

IN THE HIGH COURT OF JUDICATURE AT MADRAS

DATED : 31.08.2012

CORAM

The Honourable Mr. Justice P.JYOTHIMANI  
and  
The Honourable Mr. Justice P. DEVADASS

Writ Petition No.22253 of 2012

G.Sundarrajan

.. Petitioner

vs.

1. Union of India,  
rep. by the Secretary to Govt.  
of India,  
Dept. Of Atomic Energy,  
Anushakthi Bhavan,  
Chatrapathi Shivaji Maharaj Marg,  
Mumbai-1.
  2. The Chairman,  
Atomic Energy Regulatory Board,  
Niyamak Bhavan, Anushaktinagar,  
Mumbai-94.
  3. The Chairman and Managing Director,  
Nuclear Power Corporation of India Ltd.,  
Nambhkiya Urja Bhavan, Anushaktinagar,  
Mumbai-94.
  4. The Member Secretary,  
Tamil Nadu Pollution Control Board,  
Chennai-32.
  5. The Site Director,  
Koodankulam Nuclear Power Project,  
Koodankulam,  
Radhapuram Taluk,  
Tirunelveli Dist.
- ... Respondents

PRAYER: Writ Petition filed under Article 226 of the Constitution of India praying to issue a writ of Declaration, declaring that the clearance granted by the 2<sup>nd</sup> respondent Atomic Energy Regulatory Board for 'Initial Fuel Loading' [IFL] and 'First Approach to Criticality' [FAC] of Unit 1 of Kudankulam Nuclear Power Project [KK NPP] on August 10, 2012, mentioned in its Press Release

No.AERB/ITSD/PRESS/2012/03, dated August 10, 2012 is null and void.

For petitioner : Mr.M.Radhakrishnan

For respondents : Mr.Mohan Parasaran,  
Senior Counsel for  
Mr.A.S.Vijayaraghavan for R.1

Mr.R.Suresh Kumar [AERB]  
for R.2  
Mr.Krishnasrinivasan for  
M/s.Ramasubramaniam Associates  
for R.3 & R.5.  
Mr.A.Navaneethakrishnan,  
Advocate General, assisted by  
Ms.Rita Chandrasekaran for R.4.

O R D E R

[Order of the Court was made by P.JYOTHIMANI, J.]

The petitioner, who has filed two cases - W.P.Nos.24770 of 2011 and 8262 of 2012 in the earlier batch of Writ Petitions, has filed the present writ petition for a declaration that the clearance granted by the 2<sup>nd</sup> respondent Atomic Energy Regulatory Board for 'Initial Fuel Loading' [IFL] and 'First Approach to Criticality' [FAC] of Unit 1 of Kudankulam Nuclear Power Project [KKNPP], as stated in the Press Release, is null and void.

2. Heard the learned counsel on either side and perused the entire materials made available on record.

3. In the impugned Press Release dated 10.8.2012, the second respondent AERB has issued the above said clearance. During the course of arguments, the learned counsel appearing for the AERB has produced the original order dated 10.8.2012 which was given in the form of a Press Release. On a reference to the detailed order issued by the AERB, it is seen that the AERB, while passing such clearance, has referred to various communications numbering 13. The operative portion of the order of clearance granted by the AERB states as follows:

"Based on the above, Clearance for Initial Fuel Loading for KK NPP Unit# 1 is granted subject to compliance with various stipulations as brought out in Annexure.

First Approach to Criticality [FAC] for KK Unit #1 shall be taken up only after satisfactory review of results of the tests to be conducted post-IFL during reactor heat-up and Clearance is obtained from ACPSR/AERB.

This Clearance for Initial Fuel Loading for KK Unit #1 is valid for a period of six months [i.e. upto February, 2013]."

4. The petitioner has challenged the Press Release on various grounds. Mr.M.Radhakrishnan, learned counsel appearing for the petitioner would categorise the legal grounds raised by the petitioner as follows, namely that the AERB, before passing the impugned order dated 10.8.2012, has not chosen to expose the various references numbering 13 and their contents, with the result, it is not known as to whether the AERB has applied its mind in respect of those communications in their proper perspective before passing the impugned order; and that the AERB, in the earlier proceedings, in the form of a counter affidavit filed by the Secretary, AERB on 5.6.2012, in paragraph No.12, has given a categoric undertaking that the requirements as per Annexure 8 of the AERB's notification will be followed in true spirit, however, in the impugned order, there is nothing to show that such application of mind and satisfaction of the AERB about the compliance of the 17 requirements as per Annexure 8 has been made, and therefore, according to him, the clearance granted by the AERB for the purpose of Fuel Loading in respect of Unit I cannot be said to be in accordance with the recommendations of the AERB itself.

5. It is his contention that the AERB's recommendation itself is significant in the sense that the recommendations were culminated based on the Fukushima disaster and therefore, the Government and various Agencies, in order to have the safety measures to be adequately provided, having seen the experience in Fukushima disaster and Chernobyl, have to ensure that each and every one of the 17 requirements are meticulously followed by the Nuclear Power Corporation of India Limited, Mumbai (in short "NPCIL").

6. Mr.M.Radhakrishnan, learned counsel appearing for the petitioner would vehemently contend that in the counter affidavit filed by the AERB, it is stated that in respect of 17 requirements, some of the requirements are stated to have been complied with. It is submitted that while few of them require compliance within a short term period viz., 6 months, some other recommendations require a long term period of two years for the purpose of compliance. Therefore, according to him, even assuming that these 17 requirements require a time bound compliance, it is the duty of the AERB to wait till the compliance of the entire requirements before issuing the order of Fuel Loading and inasmuch as in the counter affidavit, the AERB, has in categoric terms accepted that some of the requirements out of the 17 as per the earlier AERB Regulations have not been complied with, the Press Release authorising Fuel Loading by the AERB to NPCIL is to be set aside.

7. It is also his submission that the documents which are referred to in the Press Release as well as the impugned order of the AERB dated 10.8.2012 have not been produced either to the parties before the court or to the Court itself so as to enable the Court to satisfy about the compliance. It is his submission that these are the requirements which are necessary to be disclosed at least to the Court in the public interest since every one of the public is entitled to know especially after the Fukushima disaster that the safety measures have been adequately followed. He has also brought to the notice of the Court some other latest news reports about the functioning of the Nuclear Projects wherein there has been some deficiency found and therefore, the clearance accorded by the AERB cannot be taken for granted.

8. On the other hand, Mr. R. Suresh Kumar, learned counsel appearing for the AERB, relying upon the counter affidavit filed on behalf of the AERB, has submitted that the 17 requirements given in Annexure 8 are not necessary ingredients for the purpose of starting a Nuclear Project or Loading Fuel and the 17 recommendations are only made with abundant caution to avoid any sort of accident as it took place in Fukushima. Simply because some of the requirements have not been complied with so far and NPCIL has given an undertaking to comply with the same, it does not mean that the AERB cannot itself be satisfied about the safety measures for the purpose of giving the clearance for fuel loading. It is also his submission that the AERB will compel the NPCIL to comply with some of the requirements which require some time and the petitioner need not suspect the conduct of the AERB in view of such undertaking.

9. The third respondent/NPCIL also undertakes to comply with the recommendations made by the AERB.

10. We have heard the learned counsel on either side and given our anxious thought to the issue involved in this case.

11. Today, in the batch of writ petitions in W.P.Nos.24770 and 22771 of 2011 etc., in which one of us [PJM] was a party, it is held that there is no impediment for the NPCIL to proceed with the project and safety measures have been satisfied and clearances have been obtained from various authorities. It is true that after Fukushima disaster, the Government of India, based on the recommendations of the International Atomic Energy Agency, and also various other countries world wide, including Pakistan, have held conferences on this issue, which has been extracted by us in the earlier judgment. The countries which are involved in installing Atomic Energy Projects must ensure all safety measures in the interest of the public, as any radiation released due to any disaster would adversely affect the public health. It was after a thorough study world wide regarding the Nuclear Power Projects, the AERB, through the Task Force, has framed the following safety assessments



which are found at Annexure 8 of the earlier report.

#### "Post-Fukushima safety Assessment

A Task Force [TF] constituted by NPCIL carried out safety assessment of KKNPP-1&2 in the light of Fukushima accident and its findings were reviewed by the AERB's Advisory committee on Project safety review of light water reactors [ACPSR-LWR] and the AERB committee on safety review of Indian NPPs in the light of Fukushima accident. Salient points emerging from the assessment and its reviews are given below.

- Back up provisions from alternate sources should be made for
  - Charging water to secondary side of SGs
  - Make-up of borated water to spent fuel pools
  - Injection of borated water in the reactor coolant system
- Seismic qualification of emergency water storage facility and augmentation of its storage capacity for core decay heat removal for a period of at least one week.
- Mobile self powered pumping equipment for emergency use
- Facility for monitoring safety parameters using portable power packs
- Finalization of emergency operating procedures for BDBA conditions
- Primary Containment to be assessed for ultimate load bearing capacity.
- Doors and barrels of airlocks to be qualified for proof test pressure
- Ensuring that highly active water used for cooling the core catcher vessel under BDBA is contained inside the primary containment
- Reconfirmation of design adequacy of hydrogen management system
- Environmental qualification of core catcher temperature monitoring system
- Adequacy of design provision for remote water addition to core catcher
- Adequacy of instrumentation for monitoring plant status during BDBA
- Details of margin available on location of various safety related SSCs above DBFL should be reviewed again.
- Need for design provision for containment venting, that has been deleted, should be re-examined.
- The backup sources for water injection to SG secondary side should be seismically qualified.
- Provisions for addition of water to core catcher require a detailed study, to ensure that there is no possibility of any steam explosion.
- Provision for additional backup power supply sources for performing essential safety functions, like air cooled DGs

located at a high elevation, should be considered." This is sought to be explained by the AERB in its counter affidavit stating that the recommendations made by the Task Force is not in respect of starting of the Atomic Project in KKNPP. In respect of KKNPP, site clearance, environmental clearance and various other clearances, including the construction of the plant, were obtained and completed much prior to the Fukushima accident, which took place on 11.3.2011. After that, the Experts' Study revealed that some more requirements are to be followed and it is based on that the above said recommendations have been given.

12. As we have elicited in the other judgement, there is ample difference between the Fukushima accident and the KKNPP and Chernobyl accident and KKNPP. It was found by the International Atomic Energy Agency that the failure of Fukushima Project is due to the human negligence and the choosing of the site which is close to epicenter [ i.e. 177 kms.], apart from the nature of construction put up near the seashore, whereas in respect of the KKNPP, it is clear that it is located 1500 kms. away from the nearest off-shore fault line (Andaman-Nicobar-Sumatra fault) capable of generating tsunami. Therefore, there is absolutely no possibility for both earthquake and Tsunami to happen simultaneously as it had happened in Japan. It is relevant to note that in the Fukushima accident, the magnitude of the earthquake that took place on 11.3.2011 at about 5.43.23 A.M. was 9.0 Mw; the depth of earthquake was 32 Kms and that was followed by tsunami and ultimately the emergency power supply was severely affected. Equally, the site chosen for the Fukushima Project was also not in accordance with site evaluation. We have also analysed in the other batch of writ petitions as to how the AERB and the Ministry of Environment and Forests have chosen the Site for KKNPP in a far away place from epicenter, even before the Fukushima accident took place. Therefore, the points raised by the second respondent in the counter affidavit as to the compliance of the requirements under Annexure 8 to the earlier report, as a matter of abundant caution, has to be accepted. However, it is stated by the AERB that it made recommendations on safety enhancements for the KKNPP for which NPCIL had submitted a Scheme and Schedule for implementation as part of Post-Fukushima safety enhancements. It is the duty of the AERB to ensure that these requirements are complied with by the NPCIL. It is seen in the counter affidavit that in respect of 17 recommendations, some of the recommendations have been fulfilled and some of them require a short term and some recommendations require a long term to comply with. They are as under:

Sr.#	Recommendations by AERB/SC/EE	Schedule for completion by NPCIL based on review and resolution by AERB
1	Back up provisions from alternate sources should be made for - Charging water to secondary side of SGs - Make-up of borated water to spent fuel pools - Injection of borated water in the reactor coolant system	A seismically qualified 8000 m3 tank as an alternate backup water source will be constructed [Short term]
2	Seismic qualification of emergency water storage facility and augmentation of its storage capacity for core decay heat removal for a period of at least one week	Seismic qualification of emergency water storage facility and augmentation as required will be done progressively [Short term]
3	Mobile self powered pumping equipment for emergency use	Provision of a mobile DG for emergency use will be made. [Long term]
4	Facility for monitoring safety parameters using portable power packs	Using mobile DG and battery backed-up portable measuring devices, safety parameters will be monitored. [Long term]
5	Finalization of emergency operating procedures forbdba conditions	EOPs for some PIEs has been made. Remaining are in progress. [Short term].
6	Primary Containment to be assessed for ultimate load bearing capacity [ULBC]	Based on design margins available, preliminary assessment shows that for primary containment, ULBC is at least 1.5 times DBA value. The detailed analysis for ULBC will be done progressively. [Long term]
7	Doors and barrels of airlocks to be qualified for proof test pressure.	The qualification of barrel and outer door of TAL has been carried out by design analysis and meets the requirement. Complied.



Sr.#	Recommendations by AERB/SC/EE	Schedule for completion by NPCIL based on review and resolution by AERB
8	Ensuring that highly active water used for cooling the core catcher vessel under BDBA is contained inside the primary containment	The required analysis is being carried out. [Long term]
9	Reconfirmation of design adequacy of hydrogen management system	Design adequacy of H2 management system has been reviewed and all aspects are addressed. Complied.
10	Environmental qualification of core catcher temperature monitoring system	The instrumentation for core catcher monitoring has been qualified. Complied.
11	Adequacy of design provision for remote water addition to core catcher	Water addition provision through hook up point already exists and is adequate. Complied.
12	Adequacy of instrumentation for monitoring plant status during BDBA	All important parameters of the plant during BDBA will be monitored. Provisions to extend power supply to these instruments will be implemented progressively [Long term]
13	Details of margin available on location of various safety related SSCs above DBFL should be reviewed again.	Margins have been reviewed and found adequate. Complied
14	Need for design provision for containment venting, that has been deleted, should be re-examined.	Existing design and procedures of KKNPP avoid containment over pressurization by having long term decay heat removal system. Complied.
15	The backup sources for water injection to SG secondary side should be seismically qualified.	Seismically qualified water storage tank of 8000 m3 capacity will cater to this requirement. [Short term]
16	Provisions for addition of water to core catcher require a detailed study, to ensure that there is no possibility of any steam explosion.	Existing design and procedures of KKNPP prevent possibility of steam explosion. Complied.



Sr.#	Recommendations by AERB/SC/EE	Schedule for completion by NPCIL based on review and resolution by AERB
17	Provisions of additional backup power supply sources for performing essential safety functions, like air cooled DGs located at a high elevation, should be considered.	Provision of a mobile DG will be made for performing essential functions. [Long term].

As AERB is an expert body, as held by the Hon'ble Apex Court, having been created under the Atomic Energy Act, 1962, it has got a statutory character and it consists of Scientists and experts and once such regulatory body requires compliance of 17 recommendations, we are of the view that it is not for the Court to look into that with suspicion. When the statutory body acts something in accordance with law, the presumption is always in favour of the Body unless it is established that there is a mala fide intention or illegality. On perusal of the 17 recommendations, we do not see any illegality on the face of it and in any event, this Court does not have any expertise to come to a conclusion as to whether these requirements are necessary either for the purpose of Initial Fuel Loading or for the purpose of its subsequent operation. When once the AERB, as an expert, has initiated all these measures, it is not for this Court to substitute its view with that of the regulatory body. Law is well settled that when two views are possible and the authority who is an expert has taken one view, it is not for the Court to substitute it with another view under any circumstance. In such view of the matter, we are of the view that the impugned Press Release does not warrant any interference by this Court and accordingly the writ petition is dismissed. It is made clear that as per the undertaking given by AERB, the recommendations which are to be complied with, are to be complied with by NPCIL in accordance with law and NPCIL shall scrupulously follow the same. No costs.

Sd/

Asst.Registrar

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Sub.Asst.Registrar

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To

- The Secretary to Govt.  
of India,  
Union of India,  
Dept. Of Atomic Energy,  
Anushakthi Bhavan,  
Chatrapathi Shivaji Maharaj Marg,  
Mumbai-1.

2. The Chairman,  
Atomic Energy Regulatory Board,  
Niyamak Bhavan, Anushaktinagar,  
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Chennai-32.
5. The Site Director,  
Koodankulam Nuclear Power Project,  
Koodankulam,  
Radhapuram Taluk,  
Tirunelveli Dist.

- 1 cc to Mr. M.Radhakrishnan, Advocate, Sr.No.52692
- 1 cc to Mr. R.Suresh Kumar , Advocate, Sr.No.52594
- 1 cc to Ms.Rita Chandrasekaran , Advocate, for TNPCB Sr.No.52569
- 1 cc to M/s.Ramasubramaniam Associates , Advocate, Sr.No.52748
- 2 cc to Mr.A.S.Vijayaraghavan , Advocate, Sr.No.52424

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