric generation and transportation.

The Occupation of Japan began in late August 1945, and the occupation authority, with US General Douglas MacArthur as well as the Far Eastern Commission of the Allied Powers, banned the Japanese from engaging in nuclear research throughout the Occupation.¹⁹ In the meantime, the World War II victors began to compete with each other in the field of nuclear weapons development. In 1949, the Soviet Union succeeded in testing nuclear weapons, followed by the United Kingdom in 1952. At the same time, the nuclear powers were studying application of nuclear power to non-military uses such as electric generation. In 1951, the United States succeeded in nuclear electric generation for the first time. The three major newspapers paid

attention to the peaceful use of nuclear power from the early Occupation. The *Asahi* and the *Mainichi* published editorials and news articles discussing and reporting on it, while the *Yomiuri* printed only news articles on nuclear power for non-military purposes.

The *Asahi* and the *Mainichi* were aware of the dual nature of nuclear power in 1946. The *Asahi* in its editorial on January 22nd, titled “*Genshiryoku Jidaino Keisei* (Formation of the Atomic Era), argued that “humankind has entered the atomic era” and stressed that nuclear power was expected to “revolutionize industrial and medical technology.” This editorial also contended that “the ban on nuclear power research does not necessarily prohibit the Japanese nation from taking part in the formation of the atomic era.” In addition, *Asahi’s* renowned front-page column, “*Tensei Jingō* (Voice of Men is Voice from Heaven *vox populi vox dei*), on May 15th complained, “The Japanese seem very insensitive to the fact that humankind stands at the beginning of the atomic age although we were the first victims of atomic bombings,” and noted that humanity could use “nuclear power for both the destruction of humanity and our unlimited happiness.”²⁰ The column also quoted a passage of US President Harry S. Truman’s speech at an American university: “Hiroshima does not mean the end of civilization. Rather it has opened the beginning of a new, better world.” Boyer examines how Truman sought to

popularize the bright side of nuclear power, including nuclear energy and medicine, just after the end of WWII.²¹ Apparently Truman’s effort had an impact on the *Asahi* “*Tensei Jingō*” on June 17th also said that if nuclear power “is used for the happiness of humankind, world civilizations would change beyond our imagination” just after the United States proposed international control of nuclear weapons at the United Nations.

In addition, the *Mainichi* in its editorial on July 4th, 1946, “*Genshiryoku Bunmei* (Civilization of Nuclear Power), discussed the potential of nuclear power for peaceful industries, while noting that the Japanese were banned from conducting nuclear power research. In 1947, *Mainichi’s* October 27 editorial, “*Genshiryoku to Daini Sangyo Kakumēi* (Nuclear Power and the Second Industrial Revolution), hoped that “Japan...would be able to contribute to the world” by joining “the next industrial revolution brought by nuclear power.” *Mainichi’s* editorial on September 25, 1949, “*Genshiryoku to Bunmei*” (Nuclear Power and Civilization), emphasized that “it is the Japanese people that can more loudly argue that nuclear power must be used for the happiness of humankind...than any other nation in the world,” having observed the Soviet Union’s success in the development of the atomic bomb. The editorial suggested that, as the first victim of nuclear weapons, Japan had the right to demand nuclear power for peaceful purposes. A

similar argument also appeared in *Mainichi's* editorial, "Genbaku to Warera no Negai" (A-bombs and Our Hopes), on October 5th 1951.

The *Asahi* in a front-page article on September 6th 1947, quickly responded to Truman's announcement that the United States would provide other countries with radioactive isotopes for the development of medical treatment for cancers.²² The *Asahi* editorialized on September 10 on "Genshiryoku no Heiwateki Riyo" (Peaceful Use of Nuclear Power), praising the United States for its attempt to internationalize nuclear research for medical science. The editorial noted that "it will enable many scientists who pray for world peace to contribute to a variety of aspects in nuclear research," while criticizing the United States and the Soviet Union for the delay of international control of nuclear weapons. The *Yomiuri* also reported the Truman's announcement about the radioactive isotope for international medical studies in its article on September 10th 1947.²³

On January 12th 1948, *Asahi's* "Tensei Jingō" wrote, "It is regrettable that the Diet has had no discussion on nuclear power that would create a new age," while pointing out that politicians and scientists closely communicated in the United States. That month, the *Asahi* reported that the United States would test nuclear electric generation by the end of the year, noting that nuclear power would solve the shortage of electricity.²⁴ In a February 3rd editorial,

"Genshidoryokuka no Jitsugen suru Toshi" (Year of Realization of Nuclear Electric Generation), the *Asahi* noted the dual nature of nuclear power but hoped that "the peaceful use of nuclear power without serious dangers should be available to all the people in the world."

In December 1951, the United States succeeded in harnessing nuclear energy for the first time. Prior to that, the *Asahi* in its August 3rd 1951 editorial, "Genshiryoku Riyo no Shindankai" (New Stage of the Use of Nuclear Power), noted that the US had developed a breeder reactor with "great significance for the peaceful use of nuclear power." Subsequently not only the *Asahi* but also the *Mainichi* and the *Yomiuri* published front-page articles in their morning editions on December 30th to report the world's first nuclear electric generation in the United States.²⁵

Meanwhile, the *Yomiuri* interviewed Japanese physicists and asked them to write essays on the potential of nuclear power for non-military uses. It also hired physicists as lecturers for cultural and educational events to introduce nuclear power to the general public. For example, the *Yomiuri's* article on July 26th 1946 reported that nuclear power could be used for peaceful industries such as electricity and transportation, based on a talk by Tokyo University physicist Sagane Ryokichi.²⁶ Sagane discussed the use of nuclear power to create rainfall and terminate typhoons. In short, nuclear power was depicted as a dream technology for humanity. The *Yomiuri*

also interviewed Nishina Yoshio, who had led a research project funded by the Imperial Army to develop atomic bombs during the Asia-Pacific War. In “Nihon no Kagaku, Atarashiki Michi” (Japan’s Science; New Paths), published on March 4th 1946, Nishina said that despite the ban on nuclear power research, Japanese researchers in the future should conduct “research for peaceful uses” in medical science and biology.²⁷ On August 1st 1948, the *Yomiuri* published an essay, “Genshiryoku to Heiwa” (Nuclear Power and Peace), in which Nishina discussed the potential of nuclear power for industrial technology and energy production.²⁸ The essay appeared in the science section, along with an essay by Nagai Takashi, a researcher on radiation medicine, a *hibakusha* and the best-selling author of *Nagasaki no Kane* (Bells of Nagasaki). Nagai discussed the future of atomic medicine. Introducing the two essays, the *Yomiuri* noted, “With the message, ‘Nuclear power to be used for peace,’ we will commemorate the 3rd anniversary of the atomic bombings,” stressing that nuclear power would realize a new industrial revolution. The *Mainichi* also interviewed Nishina and published an article on February 17, 1947 discussing how nuclear power research should be realized in Japan in the future.²⁹

Takeda Eiichi, Associate Professor of physics at Tokyo Industrial University, published an essay in *Yomiuri* on February 13th 1949, “Genshiryoku

no Heiwateki Riyo” (Peaceful Use of Nuclear Power), in which he explained the future energy production system based on nuclear power.³⁰ Takeda emphasized, “We can use nuclear power for peaceful and war purposes.... The choice is up to the intelligence of humanity.” In the same year, the *Yomiuri* announced its public lecture series on June 13: “Genshiryoku Koen to Eiga no Kai” (Gathering for Lectures and Films on Nuclear Power). The lectures addressed the significance of the peaceful uses of nuclear power on politics, economy, life, and industry. Lecturers included Nishina Yoshio and Sagane Ryokichi. Other articles on nuclear power appeared in the *Yomiuri* during the Occupation. On January 1, 1950 the *Yomiuri* reprinted an interview with David Lilienthal, the first chair of the US Atomic Energy Commission (1946-1950), which originally appeared in *U.S. News & World Report*.³¹ The *Yomiuri* featured it as the top article in the science section. Lilienthal mainly discussed the peaceful use and future commercialization of nuclear power in the United States. Boyer describes Lilienthal as Truman’s “most effective lieutenant in promulgating the message of the peaceful atom.”³²

In sum, all three major national newspapers drew a line between peaceful and military uses of nuclear power during the Occupation. Far from criticizing or opposing the use of nuclear power for electric generation, they showed strong interest in the potential of nuclear power. The

Asahi and the *Mainichi* slightly more actively editorialized in support of nuclear power than the *Yomiuri* at this time. From October 1945 to October 1949 (during the Occupation), reportage of the atomic bombings of Hiroshima and Nagasaki was limited due to censorship.³³ Only a very small number of books related to atomic issues passed the censors.³⁴ Visual images of the A-bomb destruction were not available until a magazine, *Asahi Gurafu*, published by the *Asahi Shinbun*, featured photos of the destructions, and a pictorial book, *Hiroshima: Senso to Toshi* (Hiroshima: War and the City), was published by Iwanami Shoten, in August 1952.³⁵ That is, the public was shielded from images and discussion of the real horrors of the Hiroshima and Nagasaki bombings throughout the occupation.³⁶ As a result, the dangers of radiation were not widely known to the Japanese. In addition, with nuclear electricity was still under development outside of Japan, potential risks of nuclear power were unknown to most Japanese. The three major newspapers took the lead in popularizing the peaceful use of nuclear power from the early Occupation.

In addition, as Dower notes, in the immediate postwar period, Japan's political leaders repeatedly attributed Japan's backwardness in science and technology compared with US success in the development of atomic bombs to explain Japan's defeat.³⁷ They stressed that Japan would need improvement in science and

technology for a better future; as a result, the A-bomb became "simultaneously a symbol of the terror of nuclear war and the promise of science" for the Japanese.³⁸ Tanaka similarly acknowledges this dual nature of the A-bomb for the Japanese, writing that the Japanese tended to accept science and technology without question when used for peace and prosperity.³⁹ The three newspapers hoped that nuclear power would be an instrument to realize a better future for Japan. That is, they viewed nuclear power as a symbol for the promise of science.

The Post-Occupation Period, 1952-1953

The San Francisco Peace Treaty was signed on September 8th, 1951, and the treaty went into effect on April 28th, 1952, the day the occupation of Japan officially ended. The ban on nuclear power research also ended. In October 1951, physicist members of *Nihon Gakujutsu Kaigi* the Japan Science Council, a special organization of academics set up by the government, including not only natural scientists but also academics of the social sciences and humanities, anticipating the removal of the ban on nuclear power research, began to discuss its possibility. Although several physicists argued that the JSC should promote nuclear power research, many other members feared that nuclear power research would contribute to nuclear armament; as a result, the JSC could not reach any decision for the next two years.⁴⁰ This section focuses on the years from 1952 to 1953 to examine how the

three major newspapers handled the peaceful use of nuclear power against the backdrop of the turbulence within the JSC.

The *Asahi* reported the disagreement over the introduction of nuclear power research in October 1952. One article titled, “Haran Yobu Genshiryoku Mondai” (Nuclear Issue Raises Turbulence), explained the disagreement, noting that some members assumed the research would be used for nuclear weapons.⁴¹ In November, the *Asahi* featured two essays written by a proponent of nuclear research, Fushimi Koji, a Tokyo University physicist, and an opponent, Sakata Shoichi, a Nagoya University professor.⁴² The *Mainichi* summarized the conflict in the JSC on October 20th. The *Yomiuri* also covered the turbulence on October 23rd and 24th. According to Yoshioka, opponents of nuclear power research feared that the research would be incorporated into US efforts for nuclear arms development, having observed the Korean War and Japan’s remilitarization pushed by the United States. But they did not oppose nuclear power research for peaceful uses *per se*.⁴³

Regardless of the conflict at the JSC, the three major newspapers continued to pay close attention to the peaceful use of nuclear power while distinguishing it from nuclear weapons. In December 1952, the *Asahi* published a series of four articles discussing the nuclear power generation in the United States. “*Genshiryoku to Hatsude*” (Nuclear Power and Electric

Generation) was written by Tanaka Shinjiro, the head of *Asahi’s* research and study department (*Chosa Kenkyu Shitsuchō*). The series introduced US development of nuclear electric generation technology and commercial nuclear power.⁴⁴ Tanaka noted in the first article:

“In Japan, many Japanese people, as the first victims of atomic bombings, think only of atomic bombs when they hear nuclear power. Also, newspapers quite often cover nuclear weapons, including hydrogen bombs, in their international news sections. In these circumstances, people tend to gain only lopsided knowledge of nuclear power.... So, let us consider the significance of nuclear power in the future, by observing recent issues of nuclear electric generation in the United States.”⁴⁵

Tanaka intended to educate the Japanese about nuclear power generation as an example of the peaceful use of nuclear power. Actually, as vice-chair of the editorial board, Tanaka had written *Asahi’s* editorial of January 22nd 1946 discussing the potential of nuclear power for peaceful purposes.⁴⁶ In March 1953, Tanaka published a book, in which he pointed to the shortage of energy sources in Japan and the efficiency of nuclear electricity generation.⁴⁷ In April 1953, Tanaka was invited to lecture members of the JSC on nuclear power.⁴⁸

In November 1952, the United States succeeded in the development of hydrogen bombs. Hearing

this news, the *Mainichi* complained about the lack of international control of nuclear weapon development in its editorial on November 18, “*Suibaku no Jikken wo Kikita* (Having Heard the Hydrogen Bomb Test). This editorial, however, said that “we cannot stop the advancement of science, and we should not. The question is how humankind will use it,” and went on to argue that “the success of the hydrogen bomb...has drastically boosted the hopes for the peaceful use of nuclear power, too.” The *Asahi’s* “*Tensei Jingō*” on November 19th, also noted, “It is indeed brilliant to see that humankind extracted unlimited power from the nucleus,” while expressing the hope that nuclear power would be used only for peaceful purposes. The *Yomiuri* like the *Mainichi* and the *Asahi* found hopes for the peaceful use of nuclear power in the American-made hydrogen bomb on January 1, 1953. The *Yomiuri* published a set of articles on a round-table talk by eight Japanese scientists on the two feature pages. The articles were titled “*Suibaku wo Heiwa ni Tsukau* (Hydrogen Bombs to Be Used for Peace).⁴⁹ The introduction said, “The Japanese who experienced the atomic bombs have a strong concern about the hydrogen bomb; at the same time, we strongly hope nuclear power will be used for peaceful purposes.” The scientists in those articles discussed the potential of nuclear power for a variety of industries, such as electric power generation and transportation.

On January 5, 1953, the *Asahi* translated an article from the New York Times on the development of nuclear weapons and nuclear power generation in the United States.⁵⁰ In January and February, a couple of essays in the *Asahi* by Japanese scholars expressed the hope to use nuclear power in their respective research fields.⁵¹ In addition, the *Asahi* featured a translated essay written by Charles Allen Thomas, a crucial member of the Manhattan Project, in its morning edition on April 17th.⁵² Thomas discussed the potential of nuclear power for such things as medical treatment and electric power generation. The *Asahi* introduced the essay saying, “The day is coming when a discovery that resulted in atomic bombs will be used for medicine and transportation technology.”

On the eighth anniversary of the Hiroshima bombing, August 6, 1953, the *Mainichi* called for arms control talks in its editorial, “*Genbaku no Hi ni Omou*” (Thoughts on the A-bomb Anniversary). The editorial stressed recent advances in the peaceful use of nuclear power and called on countries throughout the world to compete in the development of peaceful uses of nuclear power. In the same month, the *Asahi* responded to the *Mainichi* editorial with a front-page article in the morning edition on August 22nd to report the state of peaceful nuclear power research in ten countries including the United Kingdom and France. Its introduction noted, “The peaceful use of nuclear power will

bring a country like Japan countless benefits.... the shortage of energy resources is being resolved.”⁵³

In addition, on September 14th, the *Asahi* featured a page, titled “*Genshiryokujidai to Nihon no Shora?* (The Nuclear Era and the Future of Japan), to introduce a roundtable of eight physicists from five countries, including four Japanese physicists.⁵⁴ The physicists discussed the peaceful use of nuclear power along with its military use and what Japan should do with nuclear power research in light of the conflict at the JSC. This roundtable did not endorse a position on Japan’s nuclear power research; however, the introduction written by an *Asahi* writer noted that “nuclear power is essentially the apostle of peace and can do more than pay for its crime,” drawing on a remark by a participating French physicist. It also suggested that prohibiting nuclear power research for its possible military uses is like banning a knife at the dinner table for its possible use for murder. The *Asahi* might well be interpreted as critical of opponents of nuclear research at the JSC.

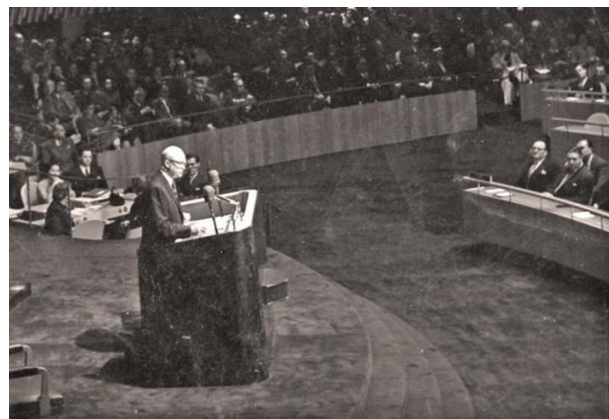
The three major newspapers were apparently ready to accept the peaceful use of nuclear power research by Japanese scientists. Even the newly developed hydrogen bomb could be a symbol of the peaceful use of nuclear power. That was before Eisenhower’s “Atoms for Peace” speech.

The Lucky Dragon Incident and the Peaceful Use

of Nuclear Power

The year 1954 is critical for understanding the early stage of Japan’s nuclear power history. This section discusses how the three major newspapers addressed the question of nuclear power research against the backdrop of the rising anti-bomb movement after the Lucky Dragon Incident. The incident, however, had little impact on their perceptions of nuclear power.

On December 8, 1953, at the UN General Assembly, President Eisenhower announced that the United States would support the establishment of an international organization under the United Nations to control international trade and storage of nuclear resources such as Uranium.



Eisenhower addresses the UN on “Atoms for Peace”

The US would, he said, facilitate the peaceful use of nuclear power, including nuclear energy generation, in other countries, while emphasizing US readiness to negotiate with the Soviet Union to halt the nuclear arms race.⁵⁵ The three major

newspapers reported Eisenhower's announcement as the top stories on the front page in their evening edition on December 9th. Their editorials on December 10th, "*Bei-Daitoryo no Shinteiaff* (New Proposal by the US President) in the *Asahi*, "*Genshiryoku Mondai no Atarashi Michi*" (New Path for Nuclear Problems) in the *Mainichi*, and "*Genshijidai no Kyofu wo Nozokutame ni*" (To Remove the Horrors in the Atomic Era) in the *Yomiuri*, hoped that Eisenhower's announcement would open talks between the West and the East to ease the tensions of the nuclear arms race. The *Mainichi* praised it as "a practical, productive proposal" and hoped that it would "transform nuclear power from horrors into hopes." The *Yomiuri* argued, "Now the world should make efforts to ban nuclear weapons effectively and find a way to use nuclear power only for peaceful purposes." Yet, the *Asahi* doubted that the Soviet Union would accept international control of nuclear resources for peaceful purposes.

The *Yomiuri* promptly responded to Eisenhower's announcement early the next year. From January 1st to February 9th 1954, it published a series of 31 articles titled, "*Tsuini Taiyo wo Toraefta* (Finally We Have Caught the Sun), in the social affairs section and reported on the peaceful and military uses of nuclear power and the history of nuclear research. The first article reviewed recent efforts made by Japanese physicists to start nuclear power research and

emphasized the potential of nuclear energy and Japan's shortage of other energy sources such as oil and coal. The next two articles shed light on the peaceful use of nuclear power, electric generation, nuclear powered engines, and nuclear medicine. However, the *Yomiuri* discussed the early stage of nuclear physics from the fourth to twelfth articles, and reviewed the competition of nuclear weapons by WWII powers, including the United States, Germany, and Japan from the thirteenth to twenty-third articles. The rest of the series, articles 24 to 31, discussed recent issues on both military and peaceful uses of nuclear power. In short, the series not only showed the bright side of nuclear power but also the dark side.

The series was followed by *Yomiuri's* exhibit from August 12th to 22nd, in Tokyo: "*Dare nimo Wakaru Genshiryoku-ten: Jinrui no Heiwa to Bunmei no tame ni*" (Nuclear Power Exhibit for Everyone for the Peace of Humanity and Civilization). According to the advertisement published in its morning edition on August 9th, it exhibited peaceful as well as military uses of nuclear power, including the development of nuclear weapons, radiation risks, and nuclear power for electric generation and transportation, along with photos and descriptions of the Hiroshima and Nagasaki atomic bombings and US hydrogen bomb tests.⁵⁶ Even the fishing equipment of the Lucky Dragon #5 was displayed. The advertisement said, "the Japanese as a nation that

experienced the A-bomb disasters and the damage of the hydrogen bomb test for the first time in the world truly hope to see the disposal of nuclear weapons and the international control of nuclear power,” stressing that the event was held to commemorate the ninth anniversary of the Hiroshima and Nagasaki atomic bombings. The *Yomiuri* set out to display the peaceful use of nuclear power along with the destruction of nuclear weapons.

On March 4th, about the time the fishermen of Lucky Dragon #5 were exposed to the US hydrogen bomb test at Bikini Atoll but before their return to Japan, the Diet passed a budget funding nuclear reactor studies, and in early April, the budget took effect.⁵⁷ Politicians of the Kaishinto, a conservative party, including Nakasone Yasuhiro, who became the Prime Minister in the 1980s, introduced the budget. Nakasone had learned the importance of nuclear power generation in the United States in the previous year, and he quickly responded to Eisenhower’s proposal.⁵⁸

Nonetheless, it came as a surprise for Japanese physicists. In the previous year, the JSC already proposed the establishment of a research institute of nuclear physics, refraining from calling for nuclear power generation.⁵⁹ The JSC had decided to emphasize basic studies rather than applied studies of nuclear power. After the budget passed in the Lower House, the JSC proposed that the Diet fund a research institute of nuclear

physics, instead of the budget for nuclear reactor studies.⁶⁰ The JSC also called on the Diet to declare that nuclear power research must be exclusively for peaceful purposes.

The three major newspapers responded to the conflict between the Diet and the JSC. The *Yomiuri* in its editorial on March 13th, “*Genshiro Yosan Mondai ni Yosefu* (Regarding the Nuclear Reactor Budget), expressed understanding for the JSC’s reactions but contended that “it is time for Japan to make genuine efforts to build a nuclear reactor” for peaceful purposes. On the other hand, the *Asahi* in its editorial on March 4th, “*Genshiro Yosan wo Sakujo Seiyu* (Cancel the Budget for Nuclear Reactor), asked the Diet to rethink the budget for nuclear reactor research, and its editorial on April 10th, “*Genshiryoku Yosan no Tsukaimichi* (Purpose of the Nuclear Budget), blamed the politicians for disregarding the physicists who knew more about nuclear science and technology than the politicians. However, the *Asahi* did not deny the need for nuclear power research in general.

The *Mainichi* in its editorial on March 13th, “*Genshiryoku Kenkyu ni Kitai suru*” (Hopes for Nuclear Power Research), supported the Lower House decision saying that, “nuclear power research is necessary.” However, in its editorial on April 4th, “*Genshiryoku Kenkyu to Seiji*” (Nuclear Research and Politics), the *Mainichi* expressed concern about the gap between the politicians and the scientists. The editorial also

worried over the independence of Japan's nuclear research against the backdrop of US-Soviet competition, but it did not oppose the introduction of the peaceful use of nuclear power to Japan. By the time of the publication of *Mainichi's* editorial, physicists, along with the JSC, had proposed three principles for Japanese nuclear research—1) peaceful research, 2) openness of research, and 3) democratic treatment of scientists.⁶¹

In the meantime, the tragedy of the Lucky Dragon #5 was reported on March 16th. The *Yomiuri* was the first to cover the incident in its morning edition on that day.⁶² The tuna boat encountered the hydrogen bomb test on March 1st, and took days to return to its mother port in Shizuoka. Informants of *Yomiuri* reporters, who saw the fishermen, guessed that they suffered from radiation diseases, based on what those informants had read and learned from *Yomiuri's* earlier series.⁶³ Other major newspapers followed in their evening editions on the same day. The incident frightened many Japanese about the danger of nuclear bomb tests and the potential for nuclear war, as well as igniting fears that their daily life was in danger from radiation-contaminated food like tuna.



Scientists test tuna for radioactive contamination following the Lucky Dragon No. 5 incident

Soon petition campaigns spread across Japan. The three major newspapers responded through their editorials. From the reportage of the incident in March to the death of one of the tuna boat fishermen, Kuboyama Aikichi, in September 1954, the *Asahi* published eight editorials, the *Mainichi* five editorials, and the *Yomiuri* ten editorials, expressing the uneasiness that the Japanese experienced at that time and demanding international control or ban of nuclear bomb tests. But the incident did not lead the three newspapers to question the peaceful use of nuclear power.

The *Asahi* editorials demanded international control or a ban on nuclear bomb tests, while questioning the United States for its reaction to the incident as well as treatment of the victims of the tuna boat. Its editorial of March 18th, “*Genbaku Hoyukoku ni Yosei Sūr* (Demands for States with A-Bombs), criticized the US government for its claim that “anti-American

activists would use this incident.” The *Asahi* in this editorial argued that the US government called for international responses to nuclear bomb tests in the Pacific Ocean. Similarly the *Asahi* editorial on April 3rd, “Genshiryoku Kanri no Ketsugi wo Ikase” (Make Use of the Resolution for Control of Nuclear Weapons), blamed the United States for claiming that Japan had exaggerated the damage of the hydrogen bomb test. In addition, the *Asahi* editorial on September 25th, “Kuboyama-san no Shi wo Ita” (We Lament the Passing of Mr. Kuboyama), expressed hope that the tragedy of the Lucky Dragon #5 would have a positive impact on the international ban on nuclear weapons. Likewise, its editorial on September 26th, “Genshiheiki Kinshi to Nihon no Tachiwa” (Ban on Nuclear Weapons and Japan’s Position).

In addition to eight editorials on the incident, the *Asahi* published two editorials discussing the peaceful uses of nuclear power. The editorial on July 2nd, “Soren no Genshiryoku Hatsuden” (Nuclear Power Generation in the Soviet Union), favorably discussed the Soviet Union’s recent success in nuclear power generation and hoped that the current nuclear arms race between the two superpowers would evolve into a competition for the peaceful use of nuclear power that “would provide humanitarian virtues.”

The *Mainichi* also called for international control of nuclear power and nuclear weapons tests in its

editorials, “*Bikini no Shiroi Hāi* (White Ash of Bikini) on March 17th and “*Gunshukui no Suibaku Togi wo Mimamo*” (Let’s Observe Discussion at the UN Disarmament Commission) on April 7th. Its editorial on March 28th, “*Genshiheiki e no Kaigi*” (Skepticism for Nuclear Weapons), expressed concern that the incident would damage the US-Japan relationship. Meanwhile, the *Mainichi* published an editorial on July 2nd, “*Genshiryoku Hatsuden Kaishisaru*” (Nuclear Power Generation Begins), praising the Soviet Union’s success in nuclear power generation for industrial uses. The *Mainichi* also hoped that Japan would become a member of the international community carrying out nuclear research for peaceful purposes. This editorial called nuclear power “Jekyll and Hyde” and noted that Soviet success in nuclear electricity proved nuclear power to be “a good and gentle Jekyll.” But the editorial stressed, “The Hiroshima and Nagasaki bombings and the hydrogen bomb test at Bikini Atoll remind us of a dark, demonic Hyde.” The *Mainichi* clearly embraced the dual nature of nuclear power in this editorial. The *Mainichi* editorial on August 6th, “*Genshiryoku wo Heiwa no Michi*” (Nuclear Power for the Path to Peace), again discussed the two sides of nuclear power, referring to the Soviet nuclear power generation and the hydrogen bomb test at Bikini Atoll. The *Mainichi* lamented the passing of Kuboyama in its editorial, “*Suibaku Jikken no Hatsu no Giseisha*” (First Victim of the Hydrogen Bomb Test), on

September 25th. This editorial asked the United States and the Soviet Union to stop testing nuclear weapons, while expressing hope that peaceful use of nuclear power would replace the nuclear arms race.

The *Yomiuri* distinguished the military uses of nuclear weapons from the peaceful uses of nuclear power in editorials from March to September 1954, urging an international ban on nuclear weapons and their tests, support for the ban-the-bomb movement, and endorsement of the peaceful uses of nuclear power. Its editorial on March 26th, “*Futatabi Genshiryoku no Fuan ni tsuite*” (About Fear of Nuclear Power Again), criticized the United States for disregarding the damages of the Lucky Dragon #5 and the suffering of the fishermen, and blamed the US and others for competing in the nuclear arms race. The editorial implied that the Japanese had the right to say no to the arms race and yes to nuclear power for peaceful purposes:

“We have unfortunately had to observe the truths of the disasters. We, thus, demand the immediate ban on nuclear weapons and insist on the peaceful use of nuclear power. This is what the Japanese are entitled to.”

The editorial did not clearly explain what the disasters (*saiga*) were, but the context suggests the Hiroshima and Nagasaki bombings and the Lucky Dragon Incident. The peaceful and military uses are clearly opposite to each other in

this editorial.

In early April, both Houses of the Diet passed resolutions urging the United Nations to promote the international control of nuclear power, a ban on nuclear weapons, prevention of victimization of nuclear weapon tests, and the peaceful uses of nuclear power.⁶⁴ The Diet resolutions also drew a line between the military and peaceful uses of nuclear power. The *Yomiuri* editorial on April 6th, “*Suibaku no Kyofu kara no Jiyu wo*” (Freedom from the Fear of Hydrogen bombs), noted that those resolutions expressed “hopes from the bottom of the heart of the nation of eighty million people who experienced three perils of nuclear weapons.”

However, the *Yomiuri* in its editorial on July 11th, “*Shinni Taiyo wo Toraeru Mono*” (Those who Truly Catch the Sun), pointed out that radiation problems would be created even by the peaceful uses of nuclear power, such as dealing with radioactive residues produced by nuclear power. But it hoped that advances in nuclear power technology would overcome such problems. In the meantime, the *Yomiuri* strongly supported the ban-the-bomb movement in three editorials, “*Genbaku Kinenbi ni Kotaeru no Michi*” (How to Respond to the A-bomb Anniversary) on August 6th, “*Bikini no Gisei*” (Victims of Bikini) on September 2nd, and “*Kuboyama-san no Gisei wo Ikae*” (Give Meaning to the Death of Mr. Kuboyama) on September 25th. These editorials hoped that the movement would be stronger and

spread worldwide. These editorials contradicted the intention of Shoriki and Shibata, who did not want the movement to become stronger and more widespread, suggesting that they could not or did not control the *Yomiuri's* editorial board at all times.

In sum, from March to September 1954, the three major newspapers argued against the military use of nuclear power, but did not oppose its peaceful uses while observing the Lucky Dragon #5 Incident and the rise of anti-nuclear sentiments and movements in Japan. That is, the three major newspapers drew a line between the two different uses of nuclear power even in that year. The *Yomiuri* was not the only promoter of the peaceful use of nuclear power or nuclear electric generation even in 1954, when the dark side of nuclear power was highlighted in Japan.

In addition, the *Mainichi* and the *Asahi* each published series of articles on nuclear power and weapons from the end of 1954 to early 1955, well before the *Yomiuri* Atoms for Peace exhibit. The *Mainichi* published eight front-page articles on “*Dai-san no Hi* (The Third Fire), reporting on the emerging US nuclear-power industry, from December 23 to 30, 1954. For the *Mainichi*, nuclear power produced the third fire, following the fire produced by nature and the fire produced by artificial means. A special correspondent traveled to places like Tennessee and Illinois to cover nuclear reactors, nuclear electric generation, and other uses of nuclear power in agriculture,

medicine, and transportation. The first article pointed out the dual nature of nuclear power, saying, “Nuclear energy is honest. It can be hellfire or fire for peace.” In addition, from January 12th to 27th, the *Mainichi* published another series of fifteen articles titled “*Dai-san no Hi: Nihon no Mebae*” (The Third Fire: Fledging of Japan) in the social affairs section. The first article contends, “We no longer can return to the age without nuclear power; our assignment in this circumstance is to choose a better direction.” The series focused on various issues from the Diet’s budget for nuclear reactor studies to the recent development of nuclear electric generation and the boom in translated publications on nuclear research. The eleventh article stressed the risks of nuclear power generation in Japan through a reactor accident. It speculated that an earthquake might cause an accident, and noted that a reactor could emit fatal radioactive materials. It also pointed out that a reactor accumulates radioactive residues, which Japan as a small country might have difficulties in disposing. Yet, the series overall did not reject the peaceful uses of nuclear power.

On August 6th, the tenth anniversary of the Hiroshima atomic bombing, the *Asahi* began a series of twelve front-page articles titled, “*Genshigumo wo Koētō* (Overcoming the Atomic Cloud). The first article appeared with a photo of the atomic cloud of the Hiroshima bombing. Its introduction stated, “nuclear power is about to

advance through two different paths to weapons and peaceful use.... We, overcoming the atomic cloud of curse and sorrow, clear the path to our new history with an open mind." The first eight articles introduced the history of nuclear weapons development, including wartime Japan's attempts to construct A-bombs, but the last four stressed the potential of nuclear power for peaceful purposes and introduced the state of Japan's nuclear electric generation studies. Although those referred to difficulties for Japan in acquiring technology, devices, and sources of nuclear power generation, they did not reject the peaceful uses of nuclear power *per se*

Conclusion

This article has focused on Japan's three major newspapers. The *Nihon Keizai Shinbun*, the leading business newspaper, and the *Chugoku Shinbun*, a major local newspaper in Hiroshima Prefecture, also discussed the peaceful uses of nuclear power in 1954.

The *Nikkei* launched a feature page titled "*Genshiryoku Jidai*" (The Era of Nuclear Power) in its morning edition on April 5th, three weeks after the Lucky Dragon #5 Incident was disclosed, in order to update academic research on nuclear power in the world and Japan, including its commercial potential. The featured page was published almost every Monday from April 1954 to March 1959.⁶⁵ The announcement on the front page in the April 5th morning

edition noted, "The Japanese as a nation that experienced the A-bombs and the nuclear fallout from the hydrogen bomb test have the greatest interest in nuclear power (of any nation)," and stressed that nuclear power was "a peaceful power source to bring about another industrial revolution." In addition, on August 6 1954, the ninth anniversary of the Hiroshima bombing, a *Nikkei* editorial, "*Genbaku Kinshi e no Doryoku*" (Effort to Ban A-Bombs), noting that Japan had the right to argue for the prevention of nuclear war, called on Japanese academics to promote nuclear research for peaceful purposes. For the *Nikkei* too, Japan's atomic and hydrogen bomb experiences were reasons for pursuing nuclear power.

The *Chugoku* noted that "nuclear power must be used for constructive, peaceful purposes" in its editorial on March 18th 1954, "*Bikini Kansho no Genbaku Jikken wo megutte*" (Regarding the A-bomb Test at Bikini). It, too, argued in its editorial of August 6, 1954, "*Kutabi Genbaku Kinenbi wo Mukae*" (Ninth Anniversary of the Hiroshima A-bombing), that "it is up to the United States and the Soviet Union whether nuclear power will be used for peaceful purposes that contribute to the happiness of humanity." The *Chugoku* also drew a line between the peaceful and military uses of nuclear power. This does not necessarily mean that all A-bomb victims in Hiroshima accepted the peaceful uses of nuclear power, according to Zwigenberg.⁶⁶

However, when US Congressman Sidney Yates proposed building a nuclear power plant in Hiroshima, the *Chugoku* argued that it should be considered very carefully with concern for A-bomb victims, but did not oppose it in its January 29, 1955 editorial, "Genshiryoku Hatsuden to Hiroshima" (Nuclear Power Plant and Hiroshima).

This article does not deny the collaboration between the *Yomiuri* and the United States and their campaign through the press and exhibits to promote the peaceful uses of nuclear power around the mid-1950s. Nonetheless, this article sheds doubt on a literature that uniquely emphasizes the *Yomiuri* relations with the US government and disregards the strong and consistent support of all major newspapers for nuclear power. As this article has shown, not only the *Yomiuri* but also the *Asahi* and the *Mainichi* distinguished nuclear power from nuclear weapons, and consistently differentiated the two over the ten years following the end of the war. That is, the three major newspapers began to forge a new Japanese identity through which the Japanese as the first victims of nuclear weapons oppose the military uses of nuclear power while supporting the peaceful uses. The *Asahi* and the *Mainichi* were the two largest newspapers, and the *Yomiuri* was third. The press at that time was much more influential than today as television and radio were underdeveloped. There is no reason to ignore the

first and second largest newspapers or rely solely on the *Yomiuri* in order to draw a fuller picture of Japanese perceptions of nuclear power at that time. Further studies are necessary to understand how and when the Japanese, beyond the circle of the major newspapers, began to embrace the peaceful uses of nuclear power.

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Notes

¹ Sano Shinichi, *Kyokaiden: Shoriki Matsutaro to Kagemushatachi no 1-seiki* (Tokyo: Bungei

Shunjusha 1994); Arima Tetsuo, *Genpatsu/ Shoriki/ CIA* (Tokyo: Shinchosha 2008); Arima Tetsuo, *Nihon Terebi to CIA* (Tokyo: Takarajimasha 2011)—this book was originally published by Shinchosha in 2006.

² The authors include: Kainuma Hiroshi, *“Fukushimū-ron* (Tokyo: Seidosha 2011); Karasudani Masayuki, “Sengo Nihon no Genshiryoku ni kansuru Shakai Ninshiki,” in Oishi Yutaka ed. *Sengo Nihon no Media to Shimin Ishiki* (Kyoto: Minarva Shobo 2012), pp. 183-240; Shichizawa Kiyoshi, “Terebi to Genshiryoku: Sengo Nidai Shisutemu no 50-nen: vol. 1,” in *Sekai* (July 2008), pp. 228-236; Taguchi Randy, *Hiroshima, Nagasaki, Fukushima* (Tokyo: Chikuma Shobo 2011); Takeda Toru, *Watashitachi wa Koshite “Genpatsu Taikoku” wo Eranda* (Tokyo: Chuo Koron Shinsha 2011); Yamaoka Junichiro, *Genpatsu to Kenryoku* (Tokyo: Chikuma Shobo 2011); Yamazaki Masakatsu, *Nihon no Kaku Kaihatsu 1939~1955* (Tokyo: Sekibundo 2011).

³ Taguchi, *Hiroshima, Nagasaki, Fukushima* pp. 118-119.

⁴ Yamaoka, *Genpatsu to Kenryoku* pp. 56-71.

⁵ Ikawa Mitsuo, “Genshiryoku Heiwa Riyo Hakurankai to Shinbunsha,” in Tsuganesawa Toshihiro ed., *Sengo Nihon no Media Ibento 1945-1960 nen*, (Kyoto: Sekai Shisosha 2002), pp. 247-265.

⁶ In 1953, the *Asahi* sold 6.7 million copies

(morning and evening editions combined) per day, the *Mainichi* 6.4 millions, and the *Yomiuri* 3.4 millions. See Ariyama Teruo, ed. *Senryoki Shinbun Shiryoshusei, Dai 5-kan* (2001, Tokyo: Yumani Shobo).

⁷ Shibata Hidetoshi, *Sengo Masukomi Kaiyuki* (Tokyo: Chuo Koronsha, 1995), pp. 65-72 in volume 2. The book was republished in two volumes from the original in 1985.

⁸ *Ibid.*, p. 72-73 in volume 2.

⁹ Yamazaki, *Nihon no Kakukaihatsu: 1939-1955* p. 201.

¹⁰ “Gensuibaku Kinshi Shomei 1,400-man nin,” in *Asahi Shinbun*, morning edition (October 24, 1954), p. 7.

¹¹ “6-okunin no Ishi: Gensuibaku Kinshi Shomei,” in *Asahi Shinbun*, evening edition (August 5, 1955), p. 2.

¹² Yamazaki Masakatsu and Okuda Kenzo, “Bikini Jiken go no Genshiro Donyu-ron no Taito” in *Kagakushi Kenkyū* no. 43 (2004), pp. 83-93.

¹³ Sano, *Kyokaiden* p. 523.

¹⁴ Karasudani, “Sengo Nihon no Genshiryoku ni kansuru Shakai Ninshiki,” p. 191.

¹⁵ Kenneth Osgood, *Total Cold War: Eisenhower’s Secret Propaganda Battle at Home and Abroad* (Lawrence, KS: University Press of Kansas 2006),

p. 3.

¹⁶ Ikawa, "Genshiryoku Heiwa Riyo Hakurankai to Shinbunsha," p. 252.

¹⁷ Ikawa, "Genshiryoku Heiwa Riyo Hakurankai to Shinbunsha," pp. 247-265.

¹⁸ Ran Zwigenberg, "'The Coming of a Second Sun': The 1956 Atoms for Peace Exhibit in Hiroshima and Japan's Embrace of Nuclear Power," *The Asia-Pacific Journal* Vol. 10, Issue 6, No 1 (February 6, 2012) <http://japanfocus.org/-Ran-Zwigenberg/3685>.

¹⁹ See Yoshioka Hitoshi, *Shinpan: Genshiryoku no Shakaishi* (Tokyo: Asahi Shinbunsha, 2011), p. 61, and Yoshioka Hitoshi, "Nuclear Power Research and the Scientists' Role" in Nakayama Shigeru et al., *A Social History of Science and Technology in Contemporary Japan, Volume* (2005, Melbourne, Australia: Trans Pacific Press), pp. 104-124.

²⁰ Unlike editorials, the front-page column does not necessarily represent *Asahi's* views. But it is written by a leading *Asahi* writer and has enjoyed high reputation over the years.

²¹ Boyer, Paul, *Fallout: A Historian Reflects on America's Half-Century Encounter with Nuclear Weapons* (Columbus: Ohio State University Press, 1998).

²² "Genshiryoku wo Heiwa Riyo," in *Asahi Shinbun*, morning edition (September 6, 1947), p.1.

²³ "Bei, Hoshasei Isotopu Kokai, To-daitoryo, Gensiryoku no Heiwateki Riyo," in *Yomiuri Shinbun*, morning Edition (September 10, 1947), p. 2.

²⁴ "Genshiryoku de Hatsuden Sochi, Beikoku ga Nenmatsu ni Kokai Jikken," in *Asahi Shinbun*, morning edition, January 30, 1948, p. 2.

²⁵ "Genshiryoku no Doryokuka ni Seiko, Bei-Genshiryoku Iinkai de Happyo," in *Asahi Shinbun*, morning edition (December 30, 1951), p. 1: "Bei de Genshiryoku Hatsuden ni Seiko," in *Mainichi Shinbun*, morning edition (December 30, 1951), p. 1; "Bei Genshiryoku no Denkika ni Seiko su," in *Yomiuri Shinbun*, morning edition (December 20, 1951), p. 1.

²⁶ "Genshi Enerugi, Heiwa Sangyo ni Katsuyo Sureba, Jiu wo Yobi, Taifu wo Tomeru," in *Yomiuri Shinbun*, morning edition (July 26, 1946), p.3.

²⁷ "Nippon no Kagaku Atarashiki Michi; Nishina Hakushi ni Kiku," in *Yomiuri Shinbun*, morning edition (March 4, 1946), p. 2.

²⁸ "Genshiryoku to heiwa: Nishina Yoshio," in *Yomiuri Shinbun*, morning edition, August 1, 1948: p. 2.

²⁹ "Heiwa to Genshiryoku, Nishina Yoshio," in *Mainichi Shinbun*, morning edition (February 17, 1947), p. 2.

³⁰ "Genshiryoku no Heiwateki Riyo," in *Yomiuri*

Shinbun, morning Edition (February 13, 1949), p. 2

³¹ "Lilienthal-shi Genshiryoku Jodan," in *Yomiuri Shinbun*, morning edition (January 1, 1950), p. 5.

³² Boyer, *Fallout*, p. 29.

³³ According to Yamamoto, SCAP censored the Japanese media from September 1945 to October 1949. Major newspapers became the subject of pre-publication censorship in October 1945. But the SCAP switched to post-publication censorship for major newspapers in July 1947, relying more on newspapers' self-censorship. See Yamamoto, Takeshi, *Senryoki Media Bunseki* (Tokyo: Hosei Daigaku Shuppankyoku, 1996)

³⁴ For details of the A-bomb-related US censorship issues, see Monica Braw, *The Atomic Bomb Suppressed: American Censorship in Occupied Japan* (Armonk, NY: M.E. Sharpe, 1991).

³⁵ Yamazaki, *Nihon no Kakukaihatsu: 1939-1955*, pp. 125-126.

³⁶ *Ibid.*, p. 124.

³⁷ John W. Dower, "The Bombed: Hiroshima and Nagasaki in Japanese Memory," in *Diplomatic History*, vol. 19, no. 2 (Spring 1995), pp. 275-295.

³⁸ *Ibid.*, p. 279.

³⁹ Tanaka Yuki, "'Genshiryoku Heiwa Riyo' no Ura ni aru Shinjitsu," in *Kagaku* Vol. 81, Issue. 12 (December 2011), pp. 1284-1286.

⁴⁰ Yamazaki, *Nihon no Kakukaihatsu: 1939-1955*, pp. 127-151; Yoshioka, *Genshiryoku no Shakaiishi* pp. 63-68.

⁴¹ "Nihon Gakujuutsu Kaigi Haran Yobu Genshiryoku Mondai," in *Asahi Shinbun*, morning edition (October 18, 1952), p. 7.

⁴² Fushimi Yasuharu, "Naze Genshiryoku Kaihatsu wo Suishin Suru no ka," in *Asahi Shinbun*, morning edition (November 4, 1952), p. 4; Sakata Shoichi, "Nihon ni okeru Genshiryoku no Mondai," in *Asahi Shinbun*, morning edition (November 5, 1952), p. 4.

⁴³ Yoshioka, *Shinpan: Genshiryoku no Shakaiishi* pp. 63-68.

⁴⁴ The series of four articles appeared on page 4 of the morning editions published on December 2, 3, 4, and 6, 1952.

⁴⁵ "Genshiryoku to Hatsudei Bei-zaikaijin Yatto Chumoku," in *Asahi Shinbun*, morning edition (December 2, 1952), p. 4.

⁴⁶ Kishida Junnosuke, "Tanaka-san ga Tsukutta Choken no Shitsufu," in *Asahi Shinbunsha Sogo Kenkyu Senta Chosa Kenkyushitsu ed. Choken no 50-nen* (Tokyo: *Asahi Shinbunsha*, 1997)

⁴⁷ Tanaka Shinjiro, *Genshiryoku to Shakai* (Tokyo: *Asahi Shinbunsha*, 1953)

⁴⁸ Yamazaki, *Nihon no Kakukaihatsu: 1939-1955*, pp. 143-144.

- ⁴⁹ Those articles were on page 10 and page 11. (April 27, 1953), p. 6.
- ⁵⁰ "Genshiryoku Mondai no Kaiko to Tenbo," in *Asahi Shinbun*, morning edition (January 5, 1953), p. 3.
- ⁵¹ Senya Toshizo, "Genshiryoku Jidai" in *Asahi Shinbun*, morning edition (January 9, 1953), p.6; Sakikawa Noriyuki, "Watashi wa Genshi Doryoku no Kenkyu ga Shitai," *Asahi Shinbun*, morning edition (February 8, 1953), p.6.
- ⁵² "Genshiryoku no Heiwateki Riyo," in *Asahi Shinbun*, morning edition (April 17, 1953), p.3.
- ⁵³ "Heiwa Riyo wa Eikoku ga Sentan," in *Asahi Shinbun*, evening edition (August 22, 1953), p.1.
- ⁵⁴ "Genshiryoku Jidai to Nihon no Shorai," in *Asahi Shinbun*, morning edition (September 14, 1953), p. 4.
- ⁵⁵ "Atoms for Peace Speech," in *International Atomic Energy Agency* Accessed on August 12, 2012.
- ⁵⁶ According to the advertisement, Japanese ministries, but no US institution, such as the Ministry of Education co-supported this event.
- ⁵⁷ Yoshioka, *Shinpan: Genshiryoku no Shakai*, pp. 69-70.
- ⁵⁸ *Ibid.*, pp. 70-71.
- ⁵⁹ "Nihon Gakujutsu Kaigi Kara, Gakkai Kuno no Shukuzu," in *Asahi Shinbun*, morning edition (April 27, 1953), p. 6.
- ⁶⁰ "Genshiryoku Yosan ni Gakkai no Taido Kimaru," in *Asahi Shinbun*, morning edition (March 12, 1954), p. 7.
- ⁶¹ Yoshioka, *Shinpan: Genshiryoku no Shakai*, pp. 74-80.
- ⁶² Shibata, *Sengo Masukomi Kaiyoku*, pp. 66-67 in volume 2; *Yomiuri Shinbunsha 100-nenshi Henshu Iinkai, Yomiuri Shinbun 100 nen-shi*, pp. 648-649.
- ⁶³ Shibata, *Sengo Masukomi Kaiyoku*, pp. 66-67 in volume 2; *Yomiuri Shinbunsha 100-nenshi Henshu Iinkai, Yomiuri Shinbun 100 nen-shi*, pp. 648-649.
- ⁶⁴ Sangiin Honkaigi (House of Councilors Plenary Session), "Genshiryoku Kokusai Kanri narabini Genshi Heiki Kinshi ni kansuru Ketsugi" (Resolution on the International Control on Nuclear Power and the Ban on Nuclear Weapons). Accessed (http://www.sangiin.go.jp/japanese/san60/s60_shiryoku/ketsugi/019-29.html) on August 12, 2012.
- ⁶⁵ Nihon Keizai Shinbunsha, ed. *Nihon Keizai Shinbunsha 110-nenshi* (Tokyo: Nihon Keizai Shinbunsha, 1986).
- ⁶⁶ Zwigenberg, "'The Coming of a Second Sun': The 1956 Atoms for Peace Exhibit in Hiroshima and Japan's Embrace of Nuclear Power."