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**THE NUCLEAR PROLIFERATION INTERNATIONAL HISTORY PROJECT
WORKING PAPER SERIES**

Christian F. Ostermann, Leopoldo Nuti, and Evan Pikulski, Series Editors

THE NUCLEAR PROLIFERATION INTERNATIONAL HISTORY PROJECT

WORKING PAPER SERIES

Christian F. Ostermann, Leopoldo Nuti, and Evan Pikulski
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Bringing Seoul into the Non-Proliferation Regime

The Effect of ROK-Canada Reactor Deals on Korea's Ratification of the NPT

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Key Findings

Pressure by the United States was less decisive in forcing South Korea to ratify the NPT in 1975 than commonly assumed. Records show that a consensus to ratify the treaty was reached within the ROK government by early March 1975—before the US applied meaningful pressure.

Although the US Embassy in Seoul forwarded its suspicions of the ROK's nuclear ambitions during 1974, the inter-agency intelligence assessment concluding that the ROK had launched a nuclear weapons program was completed only in late February 1975. While the White House was still determining its response to the report, the ROK government had already decided to ratify the NPT up to the level of the Prime Minister.

In January 1975, the State Department confirmed that no specific actions had been taken to make the NPT ratification a condition for any US dealings with South Korea.

There is little evidence that the 1975 Congressional resolution calling on the EX-IM bank to defer financing for reactor construction in Korea had an impact on ROK decision-making.

The short time between the introduction of the resolution to the Senate Committee on Foreign Relations on March 7th and the notification of ROK President Park's decision to ratify the NPT by the Korean Ministry of Foreign Affairs on March 8th suggests the events were not directly related.

South Korea joined the NPT to secure the sale of Canadian heavy-water reactors, whose sale had been made contingent on ratification. The ROK government chose to pursue the plutonium route to a bomb in 1972, making the acquisition of heavy-water reactors critical to the entire project.

Evidence from Korean and Canadian archives show that the strengthened safeguards Canada placed on its nuclear reactors after the May 1974 Indian nuclear test played a decisive role in South Korea's decision to ratify the NPT.

South Korea's Foreign Minister first mentioned that Korea might consider ratifying the NPT if it were a precondition for the sale of a CANDU reactor during his visit to Ottawa in November 1974.

On January 20, 1975, Canada announced that they would reconsider the sale of reactors if South Korea refused to ratify the NPT. Three days later, ROK ministers recommended that President Park Chung Hee accept the Canadian ultimatum to secure the sale of two heavy water reactors (CANDU and NRX). Park approved the decision on March 7, 1975.

In December 1975, Canadian Secretary of External Affairs also asserted that South Korea had ratified the NPT upon Canada's suggestion.

The South Korean government did not regard NPT ratification as the end of its military nuclear pursuits. South Korea's program was not formally suspended until December 1976—over one-and-a-half years after the Korean National Assembly ratified the NPT in March 1975.

ROK officials still regarded the import of a NRX reactor to be possible at the time they chose to ratify the NPT under Canadian pressure. However, archival records show that Canadian officials saw any future sale of a NRX reactor to be unlikely.

South Korea's negotiations with France to

Bringing Seoul into the Non-Proliferation Regime

The Effect of ROK-Canada Reactor Deals on Korea's Ratification of the NPT

Se Young Jang¹

Introduction

sought to dispel suspicions that South Korea intentionally delayed ratification while covertly developing nuclear weapons. During general debate at the 1975 NPT Review Conference, the ROK delegation justified its previous position by saying that South Korea had delayed ratification not because of their “desire to keep open nuclear options,” but of “desire to see entire [the] Korean Peninsula brought under [the] NPT system.”⁴ Yet this retrospective justification falls short, as the ROK National Assembly abruptly ratified the NPT in the absence of significant changes to the regional security environment in Northeast Asia. Why did Seoul abandon its reluctant position on the NPT and choose to ratify it in March 1975, rather than some other time?⁵

President Park Chung Hee pursued a nuclear weapons program in the first half of the 1970s in response to weakening security commitments from the United States, and thus explanations of South Korea’s ratification reluctance must take this into account.⁶ Existing literature emphasizes Washington’s role in precipitating Seoul’s ratification as a way to prevent nuclear proliferation on the peninsula.⁷ Some authors specifically claim that American pressure

⁴ Telegram 03406 from US Mission Geneva to State Department, May 10, 1975, US National Archives and Record Administration (NARA), College Park, MD [retrieved from the Access to Archival Databases at <http://aad.archives.gov>, April 27, 2016] (hereafter, US NARA AAD).

“succeeded in persuading France and Canada to join it in pressing for South Korea’s ratification of the NPT as a precondition for the French and Canadian sale of nuclear technology.”⁸ Others assumed that Washington began pressuring Seoul to ratify long before March 1975.⁹

Literature describing South Korea’s path to NPT ratification lacks the support of archival documents. Most explanations draw from neither US nor Korean archives and insufficiently document how decisions in Seoul were made and whether US pressure was felt. Instead, many interpretations assume that Washington’s overall influence on South Korea’s military and diplomatic policies was responsible for Seoul’s decision to ratify the NPT.

This assumption is reinforced by a concurrent event in the United States Congress—some scholars argue that a joint US Congressional resolution passed on March 10, 1975 played a key role in persuading South Korea to ratify the NPT.¹⁰ The resolution called on the Export-Import Bank of the United States (EX-IM Bank) to defer approval of loans for construction of a second US-supplied nuclear reactor in South Korea. This explanation sounds plausible on its face due to the short time between the congressional resolution and South Korea’s ratification of the NPT, which happened only nine days later. However, the short time between these events does not guarantee a causal relationship. In particular, the lack of empirical evidence from South Korean

of Geography and the Vexations of History,” in *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices*, ed. Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss (Washington, D.C.: Brookings Institution, 2004), 262–3; Kang Choi and Joon-sung Park, “South Korea: Fears of Abandonment and Entrapment,” in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*

archives makes it difficult to understand the rationale behind South Korea's decision in early 1975. This working paper shows that it is unclear whether serious US pressure existed before the ROK government's decision to ratify the NPT, or at least that any such pressure was not as decisive as what the existing literature generally leads us to believe. Rather, some archival evidence indicates Washington began pressuring Seoul to curb its nuclear ambitions only when Korea's negotiations with France to purchase a reprocessing facility surfaced during summer 1975, after South Korea had already ratified the NPT.¹¹

New evidence from South Korean archives does reveal that the rationale behind the ROK government's ratification decision was much more complicated than has been previously described. Based on extensive archival research in

NPT ratification a non-negotiable condition for continuing with the CANDU export.” However, Bratt did not exclude that Washington had assisted the Canadians in pressuring the South Koreans to ratify the NPT.¹⁴ Another study by Sung Gul Hong argues that Ottawa pressed Seoul to accept the US demand to ratify the treaty because “Canada was under strong US pressure to get South Korea to ratify the NPT prior to the package sale of the CANDU reactor and the NRX (National Research Experimental) reactor.”¹⁵ His arguments are flawed in two aspects: first, it is not clear whether Canada was under strong US pressure. Available evidence only shows that the two governments shared information about this issue. Second, the package sale of two reactors was not used to persuade South Korea to ratify the NPT. Instead, the Canadian government made it clear that the NRX reactor was unbundled from the CANDU sale following India’s 1974 nuclear test.

their ratification process until the mid-1970s. With its first successful nuclear test in 1960, France was eligible for NWS status but did not join the treaty until 1992. Some countries also delayed ratifying the treaty until they abandoned their military nuclear ambitions. Argentina and Brazil, the well-known historic rivals in South America, pursued covert nuclear weapons programs in the 1970s and 1980s and only acceded to the NPT in 1995 (Argentina) and 1998 (Brazil), much later than other civilian nuclear powers.²⁰

The United States constructed and pushed for this newly established non-proliferation regime together with the Soviet Union.²¹ Yet hesitation in joining the NPT by key civil nuclear powers concerned the two superpowers and cast doubt on the future of the regime. That some potential proliferators up until the 1970s were allies or friends of the United States or the Soviet Union made the situation even more complicated. Among US allies and friends, the United Kingdom, France, and Israel developed nuclear weapons while Australia, Sweden, and Switzerland seriously explored the nuclear option in the early Cold War, but ultimately decided not to pursue weapons.²² Taiwan also launched a nuclear weapons program—the *Hsin Chu Project*—a few years after China's first nuclear test in 1964. A series of US efforts to stop the

²⁰ See T. V. Paul, *Power versus Prudence: Why Nations Forgo Nuclear Weapons* (Quebec City: McGill-Queen's University Press, 2000), 99–112.

²¹ Popp, "Making of the Nuclear Non-Proliferation Regime," 196–9.

²² For the nuclear weapons options and the subsequent reversal decisions of Australia, Sweden, and Switzerland, see Jim Walsh, "Surprise Down Under: The Secret History of Australia's Nuclear Ambitions," *Nonproliferation Review*, 5/1 (1997); Jacques E. C. Hymans, "Isotopes and Identity: Australia and the Nuclear Weapons Option, 1949–1999," *Nonproliferation Review* 5/1 (2000); Waynes Reynolds, *Australia's Bid for the Atomic Bomb* (Melbourne: Melbourne University Press, 2000); Richard Broinowski, *Fact or Fission? The Truth about Australia's Nuclear Ambitions* (Melbourne: Scribe, 2003); Thomas Jonter, *The Key to Nuclear Restraint: The Swedish Plans to Acquire Nuclear Weapons during the Cold War* (London: Palgrave Macmillan, 2016); Paul M. Cole, *Sweden without the Bomb: The Conduct of a Nuclear-Capable Nation without the Nuclear Weapons* (Washington DC: Rand Corporation, 1994); Reto Wollenmann and Andreas Wenger, *Zwischen Atomwaffe und Atomsperrvertrag: die Schweiz auf dem Weg von der nuklearen Option zum Nonproliferationsvertrag (1958–1969)* (Zurich: ETH, Forschungsstelle für Sicherheitspolitik, 2004); Paul, *Power versus Prudence*, 62–98.

Hsin Chu Project finally led Taiwan to terminate it in the late 1980s.²³ In the Cold War era, nuclear pursuits for non-peaceful uses were not monopolized only by a handful of “rogue states” or communist countries—the option was also explored by many US allies and friends including South Korea.

South Korea’s Contradictory Choices

As one of the potential proliferators from the US-led bloc in the 1970s, South Korea is unique in that the Park administration adopted two contradictory choices in 1975: ratifying the NPT while not completely abandoning its nuclear weapons program. Some literature assumes that Seoul cancelled its clandestine nuclear project in 1975 and then ratified the NPT.²⁴ Yet according to a report written in 1978 by the US Central Intelligence Agency (CIA), the Park administration suspended South Korea’s first nuclear weapons program only in December 1976.

ROK-Canada Commercial Nuclear Deals

The history of South Korea's nuclear program is embedded in the context of its trade relationships with foreign nuclear suppliers. In the early and mid-1970s, concerns over the 1973–74 global oil crisis and national security led the ROK government to accelerate both its civil and military nuclear programs. South Korea, a developing country in the 1970s, required imported nuclear technology and equipment to pursue this effort. Thus, securing the technology trade between South Korea and several supplier states was a key objective of the ROK government in setting its nuclear non-proliferation policy.

Although South Korea enhanced the legal and institutional groundwork for its nuclear power industry in the 1950s, it was not until the late 1960s that the Park administration focused on its grand plan for large-scale electricity production through nuclear power.²⁹ From 1971 onward, South Korea started constructing its first nuclear power plant under a contract with the Westinghouse company while negotiating with the United States for a second reactor. Both were light water reactors fueled using low-enriched uranium fuel supplied by the United States.

Unless strictly safeguarded, some nuclear technologies can be relatively easily converted from civilian to military purposes. In particular, heavy water reactors are considered a greater proliferation risk than light water reactors. Heavy water reactors use readily available natural uranium as fuel, bypassing the costly and difficult enrichment step necessary to produce light water reactor fuel, and a significant amount of weapons-usable plutonium can be extracted from

²⁹ South Korea's Atomic Energy Law was enacted in 1956, being followed by the establishment of the Atomic

the irradiated natural uranium fuel by nuclear reprocessing. The Canada Deuterium Uranium (CANDU) heavy water reactor has the added ability to be refueled while in operation. This feature is useful for electricity production, but also makes precise accounting for the plutonium contained in spent fuel far more difficult. These characteristics can contribute to clandestinely producing weapons-usable plutonium.³⁰ In contrast, light water reactors use low-enriched uranium well under the 20 percent threshold seen as a proliferation risk. Furthermore, they are easier to safeguard because the fuel assemblies can be inspected under water and “the complexity of the operation to extract an assembly from the reactor core creates a level of proliferation resistance.”³¹ Thus, it is logical to assume that South Korea would have regarded diversion of plutonium from US-supplied light water reactors fairly difficult.

Under these circumstances, the ROK government became interested in acquiring heavy water reactors and started negotiations with Canada. As the only producer of heavy water reactors in a nuclear market dominated by light water reactors, Canada was eager to attract new customers during the 1960s and 1970s. During this “golden age of the nuclear industry,” over 80 percent of all nuclear power plants were ordered.³²

officials, was working for AECL.³³ Through his arrangements, Gray met a number of high-level South Korean officials involved in nuclear energy affairs. During this visit, he learned that the ROK government was interested

Official negotiations began when Canadian Ambassador to Japan Ross Campbell visited Seoul in August 1973.³⁶ In the early stage of the negotiations, Canada sought to export two types of heavy-water reactors as a

controlled by President Park, blaming it for the delay of the ratification process was hardly a persuasive argument.

Within a month, Canada sent South Korea a first draft of the ROK-Canada Nuclear Cooperation Agreement (NCA), which was a pre-condition for any commercial nuclear contract to be signed between the two countries. This draft comprised of seven articles relating to safeguards on nuclear-related information, material, equipment, and facilities transferred from Canada.⁴⁰ The ROK government—mainly the Ministry of Science and Technology (MOST) and the Ministry of Foreign Affairs (MOFA)—worked to revise the Canadian draft. On February 5, 1974, the ROK Atomic Energy Commission (AEC) accepted the revised draft as the final version to be negotiated with Canada.⁴¹ As South Korea's top decision-making organization on atomic energy-related issues, the AEC reported directly to the President. Its approval indicates that President Park supported the nuclear reactor deal with Canada.

Finalizing the NCA draft occupied an additional two months.⁴² By April 1974, the negotiations produced a revised version of the ROK-Canada NCA which was not significantly different from the original one.⁴³ It is notable that Ottawa appeared to be more eager to go forward than Seoul in this early phase of the negotiation—when the MOFA explained the causes

⁴⁰ Letter from Campbell to Choi, August 27, 1973, 4/J-06-0102/741.61CN, ROK Diplomatic Archives; Memorandum attached by the Agreement between the Government of Canada and the Government of the Republic of Korea for Cooperation in the Peaceful Uses of Atomic Energy from Canadian Embassy Seoul to Economic Research Division (MOFA), December 12, 1973, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴¹ Memorandum from MOST to MOFA, March 30, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴² Memorandum from Bureau of International Economy (MOFA) to Bureau of International Relations (MOFA), April 18, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴³ Memorandum from MOST to MOFA, December 19, 1973; Memorandum from Bureau of International Relations (MOFA) to Bureau of International Economy (MOFA), January 7, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

of delay, the Canadian negotiators requested them to conclude the NCA as promptly as possible.⁴⁴

By early May 1974, the ROK-Canada negotiations were almost complete. When the MOFA submitted the revised draft of the NCA to the Canadian Embassy on May 7, the latter estimated it would take roughly one week to receive a reply from Ottawa.⁴⁵ At this stage, both parties appeared to be waiting only for signatures. On May 18, however, the situation suddenly changed. India's unexpected test of a nuclear device using plutonium produced by a Canadian-origin heavy-water reactor complicated the entire nuclear deal between South Korea and Canada.

Progress on the reactor deal began to unravel in the weeks following India's test, though not immediately. On May 23, the Canadian Embassy in Seoul informed the MOFA that Ottawa agreed on the revised NCA draft and wanted to sign it at the earliest possible.⁴⁶ As late as May 29, both parties still discussed and agreed to allow the ROK-Canada nuclear cooperation agreement to come into force.⁴⁷ This agreement even came after a visit on May 27 by Canadian Ambassador John Alexander Stiles to the Korean Vice Minister of Foreign Affairs. In his visit, Stiles explained Canada's concern about the Indian test as well as the official position of the Canadian government. Disturbed by India's detonation of a nuclear device, the Canadian government suspended all nuclear assistance to India.⁴⁸ Despite the embarrassment of its

⁴⁴ Transcript of Telephone Conversation, Geon-Yi Seo, Desk Officer in Division of Economic Investigation (MOFA) with D. Gordon Longmuir, First Secretary, Canadian Embassy Seoul, April 23, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴⁵ Summary of Meeting, Kyung-chul Kim, Director for International Investigation (MOFA) and Seo with Longmuir, May 7, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴⁶ Transcript of Telephone Conversation, Seo with Longmuir, May 23, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴⁷ Transcript of Telephone Conversation, Seo with Longmuir, May 29, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁴⁸ Aide-mémoire from Canadian Embassy Seoul to MOFA, "Text of a Statement by the Secretary of State for External Affairs of Canada regarding the Explosion by India of a Nuclear Device," May 22, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

unintended involvement in India's nuclear weapons program, it appeared that the Canadian government still sought to conclude the nuclear cooperation agreement with Korea as originally planned, at least until the end of May 1974.

Yet Ottawa soon revised its position. After confirming that Canadian-origin technology had enabled India's nuclear weapons program, the Canadian government took action to prevent similar occurrences in the future. On June 10, Ambassador Stiles presented the MOFA with new, strict amendments to the NCA reflecting Canadian concerns about the possibility that reprocessed materials could be used in any future nuclear test, as India had just done. The amendment was intended to make it legally certain that South Korea could not use plutonium reprocessed from spent nuclear fuel produced in Canadian heavy water reactors to develop nuclear weapons.⁴⁹ Furthermore, Stiles mentioned informally that it would become difficult for Canada to conclude the NCA and to grant South Korea loans for nuclear reactors—for an estimated amount of 570 million Canadian dollars—if Korea did not accept the amendments.

safeguards of the International Atomic Energy Agency (IAEA). They also suggested that facilities and equipment for research programs be excluded from the NCA, at least, if their government had no other option but to agree to the amendments.⁵² Facing opposition from the KAERI, the MOST changed its position as well, and requested that the MOFA negotiate with Canada based on the original version of the NCA which predated the Indian test.⁵³

Despite the disagreement, the MOFA continued to insist on accepting Canadian amendments as is—they regarded the acceptance of the amendments as being inevitable in order to conclude the NCA, secure the loan, and import the CANDU reactor as early as possible.⁵⁴ To ease the tension with the KAERI on the amendments, the MOFA tried to alleviate the KAERI's concern about the reprocessing of nuclear materials, which would be restricted under the NCA. In what would turn out to be wishful thinking, they argued that reprocessing for peaceful purposes would not be impossible, pursuant to Article IV (2b), if both parties agreed on it in writing at a later point.⁵⁵

By the beginning of July, the MOST and the KAERI had come to accept the stricter Canadian amendments to the NCA. This came after the MOFA argued that Canada was only trying to clarify the concepts already contained in the previous draft of the NCA and was also demanding that other countries accept the same new amendments.⁵⁶ The MOFA was working to

⁵² Memorandum from KAERI to MOST, June 24, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives. The KAERI, affiliated with the Office of Atomic Energy which was under direction of the President, was a government body in charge of the practical work needed for the nuclear deal with Canada. This included constructing a CANDU reactor.

⁵³ Memorandum from MOST to MOFA, June 25, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁵⁴ Report from Bureau of International Economy (MOFA) to Foreign Minister, June 27, and July 6, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

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complete the negotiation by the end of July.⁵⁷ Despite articles in the *New York Times* and *Washington Post* on July 5 and 8 which characterized South Korea as a potential nuclear proliferator, prospects for the NCA appeared to be favorable as the ROK Cabinet immediately approved the Agreement on July 19.⁵⁸

By August, however, the concerns about South Korean intentions being raised in the Western media contributed to a negotiating stalemate. The Canadian media started to criticize their government's nuclear deal with President Park who, they asserted, wanted to develop nuclear weapons to deter a North Korean military attack. In addition, they raised the issue of South Korea's non-ratification of the NPT.⁵⁹ This growing suspicion from Canada was further exacerbated by the ambiguous remarks of South Korea's Defense Minister at the National Assembly that his ministry was developing "new weapons." The MOFA later explained to Canada that the "new weapons" meant conventional ones which South Korea had been considering to develop or import.⁶⁰ While denying any allegation related to its nuclear weapons program, South Korea remained eager to conclude the NCA.

Director for Planning (MOST), July 11, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives. Why MOST and KAERI changed their position at the time is still unclear. A phone conversation between Kim and Kyung on July 1 gave the impression that Kyung was pretending that MOST had not tried to oppose the MOFA before. One hypothesis is that a higher authority might have intervened to resolve this disagreement between MOST and MOFA.

⁵⁷ Summary of Meeting, June 10, 1974; Summary of Meeting, July 11, 1974.

⁵⁸ Report, "The ROK-Canada NCA Negotiation," Bureau of International Economy (MOFA), July 13, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives; Agenda, "The 55TH Cabinet Meeting: the ROK-Canada NCA Negotiation," Minister (MOFA) to Chairperson of the Cabinet Meeting (i.e. President), July 18, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives; Memorandum from Division of Treaty (MOFA) to President, July 19, 1974, 4/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁵⁹ *Ottawa Journal*

By contrast, the Canadian government became more careful with the increasingly negative domestic opinion towards exporting nuclear technologies, and refused to confirm when the Cabinet would deliberate on the ROK-Canada NCA. On August 3, the Canadian Embassy predicted that the domestic process for approving the NCA in Ottawa would be completed by August 8. However, Canadian officials changed their positions on August 7 and began saying that they could not receive the cabinet's approval because no regular meetings could be convened during the holiday season.⁶¹ During this period, the ROK government regarded the stalemate as a result of the hostile domestic circumstances in Canada.⁶²

Canada's suspicions of South Korea's nuclear energy program culminated in the fall of 1974. According to a nuclear policy review submitted to the cabinet on November 13, Canada was concerned about the possibility that South Korea's current plans for developing nuclear infrastructure could be redirected to support a military nuclear program. Acknowledging the risk that a Canadian nuclear reactor could be repurposed for military uses, the review further went on to recommend that Canada consider terminating the nuclear reactor negotiations with South Korea.

[...] The ROK's acquisition of the technology, facilities and fuel for a nuclear weapons programme would be materially assisted through the provision of Canadian nuclear reactors to the ROK. Elements within the ROK government

the infrastructure required for a nuclear weapons programme in order to obtain an early nuclear weapons option. [...] The risks of a Canadian heavy water reactor and associated technology contributing to nuclear weapons proliferation is sufficiently great that *consideration should be given to instructing AECL to terminate its negotiations with Korea* (despite the political embarrassment this may cause in terms of Canada's relations with Korea. [...])⁶³

ROK Minister of Foreign Affairs Dong Jo Kim made an official visit to Canada precisely at this time of growing suspicions. In his November 15, 1974, letter to External Affairs, Allan MacEachen, Kim stressed that South Korea was under the US nuclear umbrella and was likely to acquire nuclear technology and equipment for military purposes. Noting that "Canada had been particularly concerned about the possibility of the ROK's acquisition of nuclear technology," MacEachen explained that Canada sought more stringent safeguards to exclude "any possibility of the use of Canadian equipment for an explosives programme." In response, Kim assured MacEachen that South Korea did not have any military nuclear ambition and would consider ratifying the NPT "if it were a pre-condition for the sale of a CANDU."⁶⁴ The Canadian government recorded what Minister Kim had told MacEachen as follows:

The Canadian Government had requested some changes in the draft safeguards agreements, and the ROK had agreed without hesitation. The Minister said he knew the Canadian Government was also worried about the ROK's ratification of the NPT. No one from the ROK's area had ratified. However, if it were a pre-condition for the sale of a CANDU, the Minister said he "might" ask his government to ratify. South Korea had no intention of developing nuclear weapons. It had no time or energy to spare for such a purpose.⁶⁵

This was the first time a top-level Korean official expressed South Korea's intention to link NPT ratification to the CANDU reactor sale. What followed was an effort to induce South Korea to

⁶³ Memorandum to Cabinet, November 13, 1974, File 646-74, Box 15, Vol.6451, RG2, Library and Archives Canada (emphasis added by author).

⁶⁴ Summary of Discussion between Minister of Foreign Affairs of the Republic of Korea, Mr. Dong Jo Kim, and

join the NPT with a combination of promises and threats. First, when discussing the sale of a Canadian nuclear reactor to Korea on December 12, 1974, the Canadian cabinet members were aware of and concerned about Korea's aspirations to develop nuclear weapons in the future. However, they also took into account the possibility of losing a nuclear reactor deal with Korea to the United States if they pushed Seoul too hard. In addition, some members of the cabinet raised the issue of the NPT's incomplete nature in assuring the NNWS's full compliance with the treaty's non-proliferation obligations. As a result, the cabinet only confirmed its original position to sell a nuclear power plant to Korea after the ROK-Canada NCA would be signed.⁶⁶

A week later, though, the Canadian cabinet, which regarded the proposed sale of a nuclear power plant to Seoul as "too late to reverse," revised its previous decision by making Korea's ratification of the NPT a pre-condition for the deal. The Canadians agreed that the sale of a nuclear power plant to South Korea should

nuclear technology, facilities and material.”⁶⁸ Having faced all these changes from Ottawa on the nuclear deal, Seoul also grew concerned about the possibility that the Canadian government would also demand additional stringent safeguards measures from them.⁶⁹

Canada’s Ultimatum and South Korea’s Decision

Following the cabinet decision, Canada sent South Korea a letter in the name of Secretary MacEachen on January 6, 1975. While informing South Korea of Canada’s decision to supply a CANDU reactor, MacEachen inquired once more about South Korea’s position on the NPT.⁷⁰ Two weeks later, Ambassador Stiles visited Minister Kim to follow-up on recent Canadian actions by submitting a new amendment to the NCA that indicated a somewhat ambiguous, but definitely tougher stance. During the meeting, Stiles made it clear that while the Cabinet decision had not touched upon the issue of supplying an NRX research reactor to South Korea, they were “willing to discuss” this offer once South Korea ratified the treaty. More ominously, for South Korea, he also conveyed a firm position from Ottawa that they would *reconsider the sale of the CANDU if South Korea refused to ratify the NPT*.⁷¹

⁶⁸ Statement by the Hon. Donald S. MacDonald Minister of Energy, Mines and Resources, December 20, 1974, attached to Telegram CNW-1243 from ROK Embassy Ottawa to MOFA, date unknown, 5/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁶⁹ Telegram CNW-1243 from ROK Embassy Ottawa to MOFA, date unknown; Memorandum from Bureau of International Economy (MOFA) to Bureau of International Relations (MOFA), January 6, 1975, 5/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁷⁰ Briefing for Interdepartmental Meeting, Bureau of International Economy (MOFA), January 23, 1975, 5/J-06-0102/741.61CN, ROK Diplomatic Archives.

⁷¹ Summary of Meeting, Minister Kim with Ambassador Stiles, January 20, 1975, 5/J-06-0102/741.61CN, ROK Diplomatic Archives (emphasis added by author). The main points of difference in the new draft NCA proposed by Canada were as follows: “1) total reorganization and simplification of terms of agreement, 2) increased stress on safeguards and emphasis on development and application of atomic energy for peaceful purposes, 3) increased control by supplying country over material or nuclear material produced, reprocessed, enriched, fabricated, converted or stored in Korea, including future generations, 4) provision of sanctions should nuclear material be seen to be furthering a non-peaceful purpose and 5) signature and ratification required rather than simpler exchange of notes; exchange of instruments of ratification.”

Canada made it clear in January 1975 that the sale of the NRX reactor was not included in the Canadian cabinet's December 1974 decision to provide a CANDU reactor to South Korea.⁷² Ambassador Stiles simply mentioned that Ottawa would be willing to discuss the NRX reactor sale with Seoul only after South Korea ratified the treaty.⁷³ However this was likely an empty promise, as the Canadian government would not have been in a position to formally make such a conditional offer for a less proliferation-resistant NRX reactor to South Korea in early 1975. According to Minister MacDonald's December 1974 speech, Canada was determined to "apply the maximum safeguards or restraints attainable to inhibit importing states from using nuclear supplies to further the production of nuclear explosive devices."⁷⁴ Against this backdrop, exporting another NRX reactor to a potential proliferator would have been seen as a lack of will in the Canadian government to keep its promise.

Presented with an increasingly stark offer by Canada, South Korea had little choice but to accept Canada's ultimatum—ratifying the NPT became necessary for Seoul to import Canadian heavy-water reactors at this critical stage of negotiations. With the military nuclear program still underway, access to plutonium derived from spent nuclear fuel irradiated in CANDU/NRX reactors was a necessity.⁷⁵ Failing to import the Canadian reactors would also derail Korea's parallel reprocessing deal with France.

⁷² Underlining US pressure on South Korea to ratify the NPT, in contrast, Hong argues that "as a package deal,

For the two months following Minister Kim's visit to Ottawa, the MOFA had been internally discussing ratification with other relevant ministries.⁷⁶ Yet when Canada eventually pushed South Korea again in January 1975, it appeared that South Korea could not finalize the negotiations unless they made a decision one way or the other: either accepting Canada's demand or abandoning the whole project of importing CANDU and NRX reactors. On January 20, immediately after the Canadian Ambassador's visit, a telegram was sent to the Korean Ambassador to Canada to inform him of the new amendment. The message noted that the government was considering requesting the National Assembly to ratify the treaty while simultaneously asking him to keep this fact secret for the time being.⁷⁷

On January 23, an inter-ministerial meeting of high-level officials was held to discuss this Canadian demand under the chairmanship of the Minister of Trade and Industry.⁷⁸ Support for the deal was not unanimous—Ministry of Trade and Industry was doubtful of the economic benefits of taking loans from Canada to build nuclear reactors. On the other side, the Assistant Minister of Economy from the MOFA asserted that it was necessary to pursue this policy as planned since otherwise it could negatively affect the prospects of South Korea's cooperation with Canada. He argued that other countries might also become more suspicious about South Korea's nuclear energy policy. His opinion reflected the broader views of the MOFA, which deemed the ratification of the NPT inevitable and even desirable for various reasons related to

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the security, diplomatic, and economic environment of South Korea.⁷⁹ Finally, the participants in the meeting agreed to recommend President Park to push Canada for two heavy-water reactors (CANDU and NRX) in return for accepting Canada's major demand: ratifying the NPT. The three recommendations to the President resulting from the meeting were:

1. Two heavy-water reactors should be constructed with consideration given to the economic benefits, effective training, and employment of engineers.
2. If it is impossible to import two heavy-water reactors from Canada, the purchase of one reactor should be temporarily suspended. Instead, the government should call for international bids on nuclear reactors of all types at the earliest possible time. Heavy-water reactors should not be included in these bids since the market is dominated by only one producer.
3. Necessary measures should be taken to ratify the NPT and to conclude the NCA with Canada regardless of carrying forward the construction project of heavy-water reactors.⁸⁰

The second recommendation indicates that South Korea was still eager to import an NRX reactor together with a CANDU. In contrast, Canada was becoming less willing to sell NRX reactors following India's nuclear test using plutonium extracted from the Canadian CIRUS (NRX) reactor. Moreover, the idea of calling for international bids on nuclear reactors was not necessarily realistic considering the state of the nuclear power industry in the 1970s. At that time, there existed only a limited number of suppliers capable of exporting their technology and equipment and reactor sales were heavily influenced by secret, bilateral negotiations between governments or between governments and companies.

The recommendation to exclude heavy-water reactors in the bids was not very credible

by leaking this position in advance if Canada remained steadfast in its cautious policy not to provide NRX reactors to potential proliferators. However, if this recommendation had been implemented and then Canada had subsequently abandoned its negotiations with Seoul, it would have ironically led South Korea to be more dependent on the US-offered light water reactors. Nonetheless, it is notable that all top-level Korean officials who attended the inter-ministerial meeting on January 23 managed to agree on the necessity of ratifying the NPT in order to continue the nuclear negotiations with Canada.

These three recommendations were approved by Prime Minister Jong-pil Kim within a month, and then submitted to President Park for his consideration.⁸¹ On March 7, Park finally approved “submitting [the ratification of the NPT to the] special session of [the] National Assembly convening [on] March [11],” and on the following day, the ROK Vice Foreign Minister Lho informed US Ambassador Sneider of Park’s decision, detailing the ratification process at the National Assembly.⁸² Promulgated in 1972, the *Yushin* Constitution enabled President Park to wield absolute power, ruling “without constraints in the absence of legislative and judicial checks-and-balances” and with a de facto life-long presidency bestowed on him.⁸³ He directly appointed a third of congressmen, and many others were also from the ruling

19. The instrument of ratification was then deposited to the United States, one of the three depository states, on April 23, 1975.

Washington's Limited Role

US archival sources acknowledge that US pressure was not a very critical factor in South Korea's decision on the NPT. Some literature argues that the US government persuaded other nuclear suppliers such as Canada and France to press South Korea to ratify the treaty.⁸⁴ However, the Canadian effort was not motivated or led by US pressure. Rather, domestic and international pressure to strengthen Canada's nuclear safeguards following India's 1974 nuclear test influenced the Canadian government's decision. Canadian Secretary of State MacEachen held his own clear view that South Korea ratified the NPT under Canadian pressure by stating "[t]he Republic of Korea, *certainly at our suggestion or at our urging*, undertook to ratify the Nuclear Nonproliferation Treaty" at the Canadian House of Commons in December 1975.⁸⁵

The Canadian government was not an intermediary pushing South Korea on behalf of the United States, but it did share relevant information with its neighbor. For instance, Canadian Ambassador Stiles informed US Ambassador Richard Sneider on November 4, 1974 that negotiations on the reactor sale with Seoul were nearly finished and awaited only final approval by the Canadian cabinet. Stiles also commented that the interest of Korean high-level officials in acquiring heavy-water reactors was "clearly evident" while notifying Sneider of ROK Foreign Minister's planned visit to Ottawa.⁸⁶ In December 1974, Stiles followed up with Sneider on Minister Kim's November 15 statement in Ottawa.⁸⁷ The United States was obviously aware that

⁸⁴ Hong, "The Search for Deterrence," 499.

⁸⁵ House of Commons, "Minutes of Proceedings and Evidence of the Standing Committee on External Affairs and National Defence," Issue 32, December 2, 1975, Library and Archives Canada (emphasis added by author).

⁸⁶ Telegram 7328 from US Embassy Seoul to State Department, November 4, 1974, US NARA AAD.

⁸⁷ Telegram 08516 from US Embassy Seoul to State Department, December 23, 1974, US NARA AAD.

government made a decision to ratify the NPT adding the significant effect of “Canadian pressure in connection with CANDU reactor sale.” Longmuir mentioned that he had received this information from a ROK official “on a confidential basis that morning.”⁹⁰

Korea” while assessing “that South Korea could develop limited nuclear weapons and missile capability within ten years.” The US Embassy in Seoul, however, believed that South Korea’s nuclear capability could be more advanced than what Washington had estimated and argued that South Korea would “be able to develop nuclear weapons in less than ten years in light of technical skills.”⁹³ There still exists a possibility that Ambassador Sneider met and pressed President Park immediately after he received this instruction from Kissinger, but there is no evidence of any meeting between them or its impact on Park’s decision.

Furthermore, the fact that President Park approved ratification of the NPT on March 7 contradicts existing arguments that the March 10 joint Congressional resolution—which called on the EX-IM Bank to defer its approval of loans for constructing a second US-supplied nuclear reactor—played a key role in persuading South Korea to ratify the NPT. Arguments emphasizing the influence of the joint Congressional resolution cannot convincingly demonstrate that the US government used this joint resolution as a way to press Seoul to ratify the NPT. First, this argument has a factual flaw. Some scholars reiterated that the resolution passed on March 10, 1975.⁹⁴ In fact, a Senate resolution was not passed, but only introduced on March 7, 1975, while a House resolution was introduced three days later.⁹⁵ Introducing resolutions to Congressional committees does not carry the same weight as passing them.

⁹³ Kim, “Pursuits of Nuclear Weapons in South Korea,” 59, 77. Kim’s explanations are based on two telegrams apparently only available on the form of microfilm at NARA. See Telegram 048673 from State Department to US Embassy Seoul, “ROK Plans to Develop Nuclear Weapons and Missiles,” March 4, 1975, NFL MR Case No. 94-146, #49, NARA; Telegram (number unknown) from US Embassy Seoul to State Department, “ROK Plans to Develop Nuclear Weapons and Missiles,” March 12, 1975, NFL MR Case No. 94-146, #28, NARA. The March 4 telegram was approved by the National Security Council on February 28, 1975, which means that US position on pressing South Korea to ratify the NPT had been almost decided in late February. See Memorandum from Smyser and Elliot to Kissinger, February 28, 1975, Ford Presidential Library.

⁹⁴ See footnote #10.

⁹⁵ S.J.RES.51, 94th Congress 1st Session, introduced by Congressman Adlai E. Stevenson on March 7, 1975 and then referred to the Senate Committee on Banking, Housing and Urban Affairs, US Library of Congress; H.J.RES.298, 94th Congress 1st Session, introduced by Congressman Thomas N. Rees on March 10, 1975 and then referred to the House Committee on Banking, Currency and Housing, US Library of Congress.

The order of these events is also important: the MOFA informed the US Embassy in Seoul of President Park's decision to ratify the NPT on the morning of March 8 (Korean Time). Even though the resolution was introduced to the Senate on March 7 (US Eastern Time), the tight gap in time between the introduction of the resolution and the ROK's notification, as well as the time difference between Seoul and Washington DC (Seoul is fourteen hours ahead) make it hard to argue that Park's decision was in reaction to Congressional action in the US Senate.⁹⁶

Some could argue that Park's decision was spurred by the move of the US Congress toward more cautious positions on US civilian nuclear trade with South Korea. Yet shifting opinions in Congress does not equate to overt economic pressure from Washington to ratify the NPT. As explained, the ROK government reached consensus on NPT ratification up to the level of the Prime Minister during February 1975, regardless of any US Congressional pressure.

In fact, when Lho met Sneider on March 8, they agreed to inform the EX-IM Bank and the Senate Banking Committee of the ROK government's plan to ratify the treaty "in the very near future."⁹⁷ This agreement was a response to the March 7 telegram from the State Department regarding the EX-IM Bank's obligation to notify the Congress of its approval of loans to Kori-II nuclear plant. During preparation, the EX-IM Bank received a number of questions from the Senate Banking Committee. Among those questions, two questions were whether South Korea had nuclear fuel production or reprocessing capability and whether the fact that South Korea had not yet ratified the NPT would affect the bank's decision. The telegram noted that "EXIM approval of loan [did] not depend on NPT ratification," but "[i]t would be highly desirable if EXIM were able to reply to [the] Committee that Koreans ha[d] stated their

⁹⁶ Telegram 01529 from US Embassy Seoul to State Department, March 8, 1975, US NARA AAD.

⁹⁷ Telegram 1529 from U.S. Embassy Seoul to State Department, March 8, 1975, AAD-NARA.

intention to ratify the NPT in [the] near future.”⁹⁸ If the State Department had used the EX-IM loan as an economic stick to push for Korea’s NPT ratification before March 1975, it would have been unnecessary to send such a telegram at

the NPT. Canada's "take it or leave it" offer, presented in January 1975, certainly influenced South Korea's decision to ratify the NPT.

The timing of ratification was clearly connected to South Korea's interest in securing nuclear cooperation with Canada. However, the ROK-Canada NCA was signed almost a year later, on January 26, 1976, rather than directly after Seoul ratified the NPT in March 1975. This delay stemmed principally from US and Canadian concerns about South Korea's continuing efforts to acquire reprocessing technology from France in 1975. These concerns further impeded progress in the ROK-Canada nuclear sale for about a year, but were finally resolved by South Korea's cancellation of its contract with France under strong pressure from the United States and Canada.¹⁰⁸

The ROK-Canada nuclear cooperation agreement signed in 1976 was "the most stringent of all safeguards agreements to that time, containing several important conditions" including provisions for full-scope safeguards. Ottawa succeeded in ensuring that "all nuclear explosive devices, whether intended for peaceful uses or not, were strictly prohibited" and in requiring "prior consent for retransfers of all nuclear equipment, material, facilities, fuel, or technology." In addition, Canada's prior consent for the reprocessing of all generations of fuel was required by the agreement. This clause was added to prohibit any future attempt to extract plutonium from spent fuel produced in Canadian-origin reactors.¹⁰⁹ Having learned from its frustrating

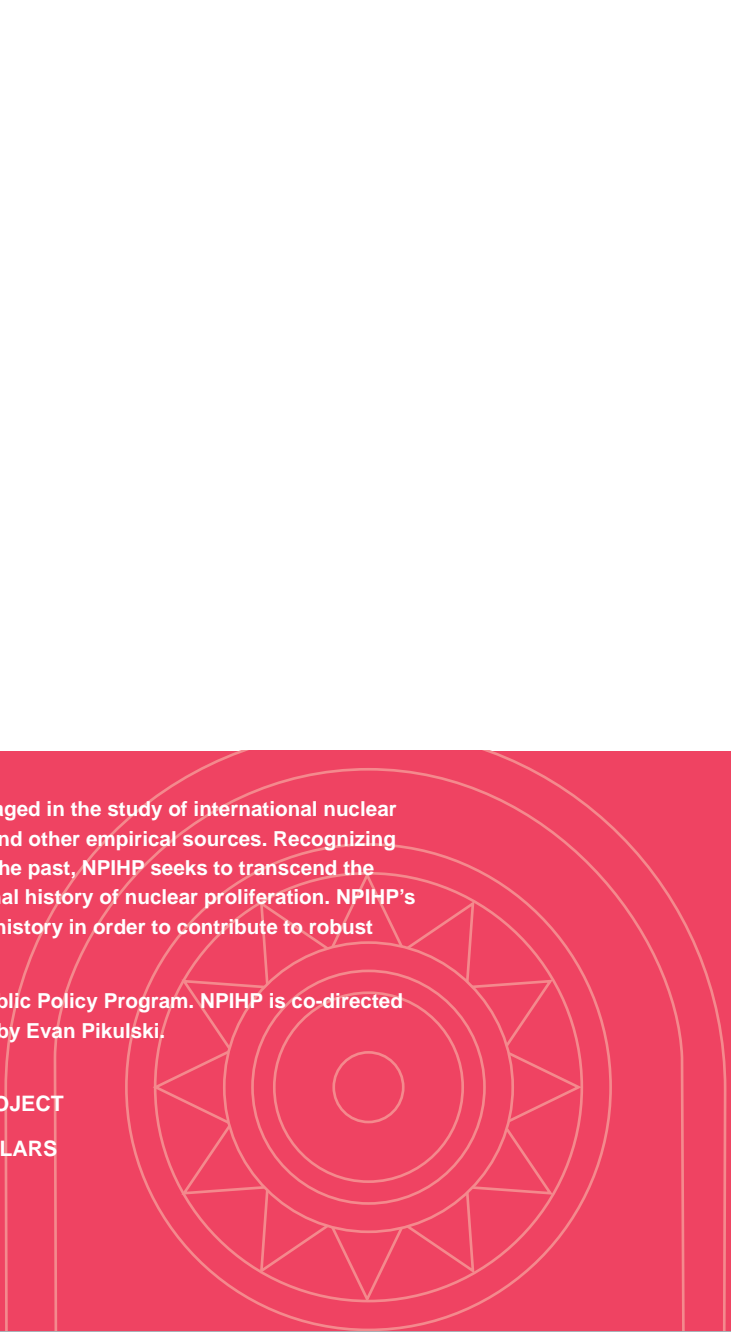

¹⁰⁸ The ROK-Canada negotiations on CANDU became closely interlinked with the ROK-France negotiations on nuclear reprocessing during the year of 1975. Focusing on the direct causes of South Korea's NPT ratification, however, this article does not intend to look into Korea's failed attempt to acquire French reprocessing technology. The US and Canadian pressure on the Park administration's negotiations with Paris will be an interesting research topic for the future.

¹⁰⁹ Bratt, *The Politics of CANDU Exports*, 130-1.

experience with India's unsafeguarded CIRUS reactor, Canada finally demonstrated its serious concern about nuclear proliferation and its ability to impose stronger safeguards on customers.¹¹⁰

This article demonstrated that arguments crediting US pressure for Seoul's decision to ratify the NPT are unsubstantiated, particularly those that credit Washington's unilateral leverage towards Seoul through its asymmetric alliance relationship. Rather than being completely dependent on the US government's instructions or guidance, the ROK government had more space to steer its position in the mid-1970s than has been originally described. This semi-autonomy for Korea was carved out within a favorable environment for nuclear customers generated by heightened competition in the nuclear market, as well as through the Nixon

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