

Addendum to A Briefing  
Document on the Civil  
Liability for Nuclear Damage  
Bill, 2010: Questions of  
Constitutionality and  
Legislative Options Open to  
Parliament

Pre-Legislative Briefing Service (PLBS)

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## Clause 17: Right of Recourse

### *Introduction*

1. Clause 17, which provides a right of recourse for operators of nuclear establishments, reads as follows:

**“17. The operator of a nuclear establishment shall have a right of recourse where:**

- a. **Such right is expressly provided for in a contract in writing;**
- b. **The nuclear incident has resulted from the wilful act or gross negligence on the part of the supplier of the material, equipment or services, or of his employee;**
- c. **The nuclear incident has resulted from the act of commission or omission of a person done with the intent to cause nuclear damage.”**

2. Providing nuclear operators with the right to recourse in these three specified circumstances has given rise to several theoretical and practical concerns. The Honourable Committee is well aware of the political charge accompanying these concerns and the divisive views held by industry bodies on the one hand and several members of civil society on the other, which has seemingly given rise to an internal debate within the government, manifested in the DAE Secretary’s initial deletion of Clause 17(b) followed in oral hearing by its retraction.<sup>1</sup> In this brief addendum to our previous memorandum, we analyse both the principle as well as the practicalities relating to a right of recourse, suggesting key amendments to Clause 17 as it currently stands. To this end, we first, theoretically locate the right to recourse in the international civil nuclear liability regime to understand its historical rationale. Next, we undertake a comparative analysis of legislations in other countries and whether they conform to the international treaty regime in this regard or not. Third, we critically analyse all three sub-clauses of Clause 17 to ascertain whether they promote this historical rationale and the objects sought to be achieved by the Bill. Finally, we deal with the procedure and practicalities of how a right to recourse should operate, an aspect the Bill is currently silent about. On the basis of this four-part analysis, we suggest alterations and additions to Clause 17 as it currently stands.

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<sup>1</sup> “Government Backtracks on Nuclear Liability Change” *The Hindu*, June 15, 2010, available at <http://beta.thehindu.com/news/national/article458192.ece> (last accessed 19th July, 2010).

### ***Right to Recourse: Historical and Theoretical Understandings***

3. To understand the context in which the right to recourse was incorporated in the international treaty regime, it is necessary to briefly consider the concept of “legal channelling” of liability, which is the cornerstone of the regime and several national jurisdictions. Channelling of liability is a legal construct by which the person to whom liability is channelled is the only one from whom an injured party can claim compensation.<sup>2</sup> The international treaty regime relating to civil nuclear liability adopts a particular type of channelling mechanism known as legal channelling of liability. According to this understanding, liability arising from a nuclear incident is, by law, channelled to the nuclear operator.<sup>3</sup> Thus in the event of a nuclear accident, victims can only proceed against the operator, irrespective of the actual fact of who or what caused the accident. This was provided for in the original (unamended) Paris Convention in Article 3 as well as the original (unamended) Vienna Convention in Art III. In addition to strict liability on the operator, limitation of operator liability relating to amount and time, this principle of exclusive liability of the operator, based on legal channelling, were the pillars on which the international treaty regime was founded.<sup>4</sup>
4. It is necessary to recognise, that legal channelling of liability amounts to creating a legal fiction. This is because under general principles of tort law, liability for damage caused would be borne by the person who was at fault for the same. This person, in the case of a nuclear accident could be a supplier, a sub-contractor of the operator, or even an employee or a group of employees in certain situations. However by incorporating the principle of legal channelling, the operator was made solely liable for the damage caused. It is thus imperative to note that this concept is contrary to the traditional principles of tort law. Despite being a contrarian idea, a twofold rationale which was advanced for adopting this position: First, it would avoid lengthy litigation to establish who is liable and thereby simplify compensation for victims. Second, it would obviate the need for nuclear suppliers to take out insurance since the liability would be entirely borne by the operator.

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<sup>2</sup> Tom vanden Borre, “Channelling of Liability: A Few Juridical and Economic Views on an Inadequate Legal Construction” in *Contemporary Developments in Nuclear Energy Law* (Nathalie Horbach ed., The Hague: Kluwer Law International, 1999) p. 13.

<sup>3</sup> *Handbook on Nuclear Law* (Carlton Stoiber et al eds., Vienna: International Atomic Energy Agency, 2003) p. 112.

<sup>4</sup> For more on the foundations of the international treaty regime, see Norbert Pelzer, “Focus on the Future of Nuclear Liability Law” in *Reform of Civil Nuclear Liability Budapest Symposium Papers* (Nuclear Energy Agency, 1999) at p. 421.

5. The former rationale is certainly salutary. Legal channelling eliminates complications for the victim of a nuclear accident since, without determining the basis of fault and who caused a particular accident, he can proceed against the operator and claim compensation. The latter rationale, which was the key reason for its advancement however has been contested.<sup>5</sup> Authors suggest that legal channelling of liability does not, in fact, reduce costs.<sup>6</sup> Besides, by nullifying the liability of the supplier, it disincentivises the taking of safety measures by the supplier, thereby gravely endangering the nuclear establishment itself. The contrary view, that legal channelling prevents pyramiding insurance, reduces costs of suppliers thereby keeping the price of nuclear energy low, and is subject to the right to recourse under limited circumstances, has also been strongly advocated. As stated earlier, today it is a well-settled principle in international civil nuclear liability law.
6. Given the channelling of liability to the operator in case of a nuclear accident, the right to recourse is a limited exception to this principle. In order to make legal channelling effective, it was thus necessary to ensure that the right to recourse was limited to extremely restrictive circumstances. The rationale for having such a right in the first place was a concession to public policy requirements of countries, thereby allowing the operator to recover in circumstances wherein public policy demanded that the operator not be held liable. Two grounds were thus generally accepted as grounds for recourse in the drafting stage of the Vienna Convention: First, when recourse was contractually provided for, and second when the damage was caused by an “*individual*” (emphasis supplied) with the “intent to cause damage”. These broadly, though not entirely, correspond to the provisions in Clause 17(a) and Clause 17(c) of the Bill. A third ground was proposed by the delegates of Argentina, Brazil, India and the UAE. This ground allowed the operator to exercise the right of recourse,  
  
“...against any person who has manufactured materials or equipment for, or who has furnished materials, equipment or services in connection with the design, construction,

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<sup>5</sup> The Harvard Report, which was the most influential document leading up to the adoption of legal channelling suggested economic reasons of preventing pyramiding of insurance costs thereby benefiting nuclear suppliers as the primary reason for adopting legal channelling. See *International problems of financial protection against nuclear risk; a study under the auspices of Harvard Law School and Atomic Industrial Forum Inc.* (Cambridge, 1959).

<sup>6</sup> Tom vanden Borre, “Channelling of Liability: A Few Juridical and Economic Views on an Inadequate Legal Construction” in *Contemporary Developments in Nuclear Energy Law* (Nathalie Horbach ed., The Hague: Kluwer Law International, 1999) p. 13.

repair or operation of a nuclear installation, or who has transported or stored nuclear material, ***for fault of such person.***<sup>7</sup> (emphasis supplied)

This provision it is clear, *inter alia*, allowed for recourse actions against suppliers. It is also crucial to note that it used the word “person” as opposed to “individual” which would include both physical as well as corporate persons against whom recourse actions could lie. In discussions regarding this provision in the 17<sup>th</sup> Meeting of the Committee of the Whole, a clear distinction between views of North American and Western European delegations on the one hand and those of the rest of the world, on the other can be seen. Thus whereas the delegates of Brazil, Turkey, Greece, Philippines, Argentina, Colombia, Indonesia and Spain spoke strongly in favour of the proposition, the delegates of the USA, UK, Federal Republic of Germany, Netherlands, Canada and Switzerland spoke against it. The argument in favour of its inclusion were essentially legal, that the supplier could not be entirely absolved of fault-based liability whereas the argument against it was chiefly economic, as inclusion of such liability would double insurance costs and stifle the growth of industry. When it was put to vote, the motion for inclusion of this ground was defeated. It is curious to note that India which had sponsored the motion for inclusion, voted against it in the end,<sup>8</sup> its sudden *volte-face* epitomising the ambivalence of the Indian government, which has surprisingly continued till today, fifty years hence.<sup>9</sup>

7. Thus in the origins of the international civil nuclear liability regime the right to recourse was seen as a limited exception to the principle of legal channelling of liability, chiefly protecting nuclear suppliers. It would be available to the operator only in the limited circumstance when it was contractually provided for, or when the damage was caused owing to the act or omission of an individual who had intended to cause damage. Both these circumstances would be very rare, as the international experience with regard to right to recourse shows.

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<sup>7</sup> *Civil Liability for Nuclear Damage: Official Records* (Vienna, International Atomic Energy Agency, 1964) at p. 52.

<sup>8</sup> *Ibid.*, at p. 301.

<sup>9</sup> “Bhopal Effect: N-Liability Bill Remains Undiluted” *The Times of India*, June 16, 2010, available at <http://timesofindia.indiatimes.com/india/Bhopal-effect-N-liability-bill-remains-undiluted/articleshow/6052134.cms> (last accessed 19th July 2010); See also “Government Backtracks on Nuclear Liability Change” *The Hindu*, June 15, 2010, available at <http://beta.thehindu.com/news/national/article458192.ece> (last accessed 19th July, 2010).

## ***Comparative Provisions Relating to Recourse***

8. The significant international instruments on nuclear liability, namely, the Vienna Convention on Civil Liability for Nuclear Damage of 1963 and the Paris Convention on Third Party Liability in the Field of Nuclear Energy, of 1960 incorporate exclusive ‘channelling’ of nuclear liability on to the nuclear operator. That is to say, the operator of a nuclear installation is exclusively liable for nuclear damage on a no fault basis.<sup>10</sup> The instruments provide that no other person may be held liable for the nuclear damage. In practical terms, what this amounts to is that the supplier is not automatically liable for a nuclear incident even if such incident were to be caused by the supplier’s negligence. Thus having channelled liability on to the operator, the aforesaid international conventions allow the operator to proceed against the supplier for indemnifying them for the liability incurred, in limited circumstances. This right of indemnification is commonly referred to as the *right of recourse*. The conventions also provide that the operator may have such a right of recourse, without having to establish such intentional culpability, when there is a specific agreement to that effect between the operator and the supplier.

9. Thus, the bare text of Article X of Vienna Convention (both 1963 and 1997 versions) provides that

“The operator shall have a right of recourse only

- a. if this is expressly provided for by a contract in writing; or
- b. if the nuclear incident results from an act or omission done with intent to cause damage, against the individual who has acted or omitted to act with such intent.”

Article 6(f) of the Paris Convention has an identical effect:

“The operator shall have a right of recourse only:

1. if the damage caused by a nuclear incident results from an act or omission done with intent to cause damage, against the individual acting or omitting to act with such intent;
2. if and to the extent that it is so provided expressly by contract.”

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<sup>10</sup> In different jurisdictions different caps are placed on the operator’s liability and the Government steps in to make up the balance. This has been elaborated upon in detail in our earlier memorandum at paragraph 58.

## ***Channelling and Right of Recourse in National Legislations***

10. The channelling and right to recourse provisions set out by the above two conventions have by and large been used as a template for channelling and right to recourse provisions in the legislations of several countries, some of which have been signatories to the above conventions and others which have not been signatories. However some countries like Austria and USA have taken a very different approach to these issues from the stance adopted by the aforesaid conventions. The national legislations can thus be classified into the following categories on the aspect of channelling and right of recourse:

- i. Jurisdictions which replicate or slightly vary from the provisions of the Vienna and Paris Convention on the aspect of channelling and right of recourse
- ii. Jurisdictions which have altogether done away with legal channelling
- iii. Jurisdictions which water give greater right of recourse than provided for by the Conventions
- iv. Jurisdictions which give lesser right of recourse than provided for by the Conventions

### **i. Jurisdictions which replicate the provisions of the Vienna and Paris Conventions on the aspect of Channelling and Right of Recourse**

11. Some jurisdictions have incorporated the gist of the aforesaid conventions on the aspect of channelling of liability and right to recourse, without any significant alteration. An example is to be found in Section 5 of Japan's Act on Compensation for Nuclear Damage 1961. Though it largely replicates the Convention, it allows for recourse against third parties, which may or may not be individuals. The clause provides as follows:

#### *"Rights of recourse*

Where nuclear damage is covered by Section 3 and if the damage is caused by the wilful act of a third party, the nuclear operator who has compensated the damage pursuant to Section 3 shall retain a right of recourse against such third party. The provisions of the preceding



paragraph shall not prevent a nuclear operator from entering into a special agreement with any person regarding rights of recourse.”

12. The legal position in China is entirely similar to the Conventions. Article 9 of the Official Reply of the State Council to Questions on the Liabilities of Compensation for Damages Resulting From Nuclear Accidents provides as follows:

“If a written contract between an operator and another person provides for the right of recourse, the operator may, after compensating the victim, exercise its right of recourse against such person in accordance with the provisions of the contract. If a damage caused by nuclear accident is due to a natural person’s wilful act or omission, the relevant operator may, after compensating the victim, exercise its right of recourse against this natural person.”

**ii. Jurisdictions which have altogether done away with Legal Channelling**

13. Some States have been reluctant to accept the concept of legal channelling of liability altogether, because they feel that it is unjust or economically undesirable to exempt, suppliers from any liability whatsoever. Two rather different approaches to the elimination of legal channelling are provided by the legislations of Austria and USA.

14. **Austria-** At one point the Austrian law, following the Paris and Vienna conventions recognized the concept of legal channelling of all liability on to the operator. However, in the mid 90’s they rethought the concept. As Monika Hinteregger notes, the Austrian law makers felt that making the suppliers immune from any form of liability severely disincentivises them from taking measures for optimum accident prevention.<sup>11</sup> Thus in 1999 Austria enacted a fresh nuclear liability legislation , which significantly differed from the Paris and Vienna Conventions on the aspect of channelling and right of recourse. Hinteregger observes:

“In the course of this discussion, heavy opposition was raised against the principle of legal channelling as well. Although Austria has not yet ratified either the Paris or the Vienna

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<sup>11</sup> Monika Hinteregger “The New Austrian Act on Third Party Liability for Nuclear Damage” 35(1) *Denver Journal of International Law and Policy* (2006) at p.193.

Convention, the old Austrian law concentrated liability for nuclear damage exclusively on the operator of the nuclear plant. Combined with the operator's limited liability or limited resources, this inevitably meant a detriment to the legal position of the injured person that was unique in Austrian tort law. Furthermore, releasing every other person, especially the supplier of services or products, from liability, involves the risk of inducing these persons to reduce the level of care exercised...

Finally, the Federal Government and Parliament decided to completely break away from the approach toward nuclear liability law taken by the Paris and Vienna Convention. The outcome of this political process, the new Nuclear Liability Law, stands in sharp contrast to the basic principles of international nuclear law. Liability is unlimited in amount. Legal channelling is, to a great extent, eliminated and there is no exclusive jurisdiction, as is provided for by international nuclear liability law."

15. Section 16 of the Austrian Atomic Liability Act 1999 imposes concurrent liability for nuclear damage on the operator, carriers and the suppliers. Furthermore the Atomic Liability Act, in addition to holding the operator and liable on a no fault basis holds supplier and carriers concurrently liable on the principles of ordinary tort law and law relating to product liability. Thus this provision effectively does away with the concept of legal channelling altogether. Section 16(2) imposes just one restriction on the suppliers liability. The action of the injured person against the supplier of products or services to a nuclear plant, however, will be dismissed if the defendant can prove that an action against the operator will lead within a reasonable period of time to a decision and that this decision can be enforced.
  
16. **USA-** The legal provisions relating to channelling of liability in the USA have been exhaustively dealt with in the previous note and hence will not be dwelt upon in any great detail here. The American Price-Anderson Act operates on the principle of economic channelling. While it is the operator who is liable in the first instance, all suppliers and operators are under an obligation to contribute to a secondary insurance pool which can be relied upon to meet claims for damages exceeding a certain amount. The motivation of the economic channelling of the Price Anderson Act is to prevent a situation where those who have caused nuclear damage are immune to any form of liability.

**iii. Jurisdictions which give greater right of recourse than provided for by the Conventions**

17. Some jurisdictions like Hungary and South Korea proceed by incorporating the gist of the international conventions but try to expand it further by providing for supplier's liability in case of negligence. Thus in these jurisdictions not only is there a right of recourse against the supplier in case of a contract to that effect or in cases of wilfully causing damage but also in cases where the supplier has acted *negligently*. Such provisions effectively provide for a greater right of recourse against the suppliers than that provided for by the Paris and Vienna Conventions.

18. Section 55(2) of the Hungarian Act on Atomic Energy 1996 provides as follows:

“In the case of nuclear damage, the licensee has the right of recourse if:

a) this right has been expressly provided for in a written contract;

b) the nuclear damage is the result of a wilful destructive action or negligence, against a natural person acting or omitting to act with such intention.”

19. Article 4(1) of the South Korean Act on Compensation for Nuclear Damage 1969 (as amended in 2001) provides as follows:

“Where nuclear damage is caused by the wilful act or gross negligence of a third party, a nuclear operator who has provided compensation for nuclear damage in accordance with Article 3 shall have a right of recourse against such third party, provided however, that where the nuclear damage occurs due to the supply of material or services (including labour) for the operation of a nuclear reactor (hereinafter referred to as “supply of material”), the nuclear operator shall have a right of recourse only insofar as there has been a wilful act or gross negligence by the supplier of the materials concerned or by his employees.”<sup>12</sup>

Thus the legislation in South Korea and Hungary effectively imposes a fault-based liability on the supplier which can be enforced at the instance of the operator.

#### **iv. Jurisdictions which give lesser right of recourse than provided for by the Conventions**

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<sup>12</sup> It must be noted though that under Article 4(2) of the Act allows recourse to be trumped by a contractual provision between parties regarding recourse.

20. The legislation of some jurisdictions further circumscribes the right to recourse even more than the Paris and Vienna Conventions provide for. Section 30 (7) of the South African Nuclear Reactor Regulation Act 1999 restricts the right to recourse to cases where there is a contract to that effect between the supplier and the operator. Thus there is no right of recourse against any individual even in cases of wilful actions or omissions causing damage, as provided for by the Vienna and Paris Conventions.
21. The Canadian law circumscribes the right of recourse even more than the South African law does. The Canadian Nuclear Liability Act 1985 provides specifically that there will be no right of recourse in any situation. Section 10 of the Nuclear Liability Act 1985 reads as under:  
“Subject to this Act, an operator has no right of recourse or indemnity against any person in respect of his liability under this Act for any injury or damage attributable to a breach of the duty imposed on him by this Act.”
22. Some other jurisdictions like Armenia, New Zealand, Luxembourg and the Slovak Republic have no specific provision on the right of recourse. However given that nuclear liability statutes of these jurisdictions channel all liability to the operator and do not provide for recourse, it is arguable the legal position amounts to the same as is to be found in Canada. In other words, presumably, there is no right of recourse against the supplier in any of these jurisdictions.

### ***Critical Analysis of Clause 17***

23. We now turn to a legal analysis of Clause 17 of the Bill itself. The provisions of Clause 17 will be tested against the rationale for a right to recourse in the international civil liability regime as well as against comparative jurisdictions to assess its theoretical soundness and practical efficacy.

#### **a. Clause 17(a): Contractual Recourse**

24. This clause allows for right of recourse by the operator if it is expressly provided for in a contract in writing. This is identical to Art. X(a) of the Amended Text of the Vienna Convention, 1997 (“Amended Vienna Convention) and Article 10 (a) of the Annex to the Convention on Supplementary Compensation for Nuclear Damage (“CSC”). In this context, it

is an unexceptional position and in conformity with treaty law. However, it does little in terms of satisfying the public policy rationale for recourse. This is because the provision is merely permissive, allowing operators to exercise the right of recourse, provided they can successfully negotiate for the same in with the other contracting parties. In this sense, it does not further public policy but rather subjects it to the contingencies of specific contracts. Further, insofar as contracts between operators and suppliers are concerned, practice has shown that rarely is a contractual clause for recourse agreed upon by suppliers. This is because several bilateral agreements between countries clearly exclude such a possibility.<sup>13</sup>

25. On this basis, it can be stated that contractual provision for recourse, though legally possible, may not be practically implemented.

**b. Clause 17(c): Recourse based on “intent to cause damage”:**

26. This clause allows for recourse when the damage is caused by the act of commission or omission by a person who had the intent to cause damage. If this provision is closely analysed, then it will become clear that it is same in all respects with Art. X(b) of the Amended Vienna Convention and Article 10(b) of the Annex to the CSC, with one exception. Unlike the international treaties, which use the word “individual” Clause 17(c) uses the word “person”. This is a significant departure in the context of nuclear liability law. As the Brazilian delegate to the Committee of the Whole, at the drafting stage of the original Vienna Convention pointed out, usage of the word “individual” in Draft Art. VIII (later Art. X) does not allow recourse actions against legal persons such as corporations or firms.<sup>14</sup> Further, as the delegate from the Philippines added, recourse against an individual, as opposed to a person, would be illusory since an individual would have very limited financial resources to recourse for the compensation paid by the operator to the victim. However the word “individual” was retained in the treaty and finds place in subsequent treaties because recourse liability for suppliers and other corporations was sought to be specifically excluded, so as to underline the near-sanctity of the principle of legal channelling of liability and constrict recourse to the greatest extent possible.

27. Thus, by using the word “person” Clause 17(c) in principle, allows recourse actions against legal as well as physical persons. This is because, as the word “person” is not defined by the

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<sup>13</sup> For illustrative examples see Article III of the France-Russian Federation Agreement on Third Party Liability for Nuclear Damage Caused in Connection with Deliveries from the French Republic for Nuclear Installations in the Russian Federation (2000); See also Article 1 of the Germany-Russian Federation Agreement on Nuclear Liability in respect of Supplies Delivered from Germany to Nuclear Installations in the Russian Federation (1998).

<sup>14</sup> *Civil Liability for Nuclear Damage: Official Records* (Vienna, International Atomic Energy Agency, 1964) at p. 293.

Bill, the General Clauses Act, 1897 will operate. According to S. 3(42) of the General Clauses Act,

“(42) [P]erson” shall include any company or association or body of individuals, whether incorporated or not;”

Hence in principle, recourse actions against both physical and legal persons who have intended to cause damage are permissible under the Bill. However it must be noted that experts in the field have recognised the difficulty of proving intent to cause damage. Intent relates to a mental element and unless the situation is exceptional, marshalling evidence to prove that a person, physical or legal, intended to cause damage will be difficult. Like Clause 17(a), thus Clause 17(c) too constricts the right to recourse, rendering itself to be of merely symbolic value in the Bill, as is the case in the international treaty regime relating to civil nuclear liability today.

**c. Clause 17(b): Wilful act or gross negligence of supplier or his employee:**

28. This clause specifically allows recourse actions by the operator against the supplier of the material, equipment or services relating to the nuclear establishment, when nuclear damage has been caused by the supplier’s wilful act or gross negligence. This provision is not found in the Amended Vienna Convention or the CSC and significantly enlarges the scope of recourse actions and concomitantly reduces the sanctity of legal channelling of liability. It is based on the traditional tortious notion of damages based on fault, owing to gross negligence or wilfulness. According to news reports, this provision has caused significant concern, since it runs contrary to the international treaty regime and will require suppliers to take additional insurance, if they are to cover for the said fault-based liability, which may disincentivise supply to India or at the very least increase costs of nuclear energy significantly. On the other hand its significance for protecting victims’ rights, ensuring greater safety and the availability of greater compensation has equally been recognised. Both the arguments in favour of and against this provision need to be examined in greater detail.
29. First, the inclusion of this provision and its justification is contingent on a proportionality analysis regarding its economic concerns as well as concerns based on public policy. Insofar as its economic demerits are concerned, the decision to omit it in international treaties is suggestive of the fact that imposing such fault-based liability on the supplier leads to duplicating insurance, since the operator is already covered for the said amount. In the Bill, under Clause 8, the operator has to be financially secured for the maximum amount of liability to be borne by him. Requiring the supplier to be likewise secured in the eventuality

of a recourse action would be duplicating insurance for the same risk, thereby increasing costs of nuclear energy. This is the problem of pyramiding insurance which the international treaties expressly wished to avoid which is certainly a valid concern. Though the exact quantum of additional risk borne by the supplier and whether seeking insurance for the said risk would be prohibitive or not thereby disincentivising supply of nuclear energy to India is a matter for further economic analysis by the government. At any rate, it is to be noted that this provision is contrary to international business practice, where such fault-based recourse actions against the supplier are uncommon. **Specifically, if India wants to sign the CSC, as is suggested in the Statement of Objects and Reasons to the Bill, this provision presents an obstacle, since Art. 10 of Annex 1 of the CSC specifically allows recourse actions only on two grounds which are broadly comparable to Clause 17(a) and 17(c) of the Bill. Introducing an additional ground would thus present an anomaly obstructing the smooth accession to the CSC, should that be an objective the government persists with.**

30. The chief justification for the provision, on the other hand, is public policy. Like the delegates who moved for the inclusion of a similar ground in the original Vienna Convention, the rationale for seeking a recourse action against the supplier based on wilful act or gross negligence causing damage, is conformity with the traditional tortious liability principle of compensation for harm caused. Thus public policy demands that if a supplier is grossly negligent or wilfully causes damage which leads to nuclear damage, then he should be held liable for the same. Conformity with this legal principle thus overrides any economic concern to the contrary which may exist. Additionally, it can be argued that such recourse liability incentivises taking of safety measures by suppliers as well, and hence is beneficial to the overall safety of the nuclear establishment.
31. In assessing the comparative justifiability of this provision, it is hence necessary to balance the economic argument against it with the public policy argument in its favour. If analysed, both arguments contain substantial merit. Duplication of insurance is a matter of serious concern as evidenced by the fact that the international treaty regime has developed in a manner which avoids this eventuality. Equally, national public policy must be safeguarded as allowing suppliers to remain immune despite egregious negligent and wilful acts causing damage, would be anathemic to legal principle. As the provision currently stands, recourse actions by operators against suppliers are available when the supplier has wilfully caused damage or has been grossly negligent. Despite qualifying the negligence requirement, by

requiring “gross negligence”<sup>15</sup> this provision prioritises the legal principle over the economic argument, leading to a significant possibility of pyramiding insurance costs and raising the cost of nuclear energy.

32. **Before such a provision becomes law, we recommend that the Honourable Committee direct the government to justify on the basis of empirical, economic evidence, the fallout of this provision, both in terms of the extent to which rising insurance costs are disincentives for suppliers to supply nuclear energy to India, as well as the increased cost of nuclear energy as a result of such a provision. Without carrying out this analysis, it may be premature to prioritise the legal principle of tortious liability over the economic concerns regarding pyramiding insurance insofar as recourse by operators is concerned.**
33. At the same time, the Honourable Committee should also explore the possibility of extending the exercise of the right to recourse to the government. Currently, it must be borne in mind that though the supplier is made liable in case of negligence and wilful acts designed to cause damage, any such liability is restricted to the amount of Rs.500 Crores. Though the Bill does not specifically place this cap, the cap automatically and logically comes about because the operator’s liability is capped at Rs. 500 Crores and as it is only the operator who has the right to recourse against the supplier, he can only recover up to the maximum extent of his liability which is Rs.500 Crores. It must be borne in mind that the Government steps in to make good the damage above the amount of Rs.500 Crores in the event of a nuclear accident. However the Government has no right of recourse against the supplier even if the accident was caused due to the gross negligence or wilful act on part of the supplier.
34. We believe that keeping in mind the comparative assessment of the legal and economic concerns justifying a right to recourse by the operator against the supplier, in case of possible recourse actions by the government, the principle that the taxpayer should not be made liable for the fault-based liability of a nuclear supplier is a salutary principle. There is no principled justification for suggesting that the government, i.e. the taxpayers pay compensation in cases of nuclear damage which have been caused by a wilful act or gross negligence of the supplier. The viability of economic arguments regarding pyramiding of insurance, we believe, should equally be balanced with the principle that no person should take advantage of his own wrong and over and above that make the government pay for the

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<sup>15</sup> The meaning of gross negligence is well established in Indian statutes and precedent. For illustrative examples, see *Central Provinces Transport Services Ltd. v. Raghunath Gopal Patwardhan*, AIR 1957 SC 104; *State of Bihar v. B.C.L. Chaudhary*, AIR 1985 SC 285; *Poonam Verma v. Ashwin Patel*, AIR 1996 SC 2111.



same. Not taking this principle into account, would be tantamount to carrying the argument of pyramiding of insurance too far, hitherto unjustified by hard empirical data.

35. **On this basis, we recommend that the Honourable Committee,**

**a. Directs the government to proffer economic evidence regarding the actual threat caused by pyramiding of insurance and the extent to which costs of nuclear energy will, if at all, increase as a result of the said provision. This information will assist the Committee to come to a conclusion regarding whether the economic argument of insurance duplication should trump the public policy argument of holding a person liable for fault or vice-versa insofar as the operator's right to recourse against the supplier is concerned;**

**b. Explores the possibility of allowing a limited recourse action to the government against a supplier who by a wilful act or gross negligence has caused nuclear damage. The maximum amount of such recourse may be specified by the Committee at a reasonable level, which balances the economic interest of the supplier who will mandatorily require insurance for the same and the legal interest of the government in ensuring that the taxpayer is not made liable for the fault of a nuclear supplier.**

### ***Procedural Aspects of Operation of Right to Recourse***

36. Clause 17 is silent regarding the procedure which is to be followed in the operation of the right to recourse. Several questions arise as a consequence: Will recourse to a third party be pleaded by the operator in the same claims litigation by the victim against him? Alternatively, will it be litigated before the Civil Court? If the latter, then does Clause 35 create an obstacle in this regard? Finally, will Clause 17 override provisions of ordinary tort law under which recourse is available without restriction, according to a reading of Clause 46? We believe it is essential that these positions be clarified.

37. First, recourse actions are essentially actions by the operator to recover money *after he has already paid the said amounts to the victims*. Hence by its very nature it is an action subsequent to the primary claims litigation before the Claims Commissioner or the Nuclear Damage Claims Commission, as the case may be. In this regard, the placing of the clause relating to recourse in the Chapter IV of the Bill dealing with "Claims and Awards" is misleading. It suggests that the recourse action is to be brought before the Claims Commissioner himself, since every clause in the said section of the Bill deals with procedure before the Claims Commissioner. If this interpretation is upheld, we believe, it will create

serious delays in claims litigation. Tying the primary claim of the victim against the operator based on absolute and exclusive liability with the secondary recourse claim of the operator against a third party is contrary to the aim of speed and efficacy of disposal of claims, which is a mandate of the Bill. Further, if recourse actions are pursuant to Clause 17(b) or Clause 17(c) proving gross negligence, wilful act or an intent to cause damage will be extremely time-consuming requiring large amounts of evidentiary proof. It is expedient that this procedure for recourse is kept entirely separate from the proceedings before the Claims Commissioner. This interpretation is both theoretically justified, since a recourse action must be subsequent to the main claim and is also practically feasible since it will not delay compensation to the victims, which ought to be the paramount consideration.

38. Requiring such recourse actions to be tried in the ordinary Civil Court brings into question Clause 35 of the Bill. Clause 35 reads as follows:

“No civil court shall have jurisdiction to entertain any suit or proceedings in respect of any matter which the Claims Commissioner or the Commission, as the case may be, is empowered to adjudicate under this Act and no injunction shall be granted by any court or other authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act.”

Two aspects may cause concerns: (i) to what extent is the jurisdiction of courts ousted in relation to recourse actions and (ii) how does clause 35 relate to clause 9 and clause 46 of this Bill.

39. It is necessary to note that Clause 35 has two parts: the first part ousts from the jurisdiction of civil courts anything that the Claims Commissioner or Commission is empowered to adjudicate; the second part prevents *any* court from granting an injunction in respect of an action taken under this act, and is not strictly relevant for the present purpose.<sup>16</sup>

40. Many statutes have similar ouster of jurisdiction clauses that have been upheld by courts.<sup>17</sup> However courts have also limited the scope of such clauses. The Supreme Court has held that this ouster should not be easily assumed<sup>18</sup> and that there is a presumption against the

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<sup>16</sup> The reference to “any court” in the second part of Clause 35, has been held in an identical clause under the Telecom Regulatory Authority of India Act, 1997 to mean reference to “any Civil Court.” *Union of India v. Tata Teleservices (Maharashtra) Ltd.*, 2007 (10) SCALE 266.

<sup>17</sup> See for example: Section 53, Tamil Nadu Recognised Private Schools (Regulation) Act, 1973 in *Swamy Atmananda v. Sri Ramakrishna Tapovanam* [(2005) 10 SCC 51]; section 132 and section 133, Karnataka Land Reforms Act, 1961 upheld in *Ishwaragouda v. Mallikarjun Gowda* [(2009) 1 SCC 626]; Section 22 of the Sick Industrial Companies (Special Provisions) Act, 1985 upheld in *Bhoruka Textiles v. Kashmiri Rice Industries* [(2009) 7 SCC 521].

<sup>18</sup> *Swamy Atmananda vs. Sri Ramakrishna Tapovanam* (2005) 10 SCC 51.

ouster of jurisdiction.<sup>19</sup> In the case of *Balawwa v. Hasanabi*,<sup>20</sup> it was held that the jurisdiction of the Civil Court is ousted only in respect of such reliefs as could be granted by the Special Statute but not in any other respect. Specifically with reference to ousting the jurisdiction of the higher judiciary, it has been held (i) that writ jurisdiction cannot be ousted,<sup>21</sup> and (ii) that in the case of tribunals falling within the definition of Article 323B of the Constitution, the jurisdiction of the Supreme Court under Article 136 cannot be ousted.<sup>22</sup>

41. In the Bill, the actions which the Claims Commissioner and the Nuclear Damage Claims Commission are empowered to adjudicate are actions for compensation by those who have suffered nuclear damage.<sup>23</sup> These are actions where the operator is the defendant, as provided for by Clause 4. It is clear that recourse actions, where the operator is the claimant and a third party, the defendant [under contract in Clause 17(a), the supplier in Clause 17(b), and any person with intent to cause damage in Clause 17(c)] are not within the ambit of claims before the Claims Commissioner or the Nuclear Damage Claims Commission. Thus Clause 35, does not present an obstacle to litigating recourse actions before Civil Courts.

42. Thirdly, it is necessary to briefly consider recourse actions under Clause 17(b) and (c) of the Bill with actions for recovery under tort law. Normally, in the absence of such special legislation, the supplier would have been liable for damage caused to victims as a result of his own gross negligence or wilful act, according to the fundamental principles of tortious liability. Thus the operator could also claim compensation from the supplier for loss caused to him owing to the said action. However the Bill, which is a special legislation, provides specifically in Clause 4 that the liability for nuclear damage is affixed to the operator. Further, it limits actions for recovery under Clause 17 to three specific situations.

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<sup>19</sup> *LIC v R. Suresh*, 2008 (4) SCALE 512.

<sup>20</sup> (2000) 9 SCC 272.

<sup>21</sup> *L. Chandra Kumar v. Union of India*, [1997] 228 ITR 725 (SC).

<sup>22</sup> Article 323B, Constitution of India - (1) The appropriate Legislature may, by law, provide for the adjudication or trial by tribunals of any disputes, complaints, or offences with respect to all or any of the matters specified in clause (2) with respect to which such Legislature has power to make laws. (2) The matters referred to in clause (1) are the following, namely: (a) levy, assessment, collection and enforcement of any tax; (b) foreign exchange, import and export across customs frontiers; (c) industrial and labour disputes; (d) land reforms by way of acquisition by the State of any estate as defined in article 31A or of any rights therein or the extinguishment or modification of any such rights or by way of ceiling on agricultural land or in any other way; (e) ceiling on urban property; (f) elections to either House of Parliament or the House or either House of the Legislature of a State, but excluding the matters referred to in article 329 and article 329A; (g) production, procurement, supply and distribution of food-stuffs (including edible oilseeds and oils) and such other goods as the President may, by public notification, declare to be essential goods for the purpose of this article and control of prices of such goods; (h) rent, its regulation and control and tenancy issues including the right, title and interest of landlords and tenants; (i) offences against laws with respect to any of the matters specified in sub-clauses (a) to (h) and fees in respect of any of those matters; (j) any matter incidental to any of the matters specified in sub-clauses (a) to (i).

<sup>23</sup> Clauses 9 and 19 of the Bill.

43. The first segment of Clause 46, which states that, “The provisions of the act shall be in addition to, and not in derogation of, any other law for the time being in force...” suggests that the provisions of the Bill shall complement and not derogate from existing provisions of law in force, which includes tort law. However when these provisions are conflicting, Clause 46 is silent regarding the result. Instead, the result is dictated by a cardinal principle of statutory interpretation, well accepted in India, that a later special statute overrides the provisions of a prior general statute.<sup>24</sup> The Bill being a special statute regulating civil liability for nuclear damage hence overrides the general provision of tort law in this regard. Thus recourse actions under tort law are excluded by the present Bill.<sup>25</sup>
44. However the Bill cannot exclude, by its operation, the provision of constitutional law. As elucidated by our previous submission, the polluter pays principle has been enshrined in Art. 21 of the Constitution.<sup>26</sup> Thus, being a constitutional principle, it overrides statutory law. According to the principle of polluter pays, the damage caused due to pollution, to human beings as well as the environment, must be compensated entirely by the polluter as a measure to deter future recurrences. It is possible that when nuclear damage is caused owing to the fault of the supplier, i.e. the supplier is the polluter, the operator can take recourse to the polluter pays principle as interpreted by the Supreme Court and claim appropriate recovery from the supplier. This action, thus presents a possibility for effective recourse, beyond the statute, on the basis of the interpretation of Art. 21 of the Constitution. It is important to bear in mind the possibility of constitutional recourse, when dealing with these provisions.<sup>27</sup>
45. **On the basis of the aforesaid arguments we recommend to the Honourable Committee that the Bill specifically provides for recourse actions by the operator to be litigated before the ordinary Civil Courts and not before the Claims Commissioner or the Nuclear Damage Claims Commission. Of course, these actions would in no way affect the possibility of constitutional recourse under Art. 21, which would be contingent on the future interpretation of the polluter pays principle by the Supreme Court of India.**

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<sup>24</sup> *Justiniano Augusto v. Antonio Vicente*, AIR 1974 SC 989; *Harishankar Bagla v. State of Madhya Pradesh*, AIR 1954 SC 465. For an authoritative discussion on this issue, Justice G. P. Singh, *Principles of Statutory Interpretation* (10<sup>th</sup> edn., 2006) at p. 619-628.

<sup>25</sup> A further analysis of Clause 46 may be found in our original memorandum at paragraph 98.

<sup>26</sup> *Vellore Citizens' Welfare Forum v. Union of India*, (1996) 5 SCC 647; For more on the Supreme Court's interpretation of "Polluter Pays" see our original memorandum at paragraph 34.

<sup>27</sup> For a detailed analysis of Clause 46 and why it needs to be amended to categorically exclude tortious proceedings by victims in relation to nuclear damage suffered, against both the operator and the supplier, see our earlier memorandum at paragraphs 98-103.

## Comparative Analysis of Nuclear Sector Regulators in Other Jurisdictions

46. In our previous memorandum, we had suggested that the independence of the Atomic Energy Regulatory Board (“AERB”) is questionable, given its setting up under an executive order and the control exercised in its functioning by the Department of Atomic Energy. Further, currently all nuclear establishments are operated by the government itself, which creates a clear conflict of interest. We pointed out how entrusting the AERB with the task of notifying a nuclear incident as Clause 3 of the Bill does, would be akin to asking the regulator to admit its own failure, a most unwise state of affairs. In order to substantiate our submissions, we have undertaken a study of the nuclear regulators in major nuclear energy producing countries. Our results show that most have independent regulators, and the ones whose independence is questionable, also suffer from minimal conflict of interests since most operators in the said jurisdictions are private. On this basis we make an appropriate recommendation, which is contained at the end of this Part.
47. Following is a list of nuclear regulators in countries which have a substantial number of nuclear power plants. A cursory survey indicates that most countries prefer to regulate their nuclear sectors through independent statutory regulators in order to reduce a conflict of interest. Even in those countries where there is no statutory regulator, like Japan, it must be noted that the power plants are usually run by private operators and not Government companies as is the case in India. This automatically reduces the scope for a conflict of interest.
- (i) The United States of America: The nuclear power sector in the United States of America is regulated by the Nuclear Regulatory Commission (NRC), which has been established under Title II of the Energy Reorganization Act of 1974. This legislation provides for the basic functions of the Commission as also the appointment criteria of the members of the Commission by the President. All appointments necessarily require the consent and confirmation by the U.S. Senate. The President is empowered to remove any of the 5 members of the Commission on grounds specified in the Act. Prior to the creation of the Nuclear Regulatory Commission (NRC) the nuclear sector in the U.S.A. was regulated by the United States Atomic Energy Commission. The nuclear sector in the U.S.A. is therefore

regulated by an independent statutory regulator.

(ii) The United Kingdom: Under the Nuclear Installations Act of 1965 the Health and Safety Executive is the main body responsible for regulating the nuclear sector in the United Kingdom.<sup>28</sup> For its part the Health and Safety Executive is a body corporate created under the Health and Safety at Work etc. Act of 1974.<sup>29</sup> The Health and Safety Executive currently regulates the nuclear sector through its Nuclear Directorate (ND) & Nuclear Installations Inspectorate (NII). This regulatory mechanism is currently in the process of being revamped. Following a recent review of the regulatory mechanism it has been proposed in the U.K., in the year 2010, to setup a new statutory body called the Office for Nuclear Regulation which will be dedicated to regulating the nuclear sector.<sup>30</sup> The idea behind this legislation is to create a sector specific regulator. In the words of the U.K. Government: *"The intention is to create a modern, transparent and accountable regulator well placed to respond quickly and flexibly to its current and future regulatory challenges."*<sup>31</sup> The nuclear sector in U.K. is therefore independently regulated through Parliamentary legislation with further plans for reform.

(iii) France: The Nuclear Safety Authority (L'Autorité de sûreté nucléaire)(ASN) was setup as an independent administrative authority by law 2006-686 of 13<sup>th</sup> June, 2006. This law is also known as the Transparency and Nuclear Security Act (TSN Act). The main purpose of this law was to *"increase its independence and its legitimacy with respect to those in charge of promoting, developing and carrying out nuclear activities. It enjoys a new legal foundation and a status comparable to that of its counterparts in other industrialised nations."*<sup>32</sup> The functions of the ASN include regulating nuclear safety and radiation protection in order to protect workers, patients, the public and the environment from the risks involved in nuclear activities. The French nuclear sector is therefore independently regulated by parliamentary legislation.

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28Section 3 of the Nuclear Installations Act, 1965.

29Section 10 Health & Safety Act, 1974.

30See: [http://www.decc.gov.uk/en/content/cms/what\\_we\\_do/uk\\_supply/energy\\_mix/nuclear/new/reg\\_reform/reg\\_reform.aspx](http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/new/reg_reform/reg_reform.aspx) (last accessed on 18<sup>th</sup> July, 2010).

31*Id.*

32See <http://www.french-nuclear-safety.fr/index.php/English-version/About-ASN> (last accessed on 18<sup>th</sup> July, 2010).

- (iv) Australia: The Australian nuclear sector is regulated by a combination of the following agencies: The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), the Radiation Health and Safety Advisory Council, the Radiation Health Committee and the Nuclear Safety Committee. All of these agencies and committees, with the exception of ARPANSA, are formed through a Parliamentary Legislation – The Australian Radiation Protection and Nuclear Safety Act, 1998.<sup>33</sup> Although ARPANSA itself is not created under a parliamentary legislation the Chief Executive Officer (CEO) of this organization is a post created and regulated by the Australian Radiation Protection and Nuclear Safety Act, 1998. The Australian nuclear sector is therefore mostly, albeit not entirely independently regulated through Parliamentary legislation.
- (v) Canada: The Canadian nuclear sector is regulated by the Canadian Nuclear Safety Commission (CNSC). The CNSC was established in 2000 under the Nuclear Safety and Control Act, 2000 and reports to Parliament through the Minister of Natural Resources. The CNSC has a commission tribunal to review licences and ensure strict compliance to the regulations of the Nuclear Safety and Control Act, 2000. The Canadian nuclear sector is therefore independently regulated through Parliamentary legislation.
- (vi) Republic of Korea (South Korea): The Korean nuclear sector is regulated through the Nuclear Safety Commission (NSC) through an amendment to the Atomic Energy Act, 1996. In order to ensure the institutional independence of the NSC, the legislation ensures that the NSC is independent of the Atomic Energy Commission (AEC) and instead is under the jurisdiction of the Minister of Science and Technology.<sup>34</sup>
- (vii) Japan: The Japanese nuclear sector is regulated by the Nuclear and Industrial Safety Agency (NISA). NISA is not established through Parliamentary legislation but through executive orders and is actually an agency operating under the aegis of the Ministry of Economy, Trade & Industry. The lack of independence of the regulator has been criticized by experts and some experts have in fact put this down as the cause for the frequency of accidents at Japan's nuclear power plants.<sup>35</sup> The conflict of interest in Japan case may

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<sup>33</sup> See website of the ARPANSA: <http://www.arpansa.gov.au/AboutUs/structure.cfm> (last accessed on 16<sup>th</sup> July, 2010).

<sup>34</sup> See [http://www.kins.re.kr/english/nuclear/nuc\\_policy\\_01.asp](http://www.kins.re.kr/english/nuclear/nuc_policy_01.asp) (last accessed on 16<sup>th</sup> July, 2010).

<sup>35</sup> Jason Clenfield & Shigeru Sato, 'Japan Nuclear Energy Drive Compromised by Conflicts of Interest', *Bloomberg*, 12<sup>th</sup> December, 2007 available at <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=awR8KsLIACSo> (last accessed on 16<sup>th</sup> July, 2010).

however be lessened since unlike India, most Japanese nuclear power plants are run by private operators and not the government.

48. Recommendations: As explained in our earlier report the Atomic Energy Regulatory Board (AERB) in India was setup under an Executive Order by the President and not through a statute of Parliament.<sup>36</sup> The AERB in turn has constituted a plethora of committees such as the Advisory Committee for preparation of Code & Guides on Governmental Organization for the Regulation of Nuclear & Radiation facilities (ACCGORN), Advisory Committees for Codes, Guides & Associated Manuals for Safety in Operation of NPPs (ACCGASO) and Safety in Design (ACCGD) Advisory Committee for Safety Documents for Fuel Cycle Facilities (ACSDFCF), Advisory Committee on Radiological Safety (ACRS), Advisory Committee on Industrial and Fire Safety (ACIFS) and the Advisory Committee on Occupational Health (ACOH), Safety Review Committee for Operating Plants (SARCOP), Safety Review Committee for Applications of Radiation (SARCAR), Safety Review Committee for Applications of Radiation (SARCAR).
49. Originally the idea to setup the AERB was mooted by a committee headed by Shri V.N.Meckoni, then a Director at BARC. This Committee, which submitted its report titled "*Reorganization of Regulatory and Safety Functions*" in February, 1981, had recommended "*the creation of Atomic Energy Regulatory Board by the Atomic Energy Commission with powers to lay down safety standards and assist DAE in framing rules and regulations for enforcing regulatory and safety requirements envisaged under the Atomic Energy Act 1962*".<sup>37</sup> The Committee also recommended that the AERB "***should be a statutory body under the Act (if necessary by suitable amendment of the Act) to give AERB a legal basis***".<sup>38</sup> As history has been witness, the legal basis of the AERB has not crystallized through a statutory enactment.
50. As noted in the previous section most regulators in the top nuclear producing countries are mostly independent in the sense that they are statutory in nature since they have been created through a parliamentary legislation. Even in countries like Japan where the regulators seems to be working directly under governmental ministries the scope for a conflict of interest is substantially lower due to the fact that the plant operators are inevitably private players. In India however that is not the case. All nuclear plant operators

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36 Standing Order 4772.

37 See <http://www.aerb.gov.in/cgi-bin/aboutaerb/AboutAERB.asp> (last accessed on 16<sup>th</sup> July, 2010).

38 See <http://www.aerb.gov.in/cgi-bin/aboutaerb/AboutAERB.asp> (last accessed on 16<sup>th</sup> July, 2010).



are necessarily governmental companies who are functioning under the auspices of the Department of Atomic Energy. The AERB on the other hand is answerable to the Atomic Energy Commission (AEC).<sup>39</sup> However the AEC in itself is answerable to the Department of Atomic Energy (DAE).<sup>40</sup> In fact the Secretary to the Government of India in the Department of Atomic Energy (DAE) is the ex-officio chairperson of the AEC.<sup>41</sup> The regulator is therefore regulating operators like the Nuclear Power Corporation of India Limited (NPCIL) who are controlled by the same entity that controls the regulator itself. This setup creates an inherent conflict of interest which may severely compromise the safety and functioning of India's nuclear power programme.

51. ***It is therefore strongly recommended that the Government follows up on the Meckoni Committee Recommendations to ensure that the AERB is made an independent, statutory regulator.***

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39See <http://www.aerb.gov.in/cgi-bin/constitution/gazette.asp> (last accessed on 16<sup>th</sup> July, 2010).

40See <http://www.aec.gov.in/> (last accessed on 16<sup>th</sup> July, 2010).

41 See Government of India Resolution No. 13/758-Adm.