STATE LIABILITY IN NUCLEAR SAFETY ADMINISTRATION – A JAPANESE CASE AFTER THE FUKUSHIMA ACCIDENT

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Abstract

In the history of the peaceful use of nuclear energy, the Fukushima accident in 2011 was the largest and first ever accident that forced a fundamental review and improvements of the Japanese nuclear regime. Although it is widely shared that the primary responsibility of a nuclear accident belongs to the operator of the nuclear installation that caused the accident, in view of the inevitable close relationship between the nuclear industry and the national policy, the roles and responsibility of the state was also questioned in the course of the reconstruction of the society after the accident. In this regard, this paper summarizes how the accident has influenced the nuclear safety regulation and the damage compensation frameworks and considers what role the state is required to play. A well-established regulatory system and an effective damage compensation framework are inseparable for the growth and success of the industry that inherently involves various stakeholders and a potential high risk over a large area.

1. Introduction

Nuclear safety has been naturally under the scope of national sovereignty. Triggered by the 1986 Chernobyl accident and the 1991 Soviet Union dissolution, however, international collaboration was launched and further promoted to achieve a higher level of nuclear safety. Following the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management were concluded. While these international frameworks properly reflect the cross-border character of nuclear incidents and are beneficial in particular for the newly joining countries in the nuclear sector, they never deny the national sovereignty and rather highlight the importance of the national laws and regulations for effective implementation of these conventions.

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The movement on an international nuclear civil liability regime has a longer history since the 1960s, including the 1960 Paris Convention, the 1963 Vienna Convention, the 1997 Convention on Supplementary Compensation and relevant protocols. The exclusive liability of the operator of the nuclear installation that caused the accident has been one of the common principles together with the absolute liability of that operator. Once concluding any of the nuclear liability conventions, the contracting state has the obligation to arrange the domestic legal and financial basis to implement it, while the primary responsibility remains with the operator of the nuclear installation.

Following the Fukushima accident in 2011, of which both the magnitudes of danger and damages were enormous in comparison with the past nuclear accidents over the world, the Japanese nuclear safety administration had to go through major changes in its organization, its requirements and implementation frameworks. Not only the operator, but the government itself has been facing various lawsuits seeking compensation for the damages by the accident. These facts explicitly require a certain critical role of the state in the field of nuclear safety, in spite of the primary liability of the operator. The modifications of the nuclear safety regulation and liability frameworks in Japan, including some case studies on the state liability, are focused on in this paper for further considering the role of each state in nuclear safety.

2. Nuclear safety regulation

2.1 Nuclear regulatory authority

While a certain amount of research on nuclear energy had been carried out during the wartime, it had been fully prohibited after the World War until the entry into force of the Treaty of Peace with Japan (Treaty of San Francisco) on 28 April 1952. Following the submission of a nuclear research and development budget to the Parliament in March 1954, the Basic Law of Nuclear Energy was established on 19 December 1955 with the purpose "to secure energy resources in the future, achieve scientific and technological progress, and promote industry by encouraging the research, development and utilization of nuclear energy, thereby contributing to the improvement of the welfare of human society and of the national living standard" (article 1). The Law states as the basic policy that "the research, development and utilization of nuclear energy shall be limited to peaceful purposes, shall aim at ensuring safety, and shall be performed independently under democratic administration, and the results obtained shall be made public so as to actively contribute to international cooperation" (article 2). These "independently", "democratic", and "public" are so-called the three fundamental rules of nuclear energy.

The Basic Law initially provided the establishment of the Atomic Energy Commission (AEC) under the former Prime Minister's Office (the current Cabinet Office) in 1956 to develop national policies on research, development and use of nuclear energy, while the Nuclear Safety Commission (NSC) was created in 1978, also under the former Prime Minister's Office, to take over a part of the AEC's responsibility on nuclear safety. Under the Basic Law, regulations on the safety of nuclear facilities are being enforced by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) for experimental and research reactors and facilities using radioisotopes, and by the Nuclear and Industrial Safety Agency (NISA) of the Ministry of Economy, Trade and Industry (METI) for commercial nuclear power plants and other facilities. Within METI, there were two agencies in terms of the use of nuclear energy; the NISA and the Agency of Natural Resources and Energy (ANRE). The role of the ANRE was to ensure a stable and efficient supply of energy, to promote appropriate usage of energy, and to ensure industrial safety, while the NISA was a special organisation for regulating both nuclear and industrial safety.

As a consequence of the Fukushima accident in 2011, Japan has fundamentally revised its regulatory system and the Nuclear Regulation Authority (NRA) was established, under the NRA Establishment Act, as a new and unique regulatory authority on 19 September 2012. The NRA is an external bureau of the Ministry of Environment and took over various functions that were formerly belonging to a range of administrative bodies. One of the major modifications was that the AEC and the NSC acted as advisory bodies by issuing recommendations to the Prime Minister (National Government Organization Act article 8), while the NRA is authorised to behave as a part of the Ministry (National Government Organization Act article 3ii).

Regarding emergency cases, only an ad hoc Nuclear Disaster Response Team could be arranged and dispatched for emergency responses under the previous Nuclear Emergency Preparedness Plan of Japan; the Fukushima accident, however, extended over a larger scale and a longer time span than the Plan and any relevant international guidelines had covered. Through the revision of the Basic Law following the Fukushima accident, a Nuclear Disaster Management Council was newly created as a permanent organ under the Cabinet Office. The Prime Minister acts as Chair of the Council and the NRA Chair as Vice Chair. [1]

2.2 Regulatory requirements

Based on the lessons learned from Fukushima, apart from the re-organization of the nuclear safety authority, the structure of the nuclear regulatory standards was also modified.

First, in June 2012, the Regulations for Nuclear Source Material, Nuclear Fuel Material and Reactors were amended, emphasizing that measures against severe accidents must be included in

the safety operation and that new regulations, introducing a back-fitting system, would authorize enforcement of the latest regulatory requirements on already licensed facilities.

Subsequently, the NRA carried out a complete review of the safety guidelines and regulatory requirements with the aim of formulating a set of new regulations to further protect the people and the environment. It pointed out that the previous regulatory requirements did not cover "severe accidents" and that there existed no legal framework in place to retroactively apply new requirements to existing nuclear power plants, which hindered continuous safety improvements. The new regulatory requirements for commercial power reactors went into force in July 2013. They introduce new measures, such as for preventing core damage, and reinforce existing measures such as considering several types of natural phenomena other than earthquakes and tsunamis.

Once the new regulatory requirements enter into force, the operators are ordinarily requested to sequentially incorporate them into the reactor instalment license, the plan for construction works, and the operational safety program. Based on a serious concern resulting from the consequences of the Fukushima accident, however, it was agreed upon to deal with all three items simultaneously for an effective and efficient implementation of the new requirements.

2.3 Independence of the regulatory body

With respect to the nuclear safety regulatory authority, one of the main IAEA Safety Standards, the Governmental, Legal and Regulatory Framework for Safety (No. GSR Part 1), is a non-legally binding instrument, but is followed in the internationally shared practice to achieve a higher nuclear safety. It defines that one of the requirements for the government is to "ensure that the regulatory body is effectively independent in its safety related decision making and that it has a functional separation from entities having responsibilities or interests that could unduly influence its decision making" (Requirement 4: Independence of the regulatory body).

The IAEA Integrated Regulatory Review Service mission to Japan took place in 2016 and concluded that they recognized "the improvements made by the Japanese government in terms of separating the NRA from promoting ministries, and providing it with the necessary means to act independently from external interests" mainly because : the NRA clearly separated from other entities, such as METI, who holds jurisdictions over the use of nuclear energy; the NRA has clear authority and competence over safety regulation; the NRA engages in independent decision-making concerning regulatory activities without any involvement by the authorities tasked with promoting nuclear energy; independence of the staff members of the NRA Secretariat is ruled; and the NRA budget is approved in the process with no involvement of authorities tasked with promoting nuclear energy. [2]

3. Nuclear liability

3.1 Japanese legal framework

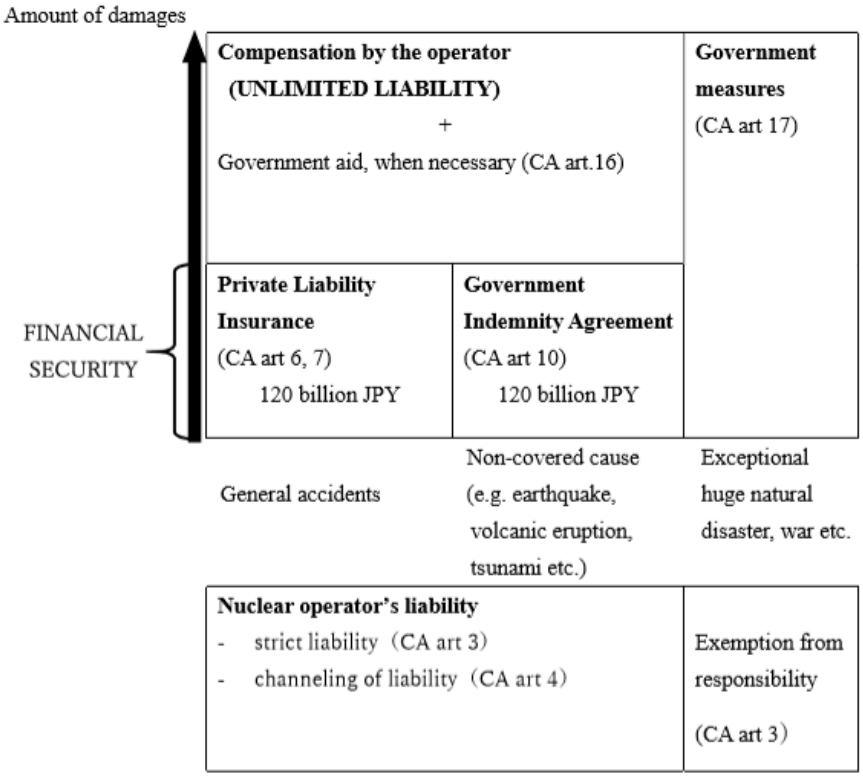
In principle the Civil Code is to apply for any damage caused by a nuclear accident. However, due to an expected difficulty in proof of causality or possible long-term period for the appearance of radioactivity-related disorders, a special law on nuclear damage compensation is often enacted. In Japan the Act in Compensation for Nuclear Damage (Compensation Act, "CA") was established in this regard as a special law of the Civil Code for nuclear damage for the purpose of protecting the victims and contributing to the sound development of nuclear power projects. [3]

The Compensation Act provides "absolute liability" for nuclear damage (CA article 3) and "legal channeling of liability" to the operator (CA article 4), which put the entire liability for compensation of nuclear damage to the operator with an exemption in the cases where the damage is caused by "a grave natural disaster of an exceptional character" or by an insurrection (CA article 3). It also requests a financial security up to the amount of 120 billion JPY to the operator by concluding a private liability insurance for general accidents and a government indemnity agreement for the rest damages which are not covered by the private insurance (CA article 6, 7 and 10, and Act on Indemnity Agreement for Compensation of Nuclear Damage). While the Compensation Act defines "nuclear damage", nuclear compensation covers any damage with a legally sufficient cause as "unlimited liability", following the practices under the Civil Code.

Extinctive prescription of three years from recognition of the damage and the tortfeasor and twenty years after the act of tort were given according to the then Civil Code (article 724). For the victims of the Fukushima accident, as written below in 3.2, the special laws on the statute of limitations of nuclear compensation were established in 2013 to extend the period of claims. Afterwards, in May 2017, the Civil Code article 724 was revised to five years, instead of three years, for any tort harming life or body and twenty years after the act of tort in case no action taken for compensation.

In terms of the role of the government, the Compensation Act provides the government aid, when necessary, for compensation beyond the financial security of the operator (CA article 16) and requests the government to take the necessary measures to relieve the victims and prevent the spread of damages (CA article 17).

Figure 1: Japanese legal framework for nuclear compensation



For the international aspect, Japan enacted the necessary domestic legislation and joined the Convention on Supplementary Compensation for Nuclear Damage (CSC) in January 2015, which triggered the CSC's entry into force in April 2015. Although there was no inevitable relationship between the timings of the CSC entry and of the Fukushima accident, it is expected to promote further international cooperation to the decommissioning work of the Fukushima Daiichi nuclear power plants as well as support for Japanese manufacturer's plant export. It would be also the first step in establishing a nuclear damage compensation system widely in the Asia Pacific region.

3.2 Compensation for the Fukushima accident

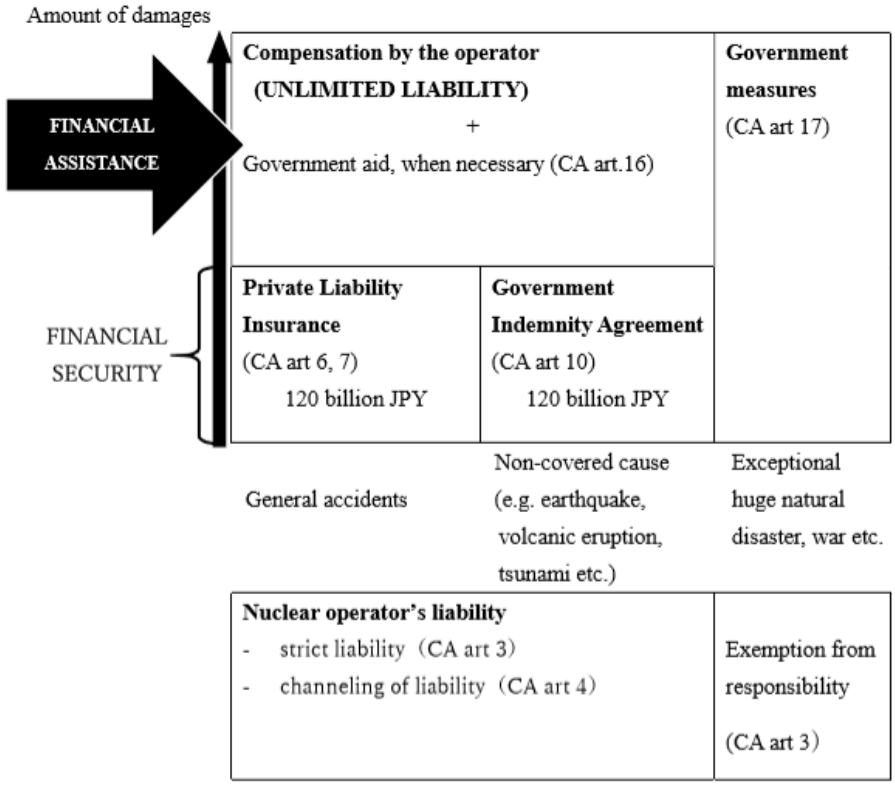
In response to such a large-scale accident, the Japanese government took several measures to protect victims by not-applying the exemption clause. As of 7 September 2018, the total amount of compensation by TEPCO is approximately 8 trillion 345,2 billion JPY. [4]

Pursuant to Compensation Act article 18, the Dispute Reconciliation Committee for Nuclear Damage Compensation (DRC) was established in April 2011. It issued the Guideline for Determination of the Scope of Nuclear Damage to clarify a scope of damages and calculation methods, which is not legally binding but as a *de facto* standard, and set up the Nuclear Damage

Compensation Dispute Resolution Centre (ADR Center) to mediate reconciliation of disputes. As of end of 2017, the ADR Center received 23,215 applications by 105,849 individuals. [5]

For further facilitating the process of nuclear damage compensation and ensuring appropriate operation of nuclear power plants, including power generation, the Nuclear Damage Compensation Facilitation and Decommissioning[2] Corporation Act (Corporation Act) was enacted in August 2011, and based on it the Nuclear Damage Compensation and Decommissioning Facilitation Corporation was established in September 2011, co-funded by the government and the nuclear industry. It currently acts as a mechanism for the Japanese government to take over funds for damages by the Fukushima accident which should be covered by the operator, TEPCO.

Figure 2: "Financial assistance" by the Nuclear Damage Compensation and Decommissioning Facilitation Corporation



As mentioned in above 3.1, the principle is that the Civil Code is applied for extinctive prescription, which was, at the time of Fukushima accident, three years from recognition of the

[2] "Decommissioning" was added in the revision in August 2014.

damage and the tortfeasor and twenty years after the act of tort. i.e. the data of the accident in this case[3]. Given the peculiar nature of the accident happening as a part of the great earthquake and tsunami, however, the Special laws on the statute of limitations of nuclear compensation were established in 2013 to apply for the victims suffering from the Fukushima nuclear accident. Ten years from recognition of the damage and the tortfeasor, instead of three years, and twenty years after the occurrence date of the damage, instead of the date of the accident, are now applied (Special Law on Statute of Limitations, article 3), considering a possible long-term period for appearance of radioactivity-related disorders after the accident itself. Article 2 of the Special Law on Interruption of the Statute of Limitations provides that, once a reconciliation is applied, the victim can still file a lawsuit within one month in case of suspension of the reconciliation. The lawsuit is considered to be filed on the date of application of the reconciliation.

3.3 District Courts decisions

The Fukushima accident is the first ever case that the Japanese nuclear compensation system faces a mass of claims from the public. In the current framework, the ADR Center is expected to play a major role in the settlement of compensation claims, however, among the 23,215 applications, as of end of 2017, only 17,548 cases reached amicable settlements, while 1,671 are not settled and 1,816 still ongoing. [5]

As there are a number of not-settled cases due to refusal by the TEPCO side, more cases may be shifted from ADR to litigation in the near future. For example, in 2013 Namie Town requested the ADR Center to increase the compensation amount, representing about 70% of the population, or more than 15000 residents. In March 2014, the Center presented a settlement plan to add 50,000 JPY uniformly to the original 100,000 JPY per month/person. Although the town was ready to accept, TEPCO did not accept it because such a uniform compensation is lacking fairness among the victims and is not consistent to the government policy. Despite repeated mediations by the Center, in April 2018, the Centre informed the town of the cloture of the settlement procedure. Prior to this, in September 2014, the Japan Federation of Bar Associations issued a statement requesting TEPCO to comply with the "respect for settlement proposals" set up in their new Comprehensive Special Business Plan in January 2014 and to accept the settlement for prompt compensation to the victims, as well as the government to direct TEPCO accordingly. [6]

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[3] As written in 3.1, the Civil Code article 724 was revised afterwards in May 2017 to five years, instead of three years, for any tort harming life or body and twenty years after the act of tort in case no action taken for compensation.

Under such a circumstance, at least 30 lawsuits have been filed at 18 district courts against the State of Japan, under the State Redress Act[4], for its failure to exercise its regulatory authority against the operator, TEPCO, in addition to the operator's responsibility pursuant to the Compensation Act. As of end July 2018, five district courts have given decisions, of which four courts admitted the responsibility of the State. The criteria used by the district courts to admit the state responsibility are: if the State could have foreseen such a large-scale tsunami; if the State had an authority and could have prevented the accident; and if the non-exercise of the authority was remarkably irrational thus could be considered as illegal. All five courts concluded that the State had the foreseeability, while Chiba denied the possibility to avoid the accident. Maebashi and Kyoto admitted that the State has an equal responsibility to the operator towards the victims, while Fukushima limited it to one half of the operator. In this section, the five decisions are summarized with a focus on the state liability.

3.3.1 Maebashi District Court decision on 17 March 2017

This is the first decision on class actions in relation to the Fukushima accident. Although the recognized amount of damage was limited, it is a landmark as it found that the government has responsibility equal to the one of TEPCO.

The Court stated that the regulation on this case includes a wide scope of technical discretion thus the non-exercise of authority becomes illegal only when it is remarkably irrational. It continued that, in this case, the operator is obliged to meet the technical requirements under the Electricity Business Act ensuring safety of all stages, from design to operation, and to take necessary measures against tsunamis, and that the State had the authority to issue an order to the operator to conform to the technical requirements.

The Court found that the State had been able to foresee a large tsunami beyond the protected level of the site, at least a few months after receiving the Long-Term Evaluation on possible earthquakes in that region by the Headquarters for Earthquake Research Promotion on 31 July 2002, and that it could have prevented the accident by the exercise of its authority at latest with the TEPCO's calculation of March 2008 based on the Long-Term Evaluation. It further stated that, having noted that damages from nuclear accidents could be extremely serious, including loss of life, and that the nuclear industry necessarily contains the risk of severe accidents, the State had promoted the use of nuclear energy as one of the important policies, and the non-exercise could be considered as remarkably irrational, thus illegal at latest as of March 2008.

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[4] The Japanese government interpreted the State Redress Act as not excluding the possibility of state liability in the case of negligence, in spite of the channeling clause of the Compensation Act. [7]

3.3.2 Chiba District Court decision on 22 September 2017

While the Maebashi District Court admitted the state liability, even equal to the operator, the Chiba District Court gave a decision not to accept this, while it approved a part of the operator's liability. This is the second decision given among the similar lawsuits.

Two major points of dispute in terms of Article 1,1 of the Compensation Act were: whether it was illegal that the permission was given for installation of the Fukushima Daiichi nuclear power plants; and whether non-exercise of the regulatory authority was illegal. The first point was denied since no unreasonable points were found in the examination criteria, nor not-overlookable errors in the judgement process were found.

The plaintiff claimed, for the second point, that the State could have prevented the accident based on the Long-Term Evaluation of 2002 and TEPCO's calculation of March 2008 based on it. However, the Court stated that, considering the level of foreseeability of the State, it could not immediately bring an obligation to prevent the accident by taking necessary measures against tsunamis, including securing emergency power supply and additional measures against complete power loss; and that, even if these measures were taken, the accident could not be avoided due to time limitation and the scale of the earthquake and tsunamis. It concluded that, therefore, the non-exercise of the authority could not be considered remarkably irrational, and thus not illegal.

3.3.3 Fukushima District Court decision on 10 October 2017

This is the third case and the number of plaintiffs is one of the largest, i.e. about 3800 residents. The Court stated that the State could not avoid the responsibility, but the primary responsibility for the safety of nuclear power plants remains with the operator, while the State is responsible for overseeing the operators. Therefore, it ordered both to jointly pay damages for mental anguish of approximately 70% of the plaintiffs, but the amount paid by the State should be limited to one half the amount paid by the operator.

The Court stated that the State could have foreseen tsunamis beyond the height of the site based on the Long-Term Evaluation in 2002 and could have prevented the accident if it ordered TEPCO to secure safety measures against such tsunamis accordingly. Therefore, it concluded that the non-exercise of the authority in this regard could be considered remarkably irrational, thus the State could not avoid the responsibility.

3.3.4 Kyoto District Court decision on 15 March 2018

Following the Maebashi and Fukushima decisions, the Court ordered both the State and TEPCO are responsible for the damage compensation.

The Court states that the State could have foreseen tsunamis beyond the height of the site based on the Evaluation in 2002 and it had the authority to order the operator for necessary actions according to the Electricity Business Act. It continued that even if no authority is given under the Electricity Business Act, it still could have issued an administrative guidance to change the basic design of the plants, and even if the operator did not react it could withdraw the license or suspend a part of operation. Taking into consideration other aspects (e.g. nuclear operation requires high safety and naturally contains a higher risk of severe accident; only the State could order the operator, not by any other public; the objectives of the Electricity Business Act and other relevant acts), it said that the State should have taken action by the end of 2006 and if this had been the case the accident could have been avoided. Therefore, it concluded that the non-exercise of authority after 2002 and at least at the end of 2006 could be remarkably irrational and thus illegal, and that the State is responsible for compensation.

Concerning the proportion of the responsibilities, the Court also stated that, while it is true that the primary responsibility belongs to the operator and the one of the State is only secondary or acts as a guardian, it cannot be a legal basis to affect the responsibilities towards the victims, thus both have a responsibility for the full amount of damage compensation.

3.3.5 Tokyo District Court decision on 16 March 2018

The Court stated that both the State and TEPCO have the responsibility for the damages. It found that both could have predicted the potential large scale of tsunamis before the end of 2002, based on the Long-Term Evaluation issued in the same year, and could have avoided the accident by taking the necessary measures. It further said that TEPCO had an obligation to take these measures by end of 2006 and that the State was obliged to exercise authority for those also before the end of 2006.

3.4 Towards a revision of the Japanese framework

In the course of nuclear damage compensation for the Fukushima accident, the Atomic Energy Commission established the Advisory Committee on the Nuclear Damage Compensation System in 2015 with the objective to examine the nuclear damage compensation system to be properly ready for any future nuclear accident. [8]

In the 19th meeting of January 2018 the Commission summarized their three years' discussions and issued a draft on the revision of nuclear damage compensation system, which was reexamined in the 20th meeting of August 2018. At the beginning of the meeting, the following points were mentioned in terms of the upcoming revision of the Compensation Act: 1) interruption of prescription due to application for a conciliation procedure; 2) policy on damage compensation by each operator; 3) financial support by the government to the responsible operator for temporary

advanced payment; and 4) principles and basic framework of the nuclear compensation system, including the amount of compensation and roles of the government. Points from 1) to 3) are considered to be included in the revision, while it was proposed not to make any modification on 4).

Once the revisions on 1), 2) and 3) are approved, while 1) was already arranged by preparing the Special laws on the statute of limitations of nuclear compensation in the case of the Fukushima accident, as given in 3.2, they will be provided directly in the Compensation Act. Each operator will be requested to publish a policy how to compensate nuclear damage. For facilitating the temporary advanced payment by the operator to the victims, for example those who have to evacuate from their hometown, the government will provide financial support to the operator. These contribute to the relief of the victims and no argument was needed.

Meanwhile, various opinions were brought during the 20th meeting in particular concerning the role of the government for point 4). The reasons not to include point 4) into the upcoming revision were explained as follows. First, the current amount of compensation by the private insurance market (120 billion JPY), which was the basis for raising the amount in the past revisions of the Act, is already high enough in comparison to the worldwide trend and the medium- or long-term outlook for domestic and foreign insurance markets is severe. Second, the financial security framework is already established by the Compensation Act for 120 billion JPY and the mutual assistance scheme of the operators by the Cooperation Act, while the magnitude of the financial burden is unlikely to be predictable by the operator and it is necessary to further investigate the expected competitive relations among the operators especially due to power liberalization. And, the evaluations of the newly established nuclear safety regulations and voluntary actions for a higher safety level by the operator are still ongoing and it is too early to include this into the revision. On the other hand, because the applicable period of Article 20 of the Compensation Act, concerning the conclusion of a government compensation agreement is 31 December 2019, the Compensation Act is required to be revised in order to extend this period before the deadline. Having noted this timing of the next revision, it was concluded that further examinations and discussions are needed to revise the Act on point 4).

It was pointed out that the latest Basic Energy Plan, approved by the Cabinet on 3 July 2018, says that we should not leave the problems on damage compensation, decommissioning and intermediate storage of waste etc. to the operator only and that the state has to play a key role in the foreground, and this lack of reflection of the roles of the government does not match this policy. Together with the “unlimited liability”, it was also requested to raise a question about the amount of compensation, but no agreement was reached on this point too. It can therefore be said

that these expected revisions are beneficial for the victims, while the predictability of the operator's burden remains unclear.

After taking into account the opinions expressed during the 20th meeting, this draft will be submitted to a public commenting process for the period of one month. The final draft will be reviewed at the next meeting and will be the basis to revise the Act in due course.

4. Conclusion

On 11 March 2011, due to the earthquake of magnitude 9.0 and the accompanying tsunamis, the Tohoku region was devastated and the accident of the Fukushima Daiichi nuclear power plant occurred. In response to this large-scale nuclear accident, Japan was forced to fundamentally review and modify the nuclear safety administration regime and its nuclear damage compensation system has faced a mass of claims even now after more than seven years. Although it is a widely shared principle that the primary responsibility of a nuclear accident is belonging to the operator of the nuclear installation that caused the accident, the nuclear industry cannot naturally go away from the country's policy, and rather it can be said that the private enterprises are implementing the policy. Once an accident happens, the risk of damage is broad and even beyond the national borders. Having noted these properties of the nuclear use, the role and responsibility of the state have to be clarified.

The institutional design to maintain the independency of the nuclear safety authority from its promotion activities has been improved after the accident, while the district courts tend to accept the state responsibility for nuclear accident damage at various scales. It may imply a need to review the current nuclear damage compensation system to add more active and even joint responsibility of the state for nuclear damage compensation, while the state is expected to be in the position of supporting the compensation by the operator under the current framework. It is in principle not simple to admit any non-exercise of state authority as being illegal, in particular in a highly technical and scientific field, like nuclear. All the proceeding lawsuits, introduced in 3.4, have been appealed to the high courts and the judgements of the high courts have gained notable attentions.

Even at the Advisory Committee on the revision of the Compensation Act, an agreement is under preparation in a direction not to clarify the role and responsibility of the state in the upcoming revision, though many active opinions have been being raised during its discussions. This also shows a difficulty to take a step forward at this moment when deliberation at the appeal court has started after the losing judgements of the state. As soon as having the judgements of the high courts, or even the Supreme Court, further discussion is expected to resume in this regard.

An effective damage compensation framework is, together with a highly independent and transparent regulatory system, indispensable for the growth and success of the industry that inherently involves various stakeholders and enormous risk across the borders. Reflecting on the lessons learned from the accident that caused much sacrifice, to establish a well-balanced and effective compensation system is the responsibility for the next generation.

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