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Research Article

Nuclear Power Under the Prophetic Legal Paradigm

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Abstract.
This paper aimed to discuss nuclear power under the prophetic legal paradigm. Discussions of nuclear power frequently concentrate solely on its use as a weapon. There are many advantages to nuclear power. To fully utilize its benefits, and prevent any negative uses, a solid and transparent legal framework is required. However, a simply written law may be insufficient because it is conceivable for the law to fall short of the ideal to which it aspires. As a result, both at the international and national levels of the government in Indonesia, it is vital to include religious principles in the law. The prophetic legal paradigm is thought to be the most suitable framework for legal studies that relate to religious beliefs. This analysis demonstrated that the Indonesian nuclear law framework must be updated. It is crucial to keep in mind that the state cannot merely create rules that have no intrinsic purpose - ultimately offering phony security and justice. Laws must consider principles that serve interests of the humanity, particularly in Indonesia. Transcendence, liberty, and humanization are three values that can be combined. This paradigm will lead to the establishment of nuclear law with prophetic dimensions, bringing about real security and justice.

Keywords: Nuclear Power, Nuclear Law, Prophetic Law

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1. Introduction

It is not commonplace for discussions on nuclear power plants to violate rules limiting their use because they are frequently exclusively seen from the standpoint of their use for weapons. The Nuclear Weapons Non-Proliferation Treaty, which established a legal divide between ”nuclear weapons states” and ”non-nuclear weapons states,” managed to exist despite being an ongoing struggle.[1] There are ongoing discussions about how to stop using nuclear weapons as weapons in many different places of the world. Delegitimizing nuclear weapons will go a long way toward eradicating them, which calls for a fresh conversation about security and nuclear weapons in general.[2] Conversely, discussing nuclear power is not always limited to it. Other applications of nuclear power,

such as usage in the domains of industry, agriculture, health, and so forth, as well as use as a power source, can benefit human life in this planet.

Since the late 1950s, nuclear energy has been used to produce power. Additionally, nuclear energy has been applied to maritime propulsion. Its application today is crucial for numerous sectors including archaeology (dating of minerals and rocks), industry (radioluminescence, smoke detectors, etc.), medical (radiopharmacology, radiotherapy, radiosurgery, etc.), and many more. Additionally, several nations use nuclear energy for defense (military) purposes. From a legal standpoint, the current peaceful use of ionizing radiation and nuclear energy is governed by a robust legal framework that was formed by legally binding international agreements that were adopted under the aegis of the International Atomic Energy Agency (IAEA), the Organization for Economic Co-operation and Development (OECD), and International Maritime Organization (IMO). Nuclear safety, nuclear responsibility (formed both under the auspices of the OECD, IAEA, and IMO), nuclear security, and radioactive waste management issues are all covered by international legal instruments. Early notice and mutual assistance in cases of nuclear accidents or radiological emergencies are also covered. Most nations that use nuclear plants to generate power on their soil are currently bound by such international legal treaties.[3]

Despite the risks associated with using nuclear energy, notably in the sphere of armaments, there is a bigger potential for its usage for the benefit of mankind. Even while nuclear power is employed for beneficial purposes, such as in the health sector or for the generation of electricity through nuclear power plants, there are still worries about its risks (NPPs). It calls for a device that can set boundaries on what nuclear power may and cannot be used for. The tool in question is a piece of legislation that allows for the creation of regulations that serve as standards for the use of nuclear power. For a very long time, nuclear power and nuclear legislation have been an unending discussion, and even studies have been conducted on the subject.[4] However, there are instances when merely having a ruling ”law” is insufficient since it is conceivable for the ”law” to fall short of the ideal that it purports to uphold—namely, for the sake of humanity. Religious principles must be included into Indonesian law on both the international and national levels. As with other international customs based on religious values, the functioning of religious values has a specific ability that can be very useful in the development of modern international law. Therefore, it can be claimed that principles derived from

religion and *tawhid* thought have a positive impact on the origin of international customs in addition to affecting the development of those customs.[5]

One of the prospective nations to maximize nuclear power for the benefit of all citizens living on its soil is Indonesia. Indonesia needs sustainable development to realize this. By ratifying international treaties, passing legislation and executive orders, and releasing National Nuclear Power Agency (BATAN) regulations, Indonesia can use nuclear energy as a source of sustainable development energy. Indonesia has had research reactors in the infrastructure sector that are used for technological mastery and are backed by human resources that belong to Indonesia. The National Determined Contribution of Indonesia also outlines the country's commitment, which is to reduce greenhouse gas emissions by 26% by 2020 and up to 41% with international assistance.[6] In order to set restrictions on what may and cannot be used in the usage of nuclear power by Indonesia, a comprehensive legal system is required. Religious values must be considered when constructing or creating a nuclear legal framework in Indonesia, just as they must be considered at the international level, as was covered in the paragraph before this one. The prophetic legal paradigm is thought to be the most suitable framework for legal studies that relate to religious beliefs. Considering the foregoing context, the author wishes to investigate how the legal system in Indonesia that governs nuclear power fits within the framework of the prophetic legal paradigm.

2. Methods

This study employed doctrinal legal research. Through literature reviews of primary and secondary legal materials, data for this study was obtained or gathered. A descriptive analysis is done on the collected data.

3. Results and Discussion

Indonesia has been using nuclear power for a very long period, particularly in the health industry. Later, a discussion on Indonesia's plans to build nuclear power plants (NPPs) has emerged. Nuclear power plants, or NPPs, are anticipated to achieve commercial operation date (COD) for the first time in 2049. The NPP will have a 35-gigawatt capacity overall, according to plans (GW).[7] The existence of such debate must unquestionably be accompanied by legal frameworks that govern it. Law Number 10 of 1997 on Power,

together with many governmental rules under it, contains the most recent provisions pertaining to the law controlling nuclear power in Indonesia. It is vital to update the power rules at the legal level because the regulation has several drawbacks and has been in place for a very long time.[8]

In the past, nuclear power facilities have run a high danger of being affected by potential natural catastrophes, like those in Japan. Around 70 km off the east coast of Honshu, the largest island in Japan, a significant earthquake struck in the Pacific Ocean in 2011. The four reactors of the Fukushima-Daiichi nuclear power plant were protected by floodgates that were inundated by the ensuing tsunami. At the time, one of these four reactors was receiving treatment. The three active reactors cannot maintain post-shutdown reactor cooling, which results in overheating of the cores. When this happens, explosive reactions between high-temperature hydrogen vapors and nuclear fuel cladding take place.[9] There are many things that can be discovered and then used as the foundation for advancements in nuclear power development, particularly in relation to its legal ramifications. According to the research collaboration for nuclear risks: environmental, financial, and safety (NREFS), there are indeed fresh lessons to be learned. A significant portion of the NREFS's work involves quantitative analysis to look at the justification for the policy of population evacuation following a serious accident. The location of nuclear power plants, the post-Fukushima-Daiichi nuclear liability regime, the economic ramifications of a hypothetical nuclear accident in the UK, policy responses and strategies to restore and adjust the electrical system after dramatic capacity reductions, as has been the case in Japan since March 2011, are some additional factors to consider.[10]–[13]

To prepare for the scenario as mentioned above, a thorough discussion is necessary. Even while the risk cannot be entirely removed, it must be reduced. One could argue that it is hard to totally rule out the potential of an accident with off-site effects. According to researches, large-scale permanent relocation of residents within the evacuation zone for those exposed to radiation (as in the case of Chernobyl) has demonstrated to be economically much less advantageous than alternative policies that can be implemented: Rapid remediation and short-term evacuation, followed by the subsequent return of persons who were evacuated.[14] In the case of prolonged radionuclide release, it has been suggested that short-term protection can be harmful if a subsequent evacuation is necessary (due to the possibility of an increase in the radiation dose received during evacuation); and (b) while there were no radiation deaths from accidents at Fukushima

Daiichi, it is estimated that 1793 people lost their lives during subsequent evacuations; these are two examples of such challenges from the incident in 2011.[15], [16] Similar to Chernobyl, the Fukushima Daiichi tragedy led to a need to evaluate and possibly alter the nuclear liability regime to guarantee compensation to the victims'.[17]

The above discussion demonstrates the potential consequences of using nuclear electricity, particularly when it is used in nuclear power plants. Even if there is a legislative framework that limits and serves as a guideline for the use of nuclear power, the issues still exist. As a result, situations where there is no clear legal framework, or when one exists but has not been updated in a while, are more dangerous. If the Indonesian government wants to move on with the NPP project and other issues relating to the use of nuclear power in Indonesia, then serious debates are required. Note that safety, security, safe watch, and nuclear are the four important ideas. In Indonesia, there has always been a rule of law, both at the level of laws and regulations above. Updates are required because it still has gaps and must be fixed. The development of nuclear power, as well as the development of nuclear legislation (security and safety), should all be considered when revising nuclear-related laws.[8]

The topic on the renewal of Indonesian nuclear law needs to go beyond just creating a "law that controls the use of nuclear power" considering experience at the international level and conditions there. The idea is that a paradigm shift is required for the advancement of nuclear law such that the ultimate objective is not only "there are laws," but rather "there are rules that aim for the welfare of mankind," which of course also includes the four fundamental principles of nuclear law. The prophetic legal paradigm is the appropriate one to apply. The prophetic law approach paradigm can at least be broken down into three categories. Each model aims to comprehend various facets of ontology, epistemology, and axiology. The phenomenon in the form of norms in the normative world in relation to the dialectical world, with the world of ideas and the empirical world concurrently, needs to be taken into consideration to grasp the features of ontology. The integration of science and religion must also be considered to comprehend the epistemological elements. Justice is also the crucial concept in comprehending the axiological element. More specifically, achieving justice for oneself, the environment, and the universe is what is meant here. The purpose of justice in prophetic law, which is the last stage, deviates from its foundation in humanization, emancipation, and transcendence.[18] Prophetic science can reinstate a more humanist law. Additionally, we might liberate in the sense of releasing oneself

from the constraints of overly rigid legal precepts. These two pillars will also lead to the third pillar, which is transcendence, together. The goal of human life will be better with transcendence. Humans will have a higher purpose in life than what has been accomplished thus far. There is room for divine values.

Furthermore, if it has to do with nuclear law, particularly in Indonesia, the prophetic legal paradigm can help create a framework for nuclear law that is just and truthful, placing a priority on the wellbeing of all Indonesians, the environment, and the cosmos. Transcendence, liberty, and humanization are three values that can be combined. The advantages and security of mankind are what nuclear law is supposed to be about, not simply nuclear power itself. The nuclear law that is constructed must be able to humanize people rather than reduce them to being purely complementarian. Liberation will result in liberation from the restrictions placed on the use of nuclear power under unsafe conditions. Additionally, it is to dispel the false notion that nuclear energy can only be used for armaments, which would result in the annihilation of humanity. In fact, nuclear energy has a lot to offer to humanity. The ideal of justice will then be transcended within the context of the prophetic legal paradigm. This can be demonstrated in the way that nuclear law will ultimately benefit humanity.

4. Conclusions

The Indonesian nuclear law framework needs to be updated and harmonized. Numerous things can be enhanced. The crucial thing to remember is that it is not simply about passing worthless laws that ultimately just offer phony security and justice. Laws must consider principles that serve the interests of humanity, particularly in Indonesia. Transcendence, liberty, and humanization are three values that can be combined. This paradigm will lead to the establishment of nuclear law with prophetic dimensions, bringing about real security and justice.

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