

Outline of Judgment on Claim for Injunction on  
Operation of No. 3 and No. 4 Units at Ohi Nuclear Power Plant

Fukui District Court, May 21 2014<sup>1</sup>

Main Text

- 1 The Defendant must not operate No. 3 or No. 4 Reactors at the Ohi Nuclear Power Plant, at 1-1 Aza Yoshimi, Oshima, Ōi-cho, Oi-gun, Fukui Prefecture, in respect of the relationship to each Plaintiff (166 persons living within the 250 km radius of the Ohi Nuclear Power Plant) listed in the Plaintiff List 1 attachment.
- 2 All of the claims of each Plaintiff (23 persons living outside the 250 km radius of the Ohi Nuclear Power Plant) listed in the Plaintiff List 2 attachment are dismissed.
- 3 Costs arising in relation to each Plaintiff in relation to paragraph 2 are to be borne by said Plaintiffs, and the remaining costs are to be borne by the Defendant.

Reasons

1 Introduction

It is appropriate that, if involved in a business whereby severe damage would be caused to the lives, health, and livelihood of many people should a serious accident occur, an organization should be expected to provide safety and a high degree of reliability in accordance with the size and extent of that damage. This is a reasonable social requirement and, given that personal rights having survival as the basis therefore have the highest value in all fields of law, be they public or private law, this should be the guiding principle for the interpretations made in this case.

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<sup>1</sup> Professional translation of formal summary of ruling from original Japanese for Greenpeace.

Interests relating to the life, body, soul, and lifestyle of an individual are fundamental to the individuality of each person, and the entirety of these can be considered to be personal rights. Personal rights are enshrined in the Constitution (Articles 13 and 25), are the foundation for people's lives, and under the laws of our country there are no rights that have greater value. Accordingly, when there is a risk of a tangible violation of a fundamental aspect of these personal rights, namely the personal right to protect life and maintain one's lifestyle, a claim can be made for an injunction against violating acts on the basis of these personal rights. Personal rights belong to each individual, but when the form of the violation has the characteristics of simultaneously violating the personal rights of many people, it stands to reason that the claim for an injunction there against is strong.

## 2 Fukushima Nuclear Accident

The Fukushima nuclear accident forced some 150,000 residents to evacuate and at least 60 people, including hospitalized patients, lost their lives in the evacuation process. It is easy to imagine that many more people have had their lives shortened as a result of their families being scattered and from having to live in difficult evacuation conditions. Furthermore, the Chair of the Atomic Energy Commission considered the possibility of issuing an evacuation advisory for residents in a 250 km radius from the Fukushima Daiichi Nuclear Power Plant, which is the same scale as the evacuation area for residents after the Chernobyl disaster.

There are various views about how much damage is done to people's health by how many millisieverts of radiation per year, and the size of the recommended evacuation areas differs depending on which view is taken, but the Ukrainian government and the Republic of Belarus which have continued to face this issue for over 20 years have large evacuation areas in place even now. Both governments have wanted to repatriate the residents as quickly as possible, and residents have the same strong desire to return home. This is no doubt no different from our own country. The fact that both these governments nevertheless had to take the aforementioned measures casts grave doubts on the legitimacy of an optimistic view of the health problems caused by radioactive material and from it the assertion that a minimum evacuation area is sufficient. The figure of 250 km

was merely an estimate made in a time of emergency, but that does not mean that this figure can be automatically judged as being excessive.

### 3 Safety that Should be Required of the Nuclear Power Station in This Matter

#### (1) Safety Required of Nuclear Power Stations

In light of the issues identified in 1 and 2, above, an extremely high level of safety and reliability must be required of nuclear power stations and thorough measures must be implemented in order to protect citizens from even the remote possibility of the danger from radioactive materials..

Nuclear power stations fulfill the important social function of producing electricity, however, since the use of nuclear power is limited to peaceful purposes (Atomic Energy Basic Act, Article 2) and, as a result, the operation of nuclear power plants as one means of producing electricity is legally associated with freedom of economic activity (Constitution, Article 22, Clause 1) and has a lower ranking in the Constitution than the central tenet of personal rights. Furthermore, it is difficult to imagine, outside of a large-scale natural disaster or a war, anything other than an accident at a nuclear power plant that could have the potential to cause a situation whereby these fundamental rights are extensively compromised. Even if it is considered too extreme to argue that the very existence of an economic activity having such danger, even abstractly, is not permitted under the Constitution, it is natural for an injunction against the same to be allowed if the tangible risk exists, however remotely, of such a situation occurring. This is clear when contrasted to even claims in respect of the right to petition for the statement of interference or the right to petition for the prevention of interference, on the basis of land ownership, that are sustained if the fact of interference or the tangible risk of interference is found, without questioning the circumstances on the infringing party's side, namely whether or not the infringing party was negligent and the scale of the disadvantage to the infringing party incurred as a result of a claim being sustained.

Society would not continue to develop if latent risk were not permitted in new technology, therefore it is extremely difficult to determine in a court of law the propriety of an injunction

on the implementation of such technology, if the nature of the risk inherent in the technology or the scale of the damage that would be caused thereby is unclear. However, when the nature of the risks inherent in the technology and the scale of the damage caused thereby are established, safety commensurate with the nature of the risk and the scale of the damage is required when the technology is implemented, therefore a determination needs simply to be made as to whether or not this safety is maintained, and no turmoil arises as to whether or not social development would be hindered if a certain level of risk is not allowed. The true nature of the risks of nuclear power plant technology and the scale of the damage caused thereby have become eminently clear as a result of the Fukushima nuclear accident. The issue of whether or not tangible risk that would lead to such a situation exists, even remotely, at the power plant in question is a matter that should be determined in this case and to avoid such a determination, after the Fukushima nuclear accident, would be to abdicate the most important obligation imposed on the Court.

## (2) Relationship to Examination Based on Nuclear Reactor Regulation Law

The reasoning in (1) derives from the position and reasonableness, etc., of the personal rights under the legal system of our country, as outlined above, and is not affected by the form or content of the Nuclear Reactor Regulation Law or other administrative laws and regulations.

Accordingly, even if there is a provision whereby decisions are entrusted to the electric utility with regards to some of the issues related to safety of nuclear power plants under the new regulatory standards based on the revised Nuclear Reactor Regulation Law, determinations by the Court should extend to such matters also, and should do so, not from the perspective of conforming to the new regulatory standards in relation to matters subject to the new regulatory standards or from the perspective of the appropriateness of the Nuclear Regulation Authority's examination of conformance to the new regulatory standards, but on the basis of the reasoning in (1).

Nuclear power plant technology has the following special characteristics: namely, because the total amount of energy generated at a nuclear power plant is enormous, even after a plant has been shut down, nuclear reactors need to be cooled continuously by using electricity and water; simply losing power for several hours during that time leads to an accident; and once an accident occurs, it worsens with the passage of time. These constitute an inherent and intrinsic danger in the case of nuclear power plants that differs from most other technologies, where most of the causes of the spread of damage can be removed by the simple act of stopping operation.

Accordingly, if an earthquake occurs that may lead to facility damage, operation of the facility must be quickly shut down, the nuclear fuel must continue to be cooled by water, by using electricity, even after shutdown, and radioactive material must be prevented from leaking outside the power plant site even under the remote circumstance in which extraordinary events occur. These three steps of shutdown, cooling and containment need to all be in place before the safety of a nuclear power plant can be ensured. If, for example, the plant was not able to be stopped, damage and malfunctions caused by even a slight earthquake could lead to a catastrophic accident. Operation of the plant was able to be stopped during the Fukushima nuclear accident, but cooling was not possible so radioactive material was discharged externally. In addition, in Japan the safety of nuclear fuel is considered to be ensured only when the fuel is enclosed in five wall layers and the most important wall among these is considered to be the nuclear reactor containment that has a highly robust structure.

However, the nuclear power plant in this matter has the following defects in the cooling function and in the encasing structure in the event of an earthquake.

## 5 Preservation of the Cooling Function

### (1) Earthquakes Exceeding 1260 gal

Nuclear power stations use a basic system whereby water is circulated by using an external AC current, for the cooling function after an emergency shutdown as a result of an earthquake. Earthquakes exceeding 1260 gal cause this system to collapse and it is nearly impossible for emergency equipment or a reserve means to compensate, which leads to a meltdown. The Defendant has admitted that there are almost no effective means that could be used if an earthquake of this scale were to occur.

It is a well-known fact that the Seismological Society of Japan has never been able to predict the occurrence of an earthquake of this scale. Earthquakes are a phenomenon that occur deep underground, therefore analysis of the mechanism of their occurrence must depend on supposition and conjecture, and argument about and verification of hypotheses must rely on past data because experiments cannot be performed. Earthquakes have certainly existed since ancient times and are phenomena that occur repeatedly, however they do not always occur frequently and reliable records are limited to those of recent times, which means there is very limited past data to rely on. Accordingly, it is essentially impossible to make a prediction based on reliable scientific evidence that an earthquake exceeding 1260 gals will not strike the Ohi Nuclear Power Plant. In fact, ① the greatest magnitude in the past recorded in Japan was 4022 gals during the Iwate–Miyagi Nairiku Earthquake and the figure of 1260 gals is far below this level; ② the Iwate–Miyagi Nairiku Earthquake was an inland crustal earthquake of the type that could occur at Ohi; ③ no significant difference is recognized in the frequency of earthquake occurrences between the Tohoku district which is where this earthquake occurred, the Hokuriku district where the Ohi Nuclear Power Plant is located or the adjacent Kinki district, and even the known active faults in the Wakasa region alone are numerous both on land and under the sea; and ④ given that the concept itself of the largest earthquake ever does not mean the largest earthquake in the world since history has been recorded, but merely the largest earthquake in Japan in recent history, the risk exists of an earthquake greater than 1260 gal affecting the Ohi Nuclear Power Plant.

## (2) Earthquakes exceeding 700 gals but less than 1260 gals

### a. Event tree claimed by Defendant

The Defendant claims to have anticipated the events that would occur if an earthquake of over 700 gals struck and have corresponding countermeasures in place. The Defendant has prepared an event tree listing these events and countermeasures, and claims that if the listed countermeasures are used in sequence, no damage will occur to the reactor core and no large-scale accident will occur in the case of earthquakes no greater than 1260 gal.

However, in order for these countermeasures listed in the event tree to be truly effective countermeasures, three aspects must all be in place: firstly, events connected to the causes of accidents resulting from earthquakes or tsunamis must be examined without fail; secondly, technologically effective countermeasures must be planned for these events; and thirdly, these technologically effective countermeasures must be able to be implemented in the event of an earthquake or tsunami.

b. Events listed in the event tree

Given that, during a serious accident, one event that occurs might lead to a new event or occurring events might overlap, it is extremely difficult to identify all the events that are connected to the primary cause of the accident.

c. Efficacy of Countermeasures Listed in Event Tree

Furthermore, even putting aside the question of whether or not the countermeasures listed in the event tree for the events are effective measures, the more serious an event is, once it occurs, employees of the nuclear power station cannot be expected to implement these measures appropriately and promptly amidst the confusion and agitation that such an event generates. In particular, the difficulty of doing so becomes even more evident in light of the following facts:

Firstly, the characteristics of earthquakes are such that they have the same probability of occurring during the night, when there are fewer employees present, as during the day. In reality, how well personnel can immediately respond to a sudden crisis situation and

whether or not the chief manager of the plant who serves as the center of the chain of command is on site are clearly significant factors.

Secondly, implementation of countermeasures from the event tree is premised on the ability to grasp what events have occurred but grasping the situation is in itself extremely difficult. The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission has poured energy into the analysis of the earthquake in relation to the causes of the Fukushima nuclear accident and has identified, by analyzing the time of the earthquake and the time of the tsunami and by interviewing employees, the possibility, in addition to the issue of external power supply, that damage was caused by the earthquake prior to the arrival of the tsunami and was directly connected to the accident. However, the Commission has not reached findings that would substantiate what kind of damage the earthquake caused at what locations, and what events were caused thereby. Generally, when an accident occurs, the cause of the accident is investigated, findings are made, and the safety of the technology is improved on the basis of those results, but in the case of nuclear power plant technology, once a major accident occurs there is an extremely high likelihood that the cause of the accident will remain unverified because the accident site cannot be entered, and in the case of the Fukushima nuclear accident, there is no guarantee that the cause will ever be verified. Similarly, and even more so, while an accident is in progress at a nuclear power plant, it is difficult to grasp what damage has occurred where and what events are being caused thereby.

Thirdly, even if, for argument's sake, the events that have occurred have been identified, it can be assumed that there would be an extremely large number of matters that need to be dealt with, such as damage at multiple locations, at the same time as the loss of external power supply caused by the earthquake. On the other hand there is little time available because there is just over five hours between loss of all AC power supply and the start of damage to the reactor core, and once damage to the reactor core has started less than two hours remain until meltdown begins.

Fourthly, some of the measures that need to be implemented are measures that, by their very nature, are only implemented out of necessity during an emergency, and do not lend themselves to regular drills or trial runs. An external power supply is relied on to cool



nuclear reactors during a shutdown, and although water-cooled emergency diesel generators, air-cooled emergency generators, and vehicle-mounted electricity generators are said to be in place for emergency situations, there is no possibility of, for example, performing a test to find whether the air-cooled emergency generators alone can actually cool the nuclear reactors, because it would be too dangerous to do so.

Fifthly, it is conceivable that the system for the protective measures that should be taken can itself be damaged by an earthquake. If even only a portion of the emergency water inlet channel that extends for some hundreds of meters at the Ohi Nuclear Power Plant are damaged by an earthquake exceeding 700 gals, it can be assumed that all of the water-cooled emergency diesel generators that rely on the function of the emergency water inlet channel would no longer be able to operate. Furthermore, it can be assumed that it would be impossible or at least extremely difficult to move what can be said to be the last-resort means for cooling, the vehicle-mounted generators, because of the backfilled soil sections having become uneven due to the earthquake.. Using the identified points above as an example, multiple pieces of equipment could be expected to fail at the same time or in succession after an earthquake, given the nature of machinery, therefore the provision of multiple pieces of preventative equipment cannot be considered to greatly improve safety in the event of an earthquake.

Sixthly, if a portion of the radioactive material has actually been leaked, that site cannot even be approached.

Seventhly, there are a limited number of roads that lead to the Ohi Nuclear Power Plant site, and support from outside the facility cannot be expected.

#### d. Reliability of Basic Earthquake Ground Motion

The Defendant claims that when active faults in the vicinity of the Ohi Nuclear Power Plant are considered on the basis of research results for those active faults, the maximum number of gals that can be deduced using seismological logic is 700 and it would be unthinkable for an earthquake greater than 700 gals to occur. Rather than deliberating the

appropriateness and accuracy of numerical calculations based on this logic, it is only natural to attach importance to the fact that earthquakes exceeding the anticipated earthquake ground motion have occurred five times, at four nuclear power plants at the fewer than 20 nuclear power plant sites, in the period of less than 10 years since 2005. The reason for the repeated errors in earthquake prediction is a matter to be resolved through future scientific research and is not a matter that this Court needs to make a finding on. All these examples serve to show the limits of human capabilities in the face of natural events such as earthquakes. The earthquake-related assumptions for the nuclear power plant in this matter have been undertaken on the basis of records of past earthquakes and on the basis of examination and analysis of nearby active faults in fundamentally the same way as the above four nuclear power plants. No basis can be found which would indicate that the Defendant's earthquake assumptions are the sole reliable assumption.

e. Margin of Safety

The Defendant claims, on the premise that no damage occurred to important safety facilities at nuclear power plants as a result of the five example earthquakes discussed in this matter, that because there is a margin of safety or a safety tolerance at nuclear power plant facilities, even if an earthquake exceeding the basic earthquake ground motion did occur, no immediate risk of damage to important safety equipment would occur.

According to the overall gist of the pleadings, generally when facilities are being designed, the design provides a margin that does not simply meet the required standards but exceeds the standards many times over, because issues of variation in the material quality for various structures and uncertain elements such as good or bad welding or maintenance management come into play. However, even if designed in this way, safety of equipment cannot be guaranteed in the event that the standards are exceeded. Of course equipment may not be damaged even if a load exceeding the standards is applied, but this merely means that the uncertain elements referred to above were relatively stable, and is not the result of safety having been guaranteed.

Accordingly, even if it is established as fact that, for example, in the past nuclear power generating facilities withstood an earthquakes exceeding the basic earthquake ground motion, that fact does not provide any basis for the claim that in the future equipment would not be damaged if an earthquake exceeding the basic earthquake ground motion were to occur at the Ohi Nuclear Power Plant.

b. Loss-of-Power-Supply Accidents

The spent nuclear fuel pool in this matter can no longer maintain the submerged state after less than three days from when AC power supply is completely lost. Even though the damage resulting would be so great that it would affect the continued existence of our nation, a critical situation would be reached in less than three days after the total loss of AC power supply,. Such material is being left without being contained within highly robust equipment, in other words, as it were, in a naked state.

(4) Summation

It must be stated that the measures that are in place have been based not on a view that the safety of our citizens should be given priority above all else, but on the view that serious accidents only occur very infrequently and that the provision of strong equipment to encase the spent nuclear fuel would incur a colossal expense given that spent nuclear fuel is created on a daily basis by the operation of the nuclear power plant in this matter.

7 Current Safety at this Nuclear Power Plant

As seen above, from the perspective of protecting personal rights that have as the foundation therefor the survival of our citizens from the dangers of radioactive material, not only does doubt remain about whether or not the safety technology and equipment at this nuclear power plant are flawless, but rather, it must be admitted that said safety technology and facilities are vulnerable and could only be conceived of based on an optimistic view for which there is no substantive basis.

## 8 Other Claims by the Plaintiffs

The Plaintiffs claim risks having a variety of causes, and claim, e.g., that the function for stopping the plant when an earthquake has occurred is defective at this nuclear power plant. However, these claims of risk are interpreted as selective claims, therefore no determination is required in relation to same. The claims on the basis of environmental rights are also selective, and therefore, similarly, no determination is required in relation to the veracity of these claims.

The Plaintiffs claim as reasons for an injunction the lack of a decision about where the high-level radioactive waste will be disposed, the extremely high risks of said waste, and the burden of this disposal issue on future generations given that several tens of thousands of years are required before the risks disappear. In relation to this morally most serious of issues, namely the responsibility of people of our generation to the people of future generations, there is doubt that the Court hearing an injunction application on the basis of the current legal rights of our citizens has the qualifications to determine this issue, but the finding is that, on the basis of the explanation provided at 7, no determination is required regarding this..

## 9 Other Claims by the Defendant

On the other hand, the Defendant claims that the operation of the nuclear power plant in question leads to stable power supply and reduced costs, but it is not legally legitimate for this Court to take part in the argument that compares rights relating to the very survival of an extremely large number of people to the issue of whether electricity costs are high or low, or to make a determination about the merits of said argument. There is an argument about the outflow or loss of national wealth in relation to this cost issue. However, it is the view of this Court that even if a large trade deficit occurred as a result of stopping the operation of this nuclear power plant, this should not be considered an outflow or loss of national wealth. This Court considers national wealth to be the rich land and the people

livelihoods that have taken root there, and that being unable to recover these is the true loss of national wealth.

Furthermore, the Defendant claims that the operation of the nuclear power plant is excellent from an environmental perspective because of the contribution to reducing CO2 emissions. However, the environmental contamination incurred if one serious accident occurs at a nuclear power plant would be horrific and it would be seriously ill-founded to use environmental concerns as the basis for continuing operation of a nuclear power plant, in light of the largest ever pollution and environmental contamination in the history of our country having been caused by the Fukushima nuclear power plant accident.

## 10 Conclusion

On the basis of the above, the Court rules that there is tangible risk that people (each Plaintiff listed in the Plaintiff List 1 attachment) living within a 250 km radius of the Ohi Nuclear Power Plant will have their personal rights directly infringed by the operation of the nuclear power plant in this matter. Therefore, the claims of these Plaintiffs should be sustained.

Fukui District Court – Civil Section 2

Presiding Judge: Hideaki HIGUCHI

Judge: Akihiiko ISHIDA

Judge: Yoshiko MIYAKE





