

## Research on the Application of ADR in the Field of Nuclear Damage Compensation in Japan

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**Abstract.** After the nuclear accident at Fukushima nuclear power plant, the Japanese government and Tokyo Electric Power Company boldly used ADR mechanism in the compensation process, and achieved good results. This measure can be said to provide a good reference model for China to apply ADR in the field of nuclear damage compensation in the future. This paper will focus on the origin, process and effect of ADR application in the field of nuclear damage compensation in Japan, deeply compare the differences between ADR and litigation system in nuclear damage compensation, and summarize the advantages of ADR in nuclear damage compensation, in order to provide valuable and meaningful reference for China to introduce ADR into the field of nuclear damage compensation.

Keywords: Database Japan; Compensation for nuclear damage; ADR

### 1 INTRODUCTION

On March 11, 2011, the tsunami caused by the earthquake caused a series of nuclear accidents such as furnace core melting (core melting) at Fukushima Daiichi Nuclear Power Plant operated by Tokyo Electric Power Company of Japan, which was assessed as the worst level 7 serious accident by the International Atomic Energy Agency. After the accident, the Japanese government and Tokyo Electric Power Company actively responded to the compensation for nuclear damage caused by the nuclear accident, and boldly used ADR mechanism in the compensation process, and achieved good results. Finally, the application of ADR has become a bright spot in the compensation of Fukushima nuclear accident. This paper will reproduce the specific process of applying ADR to damage compensation in Fukushima nuclear accident in Japan through the following explanation.

### 2 APPLICATION OF ADR IN NUCLEAR DAMAGE COMPENSATION

Before the Fukushima nuclear accident, according to Japan's nuclear damage compensation system, the way to solve the dispute over nuclear damage compensation was trial. So far, Japan has paid compensation for nuclear damage twice. The first time to compensate for the JCO critical accident in Shojimura in 1999, which is the first nuclear damage compensation in Japan; the second compensation is the damage compensation of Fukushima nuclear accident in 2011.

In the compensation for JCO critical accident in Shojimura [1], the Japanese government started the nuclear damage investigation team, and sorted out 7,000 compensation claims. The main compensation objects are physical injury, inspection expenses, refuge expenses, property defacing, business suspension damage, business damage, mental damage, etc. The total compensation amount is about 15.4 billion yen. As JCO Dong Hai Business can only give out 1 billion yen, the rest will be made up by its parent company. In this nuclear accident, the victims applied for compensation to the Nuclear Damage Dispute Review Committee in 2 cases, and the court made 11 judgments on this nuclear damage dispute case [2].

Because the nuclear damage caused by the nuclear accident at Fukushima Daiichi Nuclear Power Plant on March 11, 2011 involves a large number of people and a wide range, in order to enable the victims to get corresponding compensation as soon as possible, the Japanese government boldly started ADR procedure, which opened a new milestone in nuclear damage compensation.

ADR, the abbreviation of Alternative Dispute Resolution in English, is translated as "extra-trial dispute resolution mechanism" in China. Professional, rapid and low-cost dispute resolution are the characteristics of ADR. This time, the Japanese government applied ADR in dealing with the compensation for nuclear damage caused by Fukushima nuclear accident, and achieved very good results.

## 3 JAPAN NUCLEAR DAMAGE DISPUTE RESOLUTION CENTER

In order to better apply non-litigation means to quickly solve the problem of nuclear damage compensation in Fukushima nuclear accident, in September 2011, the Japanese government quickly established the "Japan Nuclear Damage Compensation Dispute Resolution Center" (hereinafter referred to as the "Nuclear Damage Compensation Center"). The original compensation center belongs to the Ministry of Education, Culture, Sports, Science and Technology of Japan, and is a subsidiary of the Dispute Review Committee for Nuclear Damage Compensation in Japan (hereinafter referred to as the "Dispute Review Committee").

The Nuclear Damage Compensation Center consists of four parts: the General Committee, the Arbitration Committee, the Ombudsman and the Bureau of Affairs, as follows:

The General Committee consists of a chairman and two members. The chairman and members are selected and appointed by the Dispute Review Committee from former judges, lawyers and scholars. The General Committee is mainly engaged in three aspects of business, namely: 1. Appointing arbitration members for each claim for compensation case; 2. Summarize the business carried out by the arbitration commission; 3. Formulate, amend and abolish the basic standards in settlement and arbitration procedures [3].

The Arbitration Committee shall be a lawyer appointed by the General Committee, and shall be mainly responsible for professional affairs related to settlement and arbitration procedures. As of December 2020, the Arbitration Commission has 270 arbitration members. The original compensation center adopts the principle of "one case, one discussion" for cases. When some major cases are encountered, they are tried by a collegial panel composed of three arbitration commissioners, while other cases are tried by one arbitration commissioner alone [4].

The Ombudsman of the Nuclear Damage Compensation Center shall be a lawyer or a person qualified as a lawyer. The investigator is an external employee with a term of one year. As of December 2020, there were 105 investigators in the original compensation center. The investigator is mainly responsible for checking the application for specific cases, prompting the parties to supplement and modify the documents that need to be supplemented and modified, and at the same time undertaking the assistance to the arbitration committee [4].

The Bureau of Affairs refers to the Nuclear Damage Compensation Settlement and Arbitration Office, which is mainly responsible for administrative affairs, such as the acceptance of nuclear damage compensation applications, related investigations, planning adjustments and other affairs. The settlement and arbitration room of the original compensation center is composed of people with various backgrounds. As of December 2020, there were 111 people, including 23 people from Fukushima Office [4].

# 4 THE PROCESS OF APPLYING ADR TO RESOLVE DISPUTES OVER NUCLEAR DAMAGE COMPENSATION

As the administrative agency of the Japanese government applying ADR to solve nuclear damage compensation, the Nuclear Damage Compensation Center only solves disputes through the procedure of "arbitration and settlement" (Article 18, Item 2, of the Nuclear Damage Compensation Law), and the other party is always Tokyo Electric Power Company.

The work flow of the Nuclear Damage Compensation Center is: the application of the victim  $\rightarrow$  the investigation of the investigator  $\rightarrow$  the trial of the intermediary committee  $\rightarrow$  the proposal of the settlement agreement. The details are as follows:

The procedure of the Nuclear Damage Compensation Center is started according to the application of the victim. The victim himself or his entrusted agent applies to the Tokyo office for compensation. It is not necessary to express the loss amount in the application stage, that is to say, the victim can express the loss amount or not. In cases

where the victim himself is the applicant, even if the application is incomplete, the applicant need not worry, because in such cases, the Nuclear Damage Compensation Center does not reject the application, but requests the Ombudsman to examine the application and make recommendations such as amendments or supplements to his application according to the circumstances.

Once applied, the Nuclear Damage Compensation Center will assign the case to the investigator. The Ombudsman will be responsible for examining the application and requesting the applicant to amend or supplement the evidence according to the specific circumstances.

After the application meets the admissibility conditions, the matter will be assigned to the arbitration committee. Except for important cases, which will be heard by a collegial panel composed of three arbitrators, most cases will be heard by one arbitrator alone. The Arbitration Commission first discussed the application and relevant evidence, and after discussing the focus of the dispute, chose the time to ask the parties and witnesses.

After the above trial, if the application of the parties is not recognized, the settlement procedure will be terminated. Termination of the settlement procedure must be allowed by the General Committee. When it is difficult to propose a settlement agreement for all the claims of the applicant, in order to provide relief to the victim quickly, the arbitration committee may propose a settlement agreement for some of the claims, or reserve the final settlement and propose a tentative settlement agreement in which the settlement money is paid in advance.

When both parties reach an agreement on the settlement agreement, the arbitration committee confirms the contents of the settlement agreement and the settlement agreement is formally established.

### 5 ADVANTAGES OF ADR IN NUCLEAR DAMAGE COMPENSATION

There are three ways to apply for compensation for nuclear accident damage at Fukushima nuclear power plant, which are: 1. Direct negotiation with Tokyo Electric Power, 2. Applying for compensation to the Nuclear Damage Compensation Center, and 3. Litigation. In other words, victims of nuclear accidents can choose to claim compensation from any institution in Tokyo Electric Power, Nuclear Damage Compensation Center and the court. The relationship between the three compensation methods is as follows [5]:

In the first case, negotiate directly with Tokyo Electric Power. If you make direct representations to Tokyo Electric Power and are satisfied with the negotiation results, you will pay compensation directly; if you are not satisfied with the negotiation, you can also choose to file a claim for compensation with the Nuclear Damage Compensation Center or bring a lawsuit to the court. If a request is made to the Nuclear Damage Compensation Center, if the settlement plan is agreed through the settlement arbitration procedure, the compensation shall be paid directly; those who disagree with the settlement plan may bring a lawsuit to the court.

In the second case, apply to the Nuclear Damage Compensation Center for compensation. If a claim for compensation is submitted to the Nuclear Damage Compensation Center, if the settlement plan is agreed through the settlement arbitration procedure, the compensation shall be paid directly; those who disagree with the settlement plan may bring a lawsuit to the court.

In the third case, bring a lawsuit directly to the court.

Compared with direct negotiation and litigation with Tokyo Electric Power, applying to the Nuclear Damage Compensation Center has the following advantages:

- a. The application procedures are free, and
- b. Damage compensation for Fukushima nuclear accident can still be applied.
- c. It is simpler than the litigation procedure, and the victim can apply for it by himself.
- d. Although the lawyer's fee needs to be borne by himself, the Nuclear Damage Compensation Center will give the lawyer's fee subsidy, which is 3% of the settlement amount.
- e. You can also apply for direct negotiation with TEPCO while submitting compensation to the Nuclear Damage Compensation Center.
- f. You can also apply if you have reached an agreement with TEPCO, and you will not propose a settlement plan lower than that proposed by TEPCO.
- g. For the amount that is not disputed with TEPCO, you can quickly propose a part of the settlement plan [6].

To sum up, ADR has fully demonstrated its advantages of autonomy of will, flexible procedures and low cost in solving the nuclear damage compensation in the Fukushima nuclear accident.

## 6 ACTUAL PERFORMANCE OF ADR IN NUCLEAR DAMAGE COMPENSATION IN FUKUSHIMA NUCLEAR ACCIDENT

According to the statistics of the Report on the Activities of the Dispute Resolution Center for Nuclear Damage Compensation published in March 2020, the scope of applying for nuclear damage compensation from the original compensation center includes: refuge expenses, life and body damage, mental damage, business damage, labor damage, inspection expenses, loss of financial value (including real estate-related affairs), pollution removal expenses, etc. The industries applying for compensation include: agriculture, forestry and aquaculture, manufacturing and processing, selling, construction, real estate, medical and service industries, etc.

By December 2020, Japan Nuclear Damage Compensation Center had accepted 26,407 cases for compensation, 25,692 cases were concluded and 715 cases were not concluded. Among the concluded cases, there were 20,562 cases of reconciliation, accounting for 77.8%; there were 2,228 cases of stopping the reconciliation procedure, accounting for 8.4%; There were 2,900 cases of reconciliation and withdrawal, accounting for 10.9%; The number of cases rejected by reconciliation is 1; One case did not use the settlement procedure [7].

### 7 ENLIGHTENMENT TO CHINA

With the development of China's nuclear industry from scratch, from small to large, the corresponding related systems have also experienced from scratch, from regulations to laws. The Nuclear Safety Law of the People's Republic of China (hereinafter referred to as the Nuclear Safety Law) implemented in 2008 established China's nuclear safety management system, defined the administrative responsibility for nuclear safety, stipulated the liability for compensation for nuclear damage, and designated the nuclear safety management institution. It can be said that the enactment of this law is a milestone progress in China's legislation in the field of nuclear safety, which lays a legal foundation and provides a legal basis for China's safe and stable use and development of nuclear energy.

However, China's "Nuclear Safety Law" only stipulates in Article 90 that "nuclear facilities operating units should bear the liability for compensation according to the state and the damage liability system", and the specific how to compensate and what is the way of compensation are not further clarified. That is to say, once a nuclear accident occurs, how should nuclear facilities operating units compensate the victims and through what channels the victims apply for nuclear damage compensation are not clearly stipulated in China's laws, and in this field, China's laws are still blank. Therefore, this gap should be filled in the legislation of the Law on Compensation for Nuclear Damage, and the specific ways of compensation for nuclear damage should be made clear. In this part, we can refer to Japan's atomic energy damage compensation method, and consider using ADR in nuclear damage compensation from the professional, rapid and low-cost point of view.

For example, after the Fukushima nuclear accident on March 11, 2011, Japan quickly established the Nuclear Damage Compensation Dispute Resolution Center. This administrative agency relies on ADR, an alternative means, to deal with compensation for nuclear damage caused by Fukushima nuclear accident.

Although litigation is considered as the fairest means to solve disputes in contemporary society, once entering the litigation link, we must consider the time cost and money cost. For atomic energy victims who suffer physical and mental trauma, it is undoubtedly worse to let them spend a lot of money and time to fight for the compensation they deserve. After fully considering all kinds of inconveniences that litigation may bring to the victims of nuclear damage, Japan boldly uses ADR as a non-litigation dispute resolution method, simplifies the trial procedure of nuclear damage compensation, and appoints scholars, lawyers and other legal professionals to put forward professional reconciliation suggestions according to the application of the parties on the basis of investigating the facts, so that the victims can get due compensation quickly in a short time, which is undoubtedly worthy of reference from other countries in the world, and at the same time, it also provides a reference model for the concretization of nuclear damage compensation methods in China.

That is to say, in the legislation of nuclear damage compensation, under the premise of fully considering the particularity of nuclear damage, China should establish an institution that uses non-litigation dispute resolution mechanism to deal with nuclear damage compensation, and at the same time, actively reserve relevant legal professionals related to nuclear damage compensation for the smooth operation of this institution in case of emergency.

In addition, other aspects of Japan's nuclear damage compensation system also have important reference value for China, such as:

(a) Clarify the legislative purpose and define the concept of nuclear damage

To enact a law, we must first clarify its legislative purpose, why we should enact the Nuclear Damage Compensation Law, what is the purpose and significance of enacting this law, which must be clear.

For example, in Article 1 of Japan's Nuclear Damage Compensation Law, it is clearly pointed out that "protecting victims" and "promoting the healthy development of nuclear undertakings" are the purposes of enacting this law. That is to say, Japan's Nuclear Damage Compensation Law starts from the premise of protecting victims, and thus adopts the principles of no-fault liability, centralized liability, unlimited compensation, damage compensation measures (compulsory insurance measures) and state aid and rescue policies, thus forming Japan's unique and damage compensation system.

Secondly, since it is compensation for nuclear damage, the concept of what is nuclear damage must be clear. However, China's Nuclear Safety Law does not give a clear definition of "nuclear damage", let alone the scope of nuclear damage. Therefore, when formulating the Nuclear Damage Compensation Law, China must clarify the concept of nuclear damage and define the scope of nuclear damage.

For example, Japan clearly stipulates in Article 2, Item 2, of the Nuclear Damage Compensation Law that "nuclear damage refers to damage caused by radiation and heat caused by nuclear fission, and damage caused by radiation and toxicity of nuclear fuel substances." At the same time, Japan clearly pointed out that in the case of nuclear facilities accidents and refuge due to administrative emergency measures, the loss of business suspension or business when work or business activities are interrupted due to refuge and other reasons, the cost of inspecting radioactive substances such as people or property pollution, and the loss of wind assessment caused by non-polluted agricultural and aquatic products and other related production and business are also nuclear damage.

It can be seen from this that when defining the scope of nuclear damage, Japan not only takes into account the damage caused by the nuclear facility accident itself, but also takes into account the losses caused by stopping business activities due to refuge and other reasons, the losses caused by sewage discharge, and the losses caused by uncontaminated products due to poor wind assessment and unsalable sales. This point is worth learning from in our country.

(b) Establish the principle of compulsory insurance and refine the national assistance and assistance policies

As we all know, once nuclear damage occurs, the scope of damage involved will be huge, and its loss may not be measured by money to some extent. However, as for the damage that has already occurred, money has to be used as compensation or compensation, so the amount of this money is undoubtedly very huge. If the operator of a nuclear facility is liable for huge damages without ensuring damages alone, he may go bankrupt due to insufficient funds, in which case the victim may not be compensated

for damages. Therefore, how to ensure that the operators of nuclear facilities can have sufficient capital reserves, and when nuclear damage occurs, the victims can get due compensation smoothly will be a problem that countries developing nuclear undertakings must consider, and it should not be overlooked that this "sufficient capital reserve" must be mandatory in order to be prepared for emergencies.

Our government has also taken this into account. Article 90 of the Nuclear Safety Law stipulates that "nuclear facility operators should make appropriate financial guarantee arrangements by taking out liability insurance and participating in mutual assistance mechanisms to ensure timely and effective performance of nuclear damage compensation liability". However, according to the above-mentioned legal provisions, it can only be said that our government has considered "sufficient capital reserve", but has not made mandatory provisions to ensure "sufficient capital reserve", because the Nuclear Safety Law does not set mandatory provisions for "sufficient capital reserve", but only makes "general" provisions, such as "taking out liability insurance", "appropriate financial guarantee arrangements", etc. These terms do not reflect the principle of "mandatory". Therefore, in order to ensure that nuclear facility operators have "sufficient financial reserves" to compensate victims when nuclear damage occurs, mandatory provisions should be added when the Nuclear Damage Compensation Law is enacted to ensure that nuclear facility operators have "sufficient financial reserves". This kind of compulsory measures can be realized through compulsory insurance measures and state compensation. For this point, China can learn from Japan's Nuclear Damage Compensation Law and Nuclear Damage Compensation Contract Law.

Japan has made mandatory provisions for nuclear business operators to join nuclear damage liability insurance contracts in Article 8 of the Nuclear Damage Compensation Law; Article 10 of the Law on Compensation for Nuclear Damage and Article 2 of the Contract Law on Compensation for Nuclear Damage respectively make mandatory provisions for nuclear business operators to sign compensation contracts with the state, which are to ensure that the state compensates nuclear business operators when insurance cannot pay or exceeds the amount of insurance compensation, so as to ensure that victims can get due compensation smoothly.

#### (3) Regular repair of laws

Japan's nuclear damage compensation system was born in 1961. In order to cope with the environmental changes related to nuclear energy, the Japanese government reevaluates the nuclear damage compensation system almost every 10 years [8]. For example, the Nuclear Damage Compensation Law enacted in 1961 was amended five times in 1971, 1979, 1989, 1999 and 2009 respectively. It is precisely because of this amendment that Japan's nuclear damage system can handle the crisis in time and properly after the Fukushima nuclear accident and help the victims tide over the difficulties. Therefore, it is worth learning from our country to repair the original system regularly.

The Fukushima nuclear accident is undoubtedly a "once in a hundred years" disaster for Japan. However, due to its good compensation system and a series of subsequent legislation, Japan can quickly provide protection for the victims after the Fukushima nuclear accident and effectively do a good job in the aftermath, which is obvious to all.

Therefore, it can be said that Japan's nuclear damage compensation system is constantly developing in practice, and it is a system demonstrated by practice.

Although China and Japan have different national conditions, it is believed that both China and Japan should start from the perspective of protecting victims for nuclear damage compensation. Under this consensus, Japan's nuclear damage compensation system is of great reference value to China's legislation of Nuclear Damage Compensation Law.

On the 60th anniversary of the founding of China and its industry, pointed out that "we should adhere to safe development, innovative development, peaceful use of nuclear energy, comprehensively enhance the core competitiveness of the nuclear industry, and continue to write a brilliant chapter of China's nuclear industry" [9], and sincerely hope that China's perfect nuclear damage compensation system will become a shining note in the brilliant chapter of China's nuclear industry.

### 8 CONCLUSION

The practical application of ADR in the field of nuclear damage compensation in Japan is a successful attempt in the practical application of ADR in a new field. This attempt once again shows the world the rapidity, convenience and low cost of using ADE to resolve disputes.

Nuclear damage compensation is a topic that must be considered by nuclear countries. ADR is a flexible and convenient means of resolving disputes. The organic combination of the two provides new thinking and new paths for nuclear damage compensation. Japan's use of ADR in the field of nuclear damage compensation is a successful attempt. It provides a practical reference for the application of ADR in the field of nuclear damage compensation. It not only opens up a new way of nuclear damage compensation, but also opens up a new field of ADR use.

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