

***Preliminary informal English translation***

*(This document was issued by the Fukui District Court, Fukui Prefecture on 14 April 2015.)*

**2014 (Heisei 26) ( ㉮ ) No. 31 Petition Seeking a Provisional Disposition  
Order for an Injunction Barring Operation of Takahama Nuclear Power  
Station Units 3 and 4**

**Main Text**

1. The defendant must not operate the Takahama Nuclear Power Station Units 3 and 4 reactors located at 1 Tanoura, Takahama Town, Ohi County, Fukui Prefecture
2. The costs of the disposition litigation shall be paid by the defendant

**Summary of the Reasoning**

**1. Concerning earthquakes with basic earthquake ground motion over 700 gal**

Basic earthquake ground motion is the maximum earthquake that can be predicted to occur at a nuclear power station. To properly establish the basic earthquake ground motion is the foundation for securing seismic resistance safety of the nuclear power station, and, an earthquake which goes beyond the basic earthquake ground motion should never occur.

However, at the fewer than 20 locations of nuclear power stations nationwide, since the less than 10 years from 2005, earthquakes that surpassed the basic earthquake ground motion have occurred 5 times at 4 nuclear power stations. Just as the above 4 nuclear power stations, the estimation for earthquakes for the nuclear reactors in this court case is undertaken based on the method of investigation and analysis of past earthquakes and active faults in the vicinity. Grounds cannot be found for the defendant's claim that its own earthquake estimation is accurate for the two reactors in this case in spite of the fact there are no great differences in the defendant's own methods of evaluating active faults.

Moreover, Professor Kojiro Irikura, who is the proposer of this methodology for estimating the strength of earthquake ground motion based on the state of the active fault(s) has stated, when interviewed by a newspaper reporter, that, "It is sometimes thought that the basic earthquake ground motion obtained from calculation is the figure for the greatest tremor, but this is not the case." "I proposed a calculation method using scientific formulas, but there are plenty of earthquakes that diverge from the average. There are also times when the observation (of the earthquake) itself is mistaken." It is hard to find, for a nuclear power station that must be prepared for a remotely possible accident, the rationale for establishing a basic earthquake ground motion which is based upon the foundation of the image of a mean earthquake. These signify that basic earthquake ground motion has lost its reliability not only based upon track record, but also, upon logic.

If an earthquake were to occur that is greater than the basic earthquake ground motion, there is a danger that the facility will be damaged. In that event, with the difficulty of assessing the situation and various time restrictions, many difficulties will occur in order to terminate the situation, and it can be recognized that there is a danger of it developing to the point of core damage.

**2. Regarding earthquakes less than the basic earthquake ground motion of 700 gal**

The basic earthquake ground motion when operation commenced at the reactors in this case was 370 gal. This figure was raised to 550 gal, and under the reasoning that there was a safety margin, no fundamental seismic resistance construction was undertaken. It was raised again to 700 gal at the time the new regulatory standards were put in place. The basic earthquake ground motion should be the foundation for assuring the seismic safety of the nuclear power station, and the measure of simply only raising the figure for it is not societally acceptable, and is considered incompatible with the safety design ideology of the defendant.

The defendant has itself acknowledged that there is a danger of the outside power supply being cut off and main water supply being cut off due to damage to the main water supply pumps as a result of an earthquake of less than 700 gal, the basic earthquake ground motion. The basic status of the nuclear reactor should be that the cooling function be maintained by the outside power source and main coolant water supply. It can be thought that it is sound socially accepted general practice to consider these facilities to be of vital importance to safety and thus seek seismic resistance that is fitting for the function of facilities that undertake primary functions which are indispensable for securing safety. This court finds it very difficult to understand the defendant's claim that these facilities are not vital facilities for safety. The defendant claims that the design of the safety facilities at the reactors of this case is based upon the thinking of defense in depth. The understanding of the concept of defense in depth is that there is a preparedness by which even though the wall of the robust first defense may be broken through, there is a second and third wall behind it. However, with the first wall paltry, one is immediately faced with battling with one's boats burnt. This kind of preparedness is deviation from the important meaning of defense in depth.

The court therefore finds that there is a danger of core damage due to loss of coolant function as a result of an earthquake less than 700 gal which is the basic earthquake ground motion.

**3. Mid-Summary Concerning Maintenance of Cooling Function**

The Japanese archipelago is situated on the borders of 4 plates, and 10% of all earthquakes that occur worldwide occur here in the land space of our nation, and, areas free from earthquakes do not exist in this country. The defendant emphasizes the regional characteristic differences between the other nuclear power station sites where earthquakes have occurred which have gone beyond the basic earthquake ground motion, and, the Takahama nuclear power station. However, these regional characteristic differences themselves are uncertain, and, the court is of the view that these differences do not carry significant meaning in the big

picture, considering the grave situation as indicated above which face our country nationwide. It is simply merely an optimistic prospect lacking grounds to consider that severe earthquakes which have recurred outside nuclear power station facilities in various locations, and, earthquakes exceeding the basic ground motion which have occurred 5 times at nuclear power plant sites will not occur for the Takahama nuclear power plant station. Moreover, if indeed a serious loss of coolant function accident could occur, this danger is not a remote risk but goes far beyond that and is a realistic, imminent danger.

#### **4. Concerning Spent Nuclear Fuel**

In spite of the fact that spent nuclear fuel has the possibility of causing damage which could involve the very existence of our nation's continuation, it is not encased in a robust facility such as a containment. In addition to the enormous expenses required in order to obtain a robust facility which could shut in nuclear fuel, it is unavoidable to come to the conclusion that such a response to the issue is based upon the prospect that such a serious accident would probably only occur very rarely. It is not based on the judgment that the safety of the nation's citizens must take precedence above all. Also, the spent nuclear fuel pool's water intake facility is class B seismic resistance.

#### **5. Concerning Covering the Preservation Claim**

The weaknesses of this nuclear power nuclear power station in this case cannot be ameliorated without undertaking each of the following measures: 1. Reassess the standard for establishing the basic earthquake ground motion, and, increase greatly the basic earthquake ground motion. 2. Make the seismic resistance of both the external power source and main water intake S-class, in order make them capable of coping with the basic earthquake ground motion. 3. Encase the spent nuclear fuel in a robust facility. 4. Make the seismic resistance of the water intake facility for the spent nuclear fuel pool S-class. Also, the difficulty of grasping the situation in the event of an earthquake substantiates the necessity for the measurement equipment related to the spent nuclear fuel pool to be S-class. And, the danger that radioactive substances could bring to the central control room underlines the basis for the necessity of establishing a Seismic Isolation Building which has high seismic resistance ability and protective function against radioactive substances. In spite of all this, the new regulatory standards established by the Nuclear Regulation Authority do not include any of these points for regulation. With regards to the Seismic Isolation Building, although this facility is scheduled to be put in place, a grace period has been established for its implementation. However, since earthquakes occur absolutely unrelated to the plans or intentions of human beings, it is self-evident that there is no rationality for such a regulatory method.

In order for the Nuclear Regulation Authority to grant permission for a change in reactor installation, the nuclear reactor facility which is undergoing the application process must undergo a rational review process from the an expert technical standpoint, with the regulatory standards themselves also needing to be rational, the aim of which is to prevent even the remote possibility of serious damage which would cause grave harm to the life and body of the

citizens in the area of that nuclear power facility, etc. by making the nuclear power facility undergo a comprehensive review. (Japan Supreme Court, October 29, 1992, First Petty Bench Court Ruling, Ikata Supreme Court Verdict.) This then means that the rationality which should be required of the new nuclear regulatory standards is that they are understood to be very strict in content, and, if the nuclear power facility meets the standards' requirements, that it would then prevent even the remote possibility of grave damage. However, as indicated above, the standards are merely lax, and even if their requirements were met, the safety of the nuclear reactors in this case is not secured. The news regulatory standards lack rationality. As long as this is the case, it is not necessary to judge whether or not the nuclear power stations in this case meet the new regulatory standards, and since it is recognized that there is a concrete risk that the personal rights of the plaintiffs will be infringed, covering the claim that is to be preserved is recognized. It is recognized that the claim that is to be preserved should be covered.

#### **6. Concerning the Necessity of Preservation**

There is a danger that the plaintiffs will suffer irreparable damage as a result of an accident at the nuclear power station of this case, and, there is no time to spare to wait for the conclusion of the full lawsuit, and also, under the current situation where the Nuclear Regulation Authority has already granted permission for a change in reactor installation, the court also recognizes the necessity of preservation.

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*Translator's note:*

*Japanese original of this document:*

*<http://adieunpp.com/karisasitome/150414decabstract.pdf>*

*Full judgment:*

*<http://adieunpp.com/karisasitome/150414decision.pdf>*

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