

NUCLEAR ENERGY AND CIVIL LIABILITY TWO WAY STREET?

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PURPOSE

THE purpose of the research paper is to bring forth the dilemma that is being faced by the world regarding the use of nuclear power. This paper aims at scrutinizing the energy scenario in India and the need for atomic power in the domestic circuit in conjugation with examining the liability law in force.

Design/Methodology/Approach: *The research methodology is qualitative and descriptive in nature which basically explores the data drawn from secondary sources.*

Findings: *Nuclear power is actually helping in tackling the situation of dwindling energy sources in the environment. In developed countries atomic energy accounts for as a major source of energy after it is converted into electricity. But liabilities against nuclear accidents are not covered properly by law provisions of different countries. Even if there are provisions regarding nuclear liability, they may not suffice the situational crisis. India has the potential to grow into a nuclear power with objectives of expanding its energy domain.*

Research Limitations/Implications: *The paper stresses on secondary sources considering the fact that field work in the said sector is, to some extent, not feasible. The paper does not talk about statistics time and again but focuses on the theory for such data.*

Practical Implications: *The research paper will assist in providing the readers with not a general view but an analytical view of the atomic energy scenario of the world.*

Originality/Value: *The paper proves to be the one-stop source of information of nuclear energy and the legal provisions covering nuclear liability.*

Key Words: *Nuclear Energy, Civil Liability, Nuclear Accident.*

Introduction

The place of human kind is facing an array of problems. The problems have put the countries at each other's throats when it comes to taking a major step in tackling that problem. One such problem which is being faced by majority of the countries is about the energy crisis situation which the world is anticipating at large.

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The rate at which the non-renewable sources of energy are being depleted can be treated as a caution to the countries about the situation that can be averted if the world powers come together for chalking out a possible solution.

One alternative that every country has looked for tackling the energy crisis situation is harnessing nuclear energy. But that alternative has its own share of pros and cons. The main apprehension which flows from using nuclear energy is the potential damage it might cause if there is any nuclear accident. The magnitude of damage a nuclear accident may cause has already been manifested in the accidents of Three Mile Island, Chernobyl Disaster and the very recent Fukushima Daiichi disaster. When it comes to analyzing the advantages associated with it, nuclear power seems to be a viable option of being explored because of efficiency and capability of generating more energy from fewer resources. As far as India is concerned about its stand in nuclear power, it is very much committed to the harnessing of nuclear energy which is quite evident from the fact that near around 19 nuclear power stations are in operation. The Indo-US deal of 2008 and the subsequent passing of Civil Liability Act in the year 2010 show India's policy towards harnessing nuclear energy in spite of protests in Jaitapur and Koondakulam.

The countries all around the world have taken different standpoints regarding the use of nuclear power. Countries like Germany have already announced the closure of nuclear plants by 2022. At the same time there are countries like China, that have been going on with the nuclear power as an alternative and viable source of energy production.

It should be agreed that although nuclear power has its own advantages, but on a wider perspective the potential damage it can cause cannot be overlooked. Securing future by putting present at risk cannot be an ideal way of saving the human civilization

Energy Scenario in India

The energy scenario prevailing in India shall give an outlook as to India's strategy in using nuclear energy and its commitment towards harnessing it. It has already been seen that at present India is operating nineteen nuclear reactors in and around different parts of the country with a power capacity of 4120 MW which is near around 2.8%. This is an evidence to the fact with which India is fast progressing to the securing the avoidance of a situation of energy crisis in the future (www.ibef.org).

Present Nuclear Set-Up in India

At present there are 19 reactors generating 4120 MW of energy. This includes 160 MW each in Maharashtra TAPS-1 and 2 at Tarapur and fifteen PWR. At Rawatbhata there are generation with plant capacity of 100 MW, 220 MW, and 200 MW (www.npcil.nic.in). The nuclear reactors at Kaiga and Kakrapar make up for the rest of the reactors and their production.

The government proposition can well be manifested through the Table 1:

This is the current nuclear energy scenario in India and the plans that government aims to undertake to boost up the nuclear power production to avoid an adverse situation of energy crisis.

However current situations in India regarding the protests shall give a better idea about the situation that India is currently facing in harnessing nuclear energy. The recent protests of Koondakulam & Jaitapur manifest the conflicts of nuclear energy in India. The reasons of conflict and the possible solutions brings out the dilemma that is being currently faced.

Kundakulam Nuclear Power Plant

It is famously said: "In public domain, truth is not the truth, perception is the truth". This adage could be related to the discourse on the Kudankulam Nuclear Power Plant (KKNPP). While the arguments in favour of the plant is that it will generate electric power essential for 'development', People's Movement Against Nuclear Energy (PMANE) say that the plant will be 'destructive' to the life and livelihood of the Project Affected People (PAP) (www.dianuke.org).

Table 1

Number	Project Name	Installed Capacity in MWe
1	Kakrapar 3 & 4	1400
2	Rawatbhata 7 & 8	1400
3	Kundakulam 3 & 4	2000
4	Jaitapur 1 & 2	3300
5	FBR	1000
6	Saurashtra	2000
7	Kovvada	2000

Source: www.assochem.org

Located in the Tirunelveli District of southern Indian state Tamil Nadu, an inter-governmental agreement was signed on November 20, 1988 by then Prime Minister, Rajiv Gandhi and Soviet President Mikhail Gorbachev for the construction of two reactors. The reason for this power plant in news of late is because of the mass agitation that has been launched against the power plant by the local masses.

There can be many reasons which can be attributed to the opposition to KNPP. Social activists and civil society played a very active role since the inception. The most interesting fact is that people, at the beginning, were very optimistic about it as hopes of economic development and prosperity were given. But the recent nuclear disasters actually catapulted the people to take serious note of the nuclear accidents all around the world. Some of the main reasons why Koondakulam power plant is not desirable and the reasons for which people are protesting can be categorized as follows (www.countercurrents.org):

- The PWD of Tamil Nadu Government has declared that an area of 2-5 Km within the nuclear power plant would be declared as sterilisation zone which would automatically result in the displacement of the people inhabiting that area.
- The waste from the power plant if not treated properly shall be dumped in to the sea which shall affect the fish and marine life.
- Time and again assurance has been given that there would be no natural disasters in the region. But going by the history it does not seem so. There was a mild tremor in the surrounding areas of Kundakulam on March 19, 2006. The tsunami did hit the KNPP installations in 2004. Thus surety cannot be given that it would not happen again.
- The biggest contention is about who shall be liable in case of any disaster. History is a testimony to the fact that after disasters parties start playing blame game and making some irrelevant people scapegoats to save the face of many. Ultimately the sufferers are the common people.

The Expert Committee on Peoples' Movement Against Nuclear Energy which is spearheading the movement against Kundakulam plant published its report on 15 December, 2011 with the following concerns:

- (i) Presence of volcanism at the site in the past and neighborhood.
- (ii) Four instances of small volume volcanic at the site.
- (iii) Karst formation during the last three years within 25 Kms of KNPP.
- (iv) The AERB guidelines are not being followed.

These reasons have well caused a stir in the public and led to protests in the recent times. Government has taken steps to pacify people but there has been some lack of communication between the two sides resulting in sort of a deadlock not ready to be resolved (www.timesofindia.indiatimes.com).

Jaitapur Power Plant

Another protest revolving around nuclear power plant in India is the Jaitapur Power Plant in Maharashtra. It is a proposed 9900 MW project of NPCIL at Madban village in Ratnagiri district, Maharashtra. The collaboration is between French company Areva and NPCIL, the deal worth being \$ 9.3 billion.

There have been some controversies, first being regarding the area which has been selected for the plant. The land is intended to be a seismic zone (www.greenpeace.org). This has been confirmed under RTI, 2005. The National Disaster Management Authority also places Ratnagiri as a seismic zone being classified under type IV category out of V (www.npcil.nic.in).

The main concern is that once this plant comes up near around 5200 litres of water will be used for cooling and along with that approximately 30% of marine life will be affected indirectly affecting the balance of trade.

It is one of the biodiversity hot spots ranging from a varied amount of flora and fauna. As stated above Konkan falls in the region of type IV seismic zone category. It is not clear whether the authorities have taken these things in to considerations or not. Construction of the plant would destroy the flora and fauna of the plateau (www.youthkiawaaz.com).

But the main concern is about the damage this project might cause to ecological system on the whole. According to Maharashtra Michhimar Kruti Samiti, seven of the region's largest fishing communities might be wiped off. If the project comes up the future of the fishermen in the region shall be endangered.

Government response to the public crisis at the initial stages was totally aggressive with activists and common people being put behind bars for agitation.

The concerns of the people were not looked at. Committees formed and commissions set up to pacify the people failed miserably because the root problems of the people were not addressed. Initially MoEF protested because the project violated environmental norms but after it got operational clearance, the fears of people were still not put to rest. Thus protests intensified. Currently works in Jaitapur are at hold over environmental and security concerns.

Briefly analyzing these two crises it would be seen that the main reason of the contention to some extent is lack of communication between the government and the agitating people. Though the government set up commissions but somewhere the attempt to strike a chord was lacking in both the cases. It can't be denied that the fears of the people are not without reason and hence it is up to the government to pacify these fears.

The fears which are seen in the minds of the people are because of various accidents which the world has witnessed at various times.

Nuclear Disasters

The movements that propelled Kundakulam and Jaitapur movements were due to various Nuclear Disasters namely Three Mile Island Disaster which caused a loss of \$ 82 million to the TMI plant operator and also \$ 15 million to the children born out of birth defects. The incident was rated a five on the seven-point International Nuclear Event Scale. The second and the largest nuclear disasters till date was the Chernobyl Disaster. It is widely considered to have been the worst nuclear power plant

accident in history, and is one of only two classified as a level 7 event on the International Nuclear Event Scale the other being the Fukushima Daiichi nuclear disaster in 2011. The Fukushima Daiichi nuclear disaster is a series of equipment failures, nuclear meltdowns, and releases of radioactive materials at the Fukushima I Nuclear Power Plant, following the Tohoku earthquake and tsunami on 11 March 2011. The operator of Fukushima Daiichi TEPCO became bankrupt after this disaster and the government had to pay compensation of \$ 126 Billion.

Indo-US Nuclear Deal

The 123 Agreement signed between the United States of America and the Republic of India is known as the “US-India Civil Nuclear Agreement” or “Indo-US nuclear deal”. (Maria and Adil, 2008) The main purpose of the 2008 agreement for cooperation between the government of The United States of America and The Government of India was concerning peaceful use of Nuclear Energy (123 Agreement) with a clear purpose to “Enable full civil Nuclear Energy Cooperation between the Parties.”

The 123 Agreement was signed between India and USA in the backdrop of India’s growing demand for Energy Supplies and to secure its high rate of Economic Growth (Bajoria and Pan, 2009).

The 123 between India and USA put an end to technology denial regimes against India that have been in place for Three Decades and hence Ended India’s Nuclear Isolation.

Under the Indo-US Deal, it agreed to let the International Atomic Energy Agency inspect 14 of its 22 reactors. To enable the provisions of the deal, India agreed to separate its civilian and military nuclear facilities and to place its civilian facilities under IAEA safeguards (Scissors, 2010).

An enabling legislation, called the Hyde Act, was passed in the US Congress in December, 2006, to enable the US Government to cooperate with India. The Hyde Act is only a US law. It is not binding on India.

International Nuclear Liability Damage Compensation Regime

The basic principle of international nuclear law can be succinctly reduced to the following channeling liability exclusively to the operator of the nuclear installation, limiting the liability (amount, duration, and damage type) of nuclear operators, requiring the operator to have insurance, imposing strict liability upon the operator, ‘and granting exclusive jurisdiction to the court of one country for a given nuclear incident or accident.

Convention on Third Party Liability in the Field of Nuclear Energy (Paris Convention)

The convention on third Party Liability in the field of Nuclear Energy¹ most commonly known as the Paris Convention, was one of the 1st Nuclear Conventions that dealt with liability issues in a post-nuclear weapons world held on July 29, 1960.

The Paris Convention was the 1st International Treaty to introduce this concept of Channelling Liability to the Nuclear Operator (Borre, 1998).

The principle had two major implications:

1. Only the Nuclear Operator can be held liable for any Nuclear accident that fell under its purview.
2. Only the operator can be liable-meaning the operator cannot seek financial recourse through Third Party Lawsuits, indemnity action or by legal means.

Vienna Convention on Civil Liability for Nuclear Damage

The Vienna Convention on Civil Liability for Nuclear Damage of 1963² is very similar to the Paris Convention.

The Vienna Convention defines damage as a loss of life, “any personal injury or any loss of, or damage to property from a nuclear incident, or damage arising from the incident”³.

In addition, like the Paris Convention, the Vienna Convention has an “Armed Conflict” exception, and requires that operator be insured⁴. However the Vienna Convention does not limit damage to that caused within the territory of the installation state⁵. The Vienna Convention limits plaintiff’s ability to raise a claim to within ten years of the incident (Fritz, 1994).

Civil Liability is restricted to the single Operator entity who, in turn, cannot seek financial recourse elsewhere (Bagely, 1992).

Unfortunately the Vienna Convention maintains the exclusive and strict liability of the Nuclear Operators and it maintains jurisdiction primarily in the country of occurrence or installation⁶.

Convention on Supplementary Compensation for Nuclear Damage

In 1997, the Convention on Supplementary Compensation for Nuclear Damage (CSC)⁷ was created as a means for a Supplementary Compensation fund to be available to the Signatories of the accord.

The Fund is collectively provided by contributions from State parties⁸. The installation States shall ensure the availability of at least 300 million SDRs (Currie, 2006).

The CSC is not yet in force because it must have at least five states that have ratified it with a minimum capacity of 400 GW installed (Bajoria and Pan, 2010).

Civil Liability For Nuclear Damages Act, 2010

The oil spill in the Gulf of Mexico and the Bhopal tragedy have brought back into focus the issue of industrial accidents, contractual liabilities and questions of operator liability (Kumar and Powell, 2010). The Bhopal Gas Tragedy has engaged the Indian Government and Courts for over twenty six years and yet a solution acceptable to victims and other stakeholders is proving to be elusive. There was a requirement to have a legal regime to compensate for damage and losses arising from nuclear accidents in India since it had been planning a nuclear expansion in the energy sector and becoming a superpower. Further, the Indian nuclear industry is now expected to grow several fold from the present 4,120 MW. Such a large nuclear programme warrants legislation to cover all aspects of civil liability, including possible trans-boundary damage. The legal basis for the use of nuclear energy is to be found in the “Atomic Energy Act, 1962” and a number of further regulations or supplementary rules. But before 2010 neither the Indian Atomic Energy Act, 1962 nor the Environmental Protection Public Liability Insurance Act, 1991⁹ had jurisdiction over accidents due to radioactivity. Instead, general non-contractual liability law (tort law, common law) was applicable. Therefore, introduction of a nuclear liability act in the national scene was the crying need of the hour.

Purpose of the Act

The main proponents of the Act advocate that the Act will strengthen India’s development on four fronts¹⁰: (1) it will increase India’s ability to produce energy and electricity (2) it will develop India’s defence technology (3) it will allow for advancements in India’s space program (4) it will stimulate global interest and investment in India. The main objective of the Act is to provide for prompt compensation to the victims in case of a nuclear accident. In the absence of any separate Indian law for industrial/chemical accidents, only the Public Liability Insurance Act (1991) would have provided for immediate relief to the victims of a hazardous accident, which is a maximum of Rs. 25,000 per person plus reimbursement of medical expenses up to a maximum of Rs. 12,500. Had India been a victim of a nuclear accident if there was no nuclear liability act in force, such lowly compensation for the victims would have been upsetting for the nation in the global forum.

Global and National Standpoint: An Assessment

Since its existence on the Statute Book, the Indian nuclear liability law has been a subject matter of discussion in the international nuclear arena. At the international level there are four instruments

for nuclear liability i.e., the OECD's Paris Convention of 1960 (entered into force in 1968) which was strengthened by the Brussels Supplementary Convention (BSC) in 1963, the IAEA's Vienna convention of 1963 (entered into force in 1977), and the yet to come into force Convention on Supplementary Compensation (Ramachandran, 2010).

Each of these conventions are based on the following basic principles¹¹:

- i. Operator is liable regardless of fault or negligence¹²;
- ii. Absolute liability or strict liability of such an operator, which relieves the victim from burden of proof;
- iii. Liability limited in amount and time;
- iv. Include a single competent court to adjudicate claims;
- v. Compulsory financial security of the operator's liability through insurance coverage or any other means; and
- vi. Non-discrimination based on nationality, domicile or residence.

The operator's liability is generally limited or fixed to ensure that there is sufficient compensation provision for the victims and that the investment in the sector does not die out. However, to bridge the compensation gap beyond the operator limit, the conventions envisage a three-tier liability structure: operator liability, installation state liability, and liability of contracting parties to the convention (channeled through a contributory international fund). In principle, however, depending upon the convention adhered to, or an appropriate national legislation, operator's liability may be kept limited or unlimited (Ramachandran, 2010).

The reason for enacting a domestic legislation, apart from providing compensation, is to facilitate the joining of an international liability regime. Only international instruments or conventions for that matter provide for trans-border liability and thus a national legislation was required. The CSC requires national nuclear liability legislation that is consistent with the Annex to the Convention (Göttingen, 2011). Thus the national nuclear liability bill was modeled as per CSC terms (Ramachandran, 2010).

Furthermore, under CSC, suppliers are not to be held directly liable. Such provisions that would facilitate American export were of essential importance for the United States as it is in their interest. According to American commentary, the new Nuclear Liability Act was a "flawed civil nuclear liability legislation" which is not compatible with the US-India Agreement (Lisa, 2010). The underlying aspect behind the US not being happy about the Indian legislation is that it has a Clause by means of which the operator can shift the liability on the supplier. The Act was defended in the Indian Parliament saying that the legislation would allow India to participate in nuclear trade with foreign suppliers and "end nuclear apartheid" against the country (Kumar, 2010). But existence of such a Clause is not in their interest and its implication can be that they might not consent to contracting with the Indian government.

India's ambitious wish to expand its nuclear energy sector several fold cannot be realized without international cooperation, especially without international supply. In the current international environment none of the major suppliers of nuclear equipment US/France/Russia/Germany etc will supply any such item to a country that does not have a liability act that does not conform to the international standards (Balachandran, 2010).

"The opponents of the bill are of the view that the much debated legislation has been enacted to suit the US suppliers and that it favors them. But this is completely misplaced and wrong because, one, its provisions are not US-specific and they will apply to all suppliers. Two, contrary to what critics

and media commentators have consistently held, nuclear cooperation agreements with France and Russia have specifically provided for protecting the supplier against any liability claims in case of any damage due to nuclear accident” (Ramachandran, 2010).

Issues of the Bill

Whether Private Operators are Permitted

Initially the term “operator”, in relation to a nuclear installation, meant the person designated by the Central Government as the operator of that installation¹³. It did not clearly specify whether private operators were permitted. The definition of “operator” under Clause 2(l) was amended and Clause 2(m) was inserted which defined an “operator” with a more detailed outlook to include only the Central Government or any authority or corporation established by it or a Government company who has been granted a license under Atomic Energy Act for such an operation. Private sector involvement requires modifications in the regulatory framework and steps that will take some years before completion. Essentially, the state-owned Nuclear Power Corporation of India Limited (NPCIL) assumes responsibility for compensation, since private firms are allowed to participate in nuclear power generation to a maximum of a 26% stake. At present, however, no FDI or private ownership, which requires an amendment to the AEA, is envisaged.

“It must be kept in mind that the United States has the largest number of NPPs and it has an extremely well developed private owned nuclear industry as well as insurance services. India, in comparison, has only state owned operators and there is, therefore, no insurance cover. The insurance industry too has, therefore, not evolved to deal with the nuclear industry. Indeed, Section 8 of the Act specifies that a government operator need not take any insurance policy” (Ramachandran, 2010).

Whether there is Absolute Liability

Chapter 11 the IAEA publication “Handbook of Nuclear law” suggests that the operator of a nuclear installation should be held liable, regardless of fault. The reason behind this is that in nuclear incidents the plaintiffs must show that the defendant or the NPP operator was negligent in its actions and that was what caused the damage. Such proofs may well be beyond the means of most plaintiffs and would in case, require substantial time to be established. The Civil Liability for Nuclear Damage Act, 2010 does incorporate the principle of no-fault liability that by means of Section 4 wherein it says that “The operator of the nuclear installation shall be liable for nuclear damage caused by a nuclear incident”¹⁴ and that its liability “shall be strict and shall be based on the principle of no-fault liability”¹⁵. But “the Act provides only ‘liability’ and not ‘absolute liability’ betraying a built-in escape option provided for both the operator and the Government” (Kumar and Powell, 2010). The use of the terms “strict” or “absolute” merely signifies a difference of degree in the range of exculpatory factors which may exclude liability but Commentators are of the opinion that for strict liability extraneous factors may exonerate, such as Act of God, force majeure, intervening acts of third parties.

Whether Total Liability is Insufficient

Clause 6 (1) fixes the “maximum amount of liability in respect of each nuclear incident” at the rupee equivalent of 300 million Special Drawing Rights (1 SDR = approx \$1.54 as of February 2010), which equals \$460 million or Rs. 2100 crore. But the central government has also been empowered to take additional measures beyond the capped amount if the amount of compensation exceeds 300 million SDR. One incentive to set the amount of financial liability at the minimum is because any insurance premium paid by the supplier or the operator will add to the overall cost of business¹⁶. This in turn means that it will cost the government more money to set up the plant, as well as cost the public more to buy the electricity (Lao, 2010). A second incentive is that following the Convention on Supplementary Compensation (CSC) for Nuclear Damage a country is eligible for international funding in the case of an accident – but only if its cap sits at 300 million SDR and the costs of an accident end up exceeding that amount¹⁷.

But once Section 5 proviso read with Section 46 of the Act is noted, it would appear that damages under the Act would be in addition to damages payable under any other law. On a combined reading it would thus appear that while prima facie the operator's liability does appear to be capped, however, in reality it is unlimited (Ghosh, 2010).

Whether Operator's Liability is Low

As regards the maximum liability of an operator, Clause 6(2) fixed it at Rs. 500 crores. But the financial liability provided for in the aforementioned Section does not even come close to the financial packages offered in other countries. A study found that the severe spent fuel pool accidents could result in damages from somewhat under \$1 billion of up to \$566 billion (Travis et al., 1997). As far as the Vienna Convention is concerned, it does not limit the operator's liability in any way. But making the liability unlimited would make any project unviable as the operator will never be able to secure the financial security for the same.

A majority of the experts who deposed before the Committee were of the view that the cap on liability of an operator to Rs. 500 crore is on the lower side and it should be increased¹⁸. Keeping in view of the inflation level and purchase value of Indian currency the operator's liability was raised to Rs 1,500 crore. The further proviso to Section 6 (2) of the Act states that the government may increase the liability in the future, as the law is always developing, but in no case should it decrease it.

Whether Liability of the Central Government is Ambiguous

Section 7 of the Act attempts to create a distinction between the operator and the Government when both are the same in the Indian context. Another ambiguity is whether no liability arises on a Public Sector operator and whether the Public Sector operator does not even have to opt for insurance cover as the Government is liable for nuclear installations it owns (Kumar and Powell, 2010). The government made an amendment to introduce that the Central Government may assume the liability of a nuclear installation "not operated by it" by notification if it feels that doing so in the public interest¹⁹. The noticeable aspect of this amendment is that it talks about nuclear installations not operated by the Central Government which goes on either to show the Government's intention to introduce private entities in the nuclear operational sector with major stake or a flaw in the amendment. But if the operator is a joint venture government company, this Clause implies that the government may take over the liability of the private shareholders.

Bar on Jurisdiction of Civil Courts

A further sub-clause to Section 9 of the Act states that in respect of the settlement and adjudication of claims for compensation of nuclear damage not the regular courts are competent, but one or more Claims Commissioners. They will have to that extent the authority and function of a 'civil court'²⁰.

The intention of the lawmakers was to ensure that prompt remedy is given to the victims without protracted litigation. But the Standing Committee opined otherwise and the amendments made in this regard were that (a) the Supreme Court and (b) the High Courts exercising their jurisdiction under Article 226 (writ jurisdiction) and Article 227 (High Court's power over tribunals) will have jurisdiction²¹. Apart from the aggrieved persons who may initiate civil action, any "public-spirited" individual can file "public interest litigation" under the writ jurisdiction of the Supreme Court or High Courts. In addition, claims in the form of class actions may be filed before civil courts (Saraf, 2010).

Recourse against Suppliers

The most talked about Clause in the Act is Section 17 which provides for recourse by the operator against a negligent third-party supplier, thus making supplier's liability a part of Indian nuclear law (Hariharan, 2012).

The concept of "legal channelling" of liability is the cornerstone of the nuclear liability regimes²². 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. (Borre 1998). According to this understanding, liability arising from a nuclear incident is, by law, channeled to the nuclear operator²³. One important reason for fixing the liability is to provide the victims with a single source of remedy. However, this should not mean that it overrules supplier's liability. Clause 17 does specify supplier's liability but it is under contractual liability. It allows only the operator to sue manufacturers and suppliers for negligence in case of nuclear disaster²⁴.

Under the Indian Act, victims can only sue the operator, and not the manufacturers and suppliers. However, in India the operator will be a government owned facility. Therefore, if victims sue the government and receive monetary compensation, the money will come from fellow taxpayers²⁵. Furthermore, international regimes like the Paris Convention, the Vienna Convention and the 1997 CSC provide for recourse only if: (a) there is a written contract and (b) if the damage results from an act or omission of someone with intent to cause damage. So, a legislation providing an additional right of recourse against the supplier for a willful act or negligence could not be compliant with CSC which India proposes to join²⁶.

The amendments which were made in this regard were that: i) an operator has a right to recourse only after paying the compensation (which is to avoid any delay in compensating the victims), ii) Clause 17(b) requires (a) intent to cause damage on the part of the supplier or his employees, and (b) latent or patent defects²⁷.

Conclusion

This paper has discussed the various facets of nuclear power generation around the world mainly centering around the liability bill that has passed. The atomic power development all over the world shows an inclination towards increasing tendency to harness nuclear energy. There have been many conventions and meetings regarding its issues and the world superpowers have always taken visible conflicting views at global forums. As far as India is concerned, recent progress shows that the nation is also ready to take the colossal step in becoming a dominant country in the power sector. The not so old INDO-US deal of 2008 can be seen as a positive stride in India's nuclear prowess. Flowing from it, the passing of the Civil Liability for Nuclear Damage Act in 2010 was a momentous affair in India's foreign policy but there are some provisions which are being disputed even today notwithstanding the 18 amendments that the government brought in. At the end, it must be remembered that everything comes at a cost. The world has already experienced three major nuclear disasters and another one cannot be afforded. Thus the executive heads of the countries wishing to realize their vision of harnessing nuclear energy at a major scale must strive towards incorporating a risk free method of using atomic energy to make the world a better and safer place to live in. To change our future we must carefully lead our present. So any decision regarding nuclear power should not be taken in haste and proper discussions and dialogues must be undertaken before initiating any progress in the nuclear power programs.

Notes

¹ Convention on Third Party Liability (1960) in The Field of Nuclear Energy, Nuclear Energy Agency, July 29, 1960 available at http://www.oecd-nea.org/law/nlparis_conv.html, accessed on 27th July, 2012.

² Vienna Convention on Civil Liability for Nuclear Damage, Int'l Atomic Energy Agency, May 21 1963, INFCIRC500.

³ CLRA Policy Brief for Parliamentarians, "Civil Liability for Nuclear Damage Bill 2010: How Civil and How Liable?", Centre for Legislative Research and Advocacy, Policy Brief Series: No. 10; 2010 July-August.

⁴ Vienna Convention on Civil Liability for Nuclear Damage, Int'l Atomic Energy Agency, May 21 1963, INFCIRC500.

⁵ Liability for Nuclear Damage, World Nuclear Association (Aug 2011).

⁶ Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage, Int'l Atomic Energy Agency, opened for signature Sept. 12, 1997, INFCIRC/566.

⁷ International Atomic Energy Agency, Convention on Supplementary Compensation for Nuclear Damage, INFCIRC/567.

⁸ *Ibid.*

⁹ The Public Liability Insurance Act (1991), which provides immediate relief to persons affected by accident "occurring while handling any hazardous substance and for matters connected therewith or incidental thereto", specifically excludes all nuclear – including radiological – accidents.

- ¹⁰ CLRA Policy Brief for Parliamentarians, “Civil Liability for Nuclear Damage Bill 2010: How Civil and How Liable?” Centre for Legislative Research and Advocacy, Policy Brief Series: No. 10; 2010 July-August.
- ¹¹ Department Related Parliamentary Standing Committee on Science & Technology, Environment & Forests, Two Hundred Twelfth Report on “The Civil Liability for Nuclear Damage Bill, 2010” (Presented to the Rajya Sabha on 18th August 2010) (Laid on the table of the Lok Sabha on 18th August, 2010); found on <http://rajyasabha.nic.in>, last accessed on August 27, 2012.
- ¹² Convention on Third Party Liability in the Field of Nuclear Energy, Nuclear Energy Agency, July 29, 1960, at: http://www.oecd-nea.org/law/nlparis_conv.html [hereinafter Paris Convention], last accessed on August 25, 2012.
- ¹³ Clause 2(l), The Civil Liability of Nuclear Damage Bill, 2010, Bill No. 19 of 2010.
- ¹⁴ Section 4, The Civil Liability for Nuclear Damage Act, 2010.
- ¹⁵ Amendment No. 6, Notice of Amendments, Civil Liability for Nuclear Damage Bill - 2010, August 20, 2010, p.6.
- ¹⁶ CLRA Policy Brief for Parliamentarians, “Civil Liability for Nuclear Damage Bill 2010: How Civil and How Liable?” Centre for Legislative Research and Advocacy, Policy Brief Series: No. 10; 2010 July-August.
- ¹⁷ CLRA Policy Brief for Parliamentarians, “Civil Liability for Nuclear Damage Bill 2010: How Civil and How Liable?” Centre for Legislative Research and Advocacy, Policy Brief Series: No. 10; 2010 July-August.
- ¹⁸ A Decade Later, TMI’s Legacy Is Mistrust “The Washington Post, March 28, 1989, p.101.
- ¹⁹ Amendment No. 9, Notice of Amendments, Civil Liability for Nuclear Damage Bill - 2010, August 20, 2010, p.2.
- ²⁰ See Section 12, Civil Liability for Nuclear Damage Act, 2010.
- ²¹ Amendment No. 18, Notice of Amendments, Civil Liability for Nuclear Damage Bill - 2010, August 20, 2010, p.3.
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