

A Study on Introduction of Nuclear Power Plants in India and the Nuclear Non-Proliferation Conditions

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1. Introduction

Nuclear Suppliers Group (NSG) which was formed to build nuclear export control has been accepting the nuclear cooperation for the member nation of the international nuclear non-proliferation regime. Korea exported nuclear power plants to United Arab Emirates in 2009 and research and training reactor to Jordan in 2010 based on the forcible non-proliferation regime as a member nation of NSG, so it is strengthening its position in the atomic energy industry. In addition, Korea concluded an agreement with India which is planning the construction of 25-based or more nuclear power plants for the next 20 years in last July, 25, so it will enter the atomic energy market in India [1]. But India has been accepted the exceptionally civilian nuclear cooperation as a de facto Nuclear Weapon State (NWS) and non-member state of NPT, so concerns about nuclear proliferation has been raised [2]. This study aims to introduce the allowance of exceptions background in India, to analyze its effect on the non-proliferation regime and to find nuclear non-proliferation conditions.

2. Background

In order to use atomic energy peacefully and to move the nuclear materials internationally in the civilian level, it is essential to conclude the nuclear cooperation agreement based on the stipulated provisions by NPT and IAEA. The import-export of the nuclear cooperation related materials will be prohibited according to international law without an atomic energy agreement [3].

Until recently, India does not follow the safeguards agreement of IAEA as the non-member state of NPT, so the international nuclear cooperation & deal have been prohibited. But India received special exception action for participation to the international atomic energy market without subscription of NPT from NSG in 2008. Thereafter India has concluded civil nuclear cooperation agreements for the introduction of nuclear power plants.

In the text, it will show the background of export control to India and introduction of the nuclear power plants.

2.1 Export Control to India

India started to make efforts to reinforce position in 1969 as NWS. At the time when the Cold War was facing last-minute, United States, Britain, France, the Soviet

Union, China were going to increase significantly the power of nuclear weapons, and NPT was concluded in 1968, so it controlled the expansion of the nuclear weapons countries. India refused to sign the treaty for the reason that only the countries obtaining nuclear weapons can be recognized as NWS by NPT is unfair. After that, it refused to accept required IAEA safeguards for non-NWSs, so it was not placed under oversight for prevention of private nuclear material. Instead, India continued to develop nuclear weapons silently so conducted the first nuclear test in 1974. In response, the international societies decided NSG to impose sanctions on India in relation of alliance with the Soviet Union so it prohibited India for participation of the nuclear cooperation & transaction.

2.2 Introduction of Nuclear Power Plants in India

Executive of President George W. Bush promoted the nuclear cooperation with India for civilian atomic energy development export as the diplomatic tactics for containment of China to meet demand of atomic energy industry. Therefore, India found the method to be 6th NWS for developing nuclear weapons even as non-member state of NPT. U.S. and India concluded the atomic energy agreement in 2008 officially and informed the fact that India received a special exemption to the provisions NSG and IAEA to the international society [4]. The civilian atomic energy facilities in India have belonged safeguards of IAEA for the agreement but the military facilities were exempt from inspections. Thus, India concluded the atomic energy agreement with United States, France, Russia, Canada, Mongol, Kazakhstan, Argentina, Namibia, and Korea became 9th in this time.

3. Results

3.1 Effects on the Non-Proliferation Regime

The agreement about admitting exception to accept comprehensive safeguards of IAEA and NPT join conditions as requirements of NSG guidelines for only India in 2008 has concerning to weaken the international non-proliferation regime [5]. In other words, India can use the atomic energy and continue developing nuclear weapons by helping of international society. Therefore, the export of nuclear power plants to India from nine countries including Korea can be the starting point to weaken the non-proliferation regime which was main-

tained over 40 years internationally. In addition, if the exception to India is applied to other non-member states of NPT, the efforts to prevent nuclear proliferation will come to nothing.

3.2 Conditions for Strengthening the Non-Proliferation Regime

In order to overcome non-proliferation risk due to exemptions to India, 14 conditions for non-proliferation are presented. Moreover, the conditions are necessary to prevent the nuclear proliferation due to introduction of nuclear power plants in non-member states of NPT as follows [6].

1. Undertake to comply with the requirements of Articles I, III.2 and VI of the NPT
2. Have in force a Voluntary Offer Agreement with the IAEA
3. Have ratified an Additional Protocol to its safeguards agreement
4. Not be in material breach of an IAEA safeguards agreement
5. Commit not to export or transfer items specified in INFCIRC/254/ Parts 1 and 2 to a NPT non-nuclear-weapon states
6. Have in place legal measures to ensure the effective and uninterrupted implementation of the NSG Guidelines
7. Commit to share information on "catch all" denials with the IAEA and the members of the NSG
8. Have signed and ratified the Comprehensive Test Ban Treaty (CTBT)
9. Commit to adhere to a unilateral moratorium on nuclear explosion tests
10. Fully implement all UN Security Council resolutions adopted under Chapter VII of the UN Charter that relate to nuclear proliferation or terrorism
11. Adhere to the Missile Technology Control Regime (MTCR)
12. Have ratified the Convention on the Physical Protection of Nuclear Material (CPPNM)
13. Be party to the International Convention for the Suppression of Acts of Nuclear Terrorism
14. Commit to implement in Step 3 of the 13 Steps for a formal treaty banning the production of fissile material for nuclear weapons

The proposed 14 conditions can remove the discrimination due to allowance of exceptions to India. In addition, these could induce the introduction of responsible non-proliferation policy to India. Consequentially, it has estimated to solidify international non-proliferation regime and to rebuild the trust of NSG supporting NPT.

Therefore, we should regard 14 conditions above for atomic energy agreements with non-member states of NPT and present condition for export nuclear power plants to them as the international non-proliferation leading country.

4. Conclusions

Recently, India is emerging as major atomic market in the global nuclear industry. Nuclear suppliers including Korea have been making effort to entry to the Indian market. The export of nuclear power plants to non-member states of NPT without considering non-proliferation regime could increase the proliferation risk.

In order to reinforce the non-proliferation regime, we should consider 14 conditions for the nuclear proliferation prevention on nuclear exports.

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