



Review Paper

Radioactive Hazardous Emission Issues and Sustainability Rhetoric of Indian Judiciary: A Review

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Abstract

Radioactive Hazardous Emission Issues have become a new challenge for protecting the environment of the earth. Hazardous wastes are the wastes which may be in solid, liquid or gaseous form, may cause danger to health or environment either alone or when in contact with other wastes. In this article author riveted on hazardous and its most atrocious form i.e. radioactive hazards. The UNO has organized some conventions to deal with the problem. In developing countries, the thrust on economic development is often given priority to production costs than the best available technology and these results in more wastes generation and the international regulations have not been able to stop radioactive hazardous emission. The developed countries are trying to develop the domestic regulations in this regard but in developing and undeveloped countries this issue is either untouched or avoided. The supreme court of India and high courts have looked in to the issues of radioactive hazards and passed some landmark judgments. The article discussed about the absence of proper legislation the guidelines passed by Indian judiciary which have become the law of land. The article also discussed the confounding view of Supreme Court at different point of times. The Indian judiciary has established some watershed principles which are discussed and examined in the article.

Key words: Hazardous, Radioactive, Emission, Environment, Judiciary

Introduction

The Indian environment law on Hazardous waste Emission is derived from International environment law. What is International environment law on Hazardous Waste Emission? Has it been able to protect the environment of the earth? Some jurists found that the international law is not a law. Is it a moral statement, deterrence or a socializing tool? Is it merely aspirational? The United Nation being a law making body at international level has shown its concern by making a millennium declaration

“We must spare no effort to free all of humanity, and above all our children and grandchildren, from the threat of living on a planet irredeemably spoiled by human activities, and whose resources would no longer be sufficient for their needs”
(United Nations Millennium Declaration, Doc A/Res/55/2, adopted by the General Assembly, 13 September 2000).

According to a German jurist Friedrich Karl von Savigny law cannot be universal. The basis of the law is to be found in general consciousness of the people and a manifestation of their spirit. He further says Law grows with nation increases with it, and dies at its dissolution. The Indian environment law is developed by political and Juristic elements. The political elements developed the legislation part and the remaining part is developed by Indian judiciary which is called the law of the land. United Nation has being an active international law making body organized a great number of conventions i.e. Stockholm, Rio, Johannesburg specially for hazardous waste Basel Convention and Bamako Convention etc. in the 20th century the concern and awareness about the protection of environment was increased. After Human environment convention of 1972 at Stockholm a new framework was developed in Indian legislation and in the latter half of the 20th century the parliament of India promulgated the environment (Protection) Act in 1986 which is an umbrella legislation to save and betterment of the environment and to regulate the management and handling of hazardous substance and chemicals. The Ministry of Environment and Forests continuously monitors the progress made by various state government and union territory in terms of implementation of the Hazardous Waste (Management and Handling) rules (1989 and 2000). The constitution of India was amended in 1976 to incorporate some provisions to protect the environment. The constitution of India has a numbers of articles enumerated in its framework. In fundamental rights Article 21 (Right to life and liberty under Fundamental Rights provided by the constitution of India 1950) in directive principle Article 48A Directive Principles under constitution of India 1950 and in duties 51 A (g) Duties under the constitution of India 1950. There are some more provisions provide

procedure for adopting national legislation in regard to the need of the states (Article 252 and Article 253 of the Constitution of India, 1950). All the constitutional Articles and other legislations are taken care by the courts. The Supreme Court of India has been acting actively on hazardous emission. Article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to enforcement of Fundamental Rights. Article 21 of Indian constitution for right to life is inclusive of right to clean environment. Further the juristic elements have been a major function of the Law of a country. In my communication I have emphasized on juristic elements in the protection and prevention of environment and checked whether the law declared by Indian judiciary has been able to protect us from Hazardous waste Emission or not. Generally the developing countries are not well equipped to manage the wastes come from developed countries and unable to protect people's health and environment. The alternative ways and the cost of disposing wastes is usually significantly lower than either instituting waste minimization techniques at the source or utilizing an approved disposal facility located in the generating country (Lakshman Guruswamy, International Environmental Law in a Nutshell, St Paul, West Publishing Co., 2007, pp. 290-291). The notion of hazardous waste should be cleared scientifically and then legally.

Hazards of Hazardous Waste

Hazardous waste in India has been defined as *“any substance including domestic and radioactive wastes, which because of its quality and/or corrosive, reactive, ignitable, toxic and infectious characteristics causing significant hazardous to human health and environment when improperly treated, stored, transported and disposed”*.

Hazardous wastes, which may be in solid, liquid or gaseous form, may cause danger to health or environment either alone or when in contact with other wastes. Commonly the wastes can be Categorized in four types.

- Flammable e.g. solvents generated by chemical manufacturers, laundries & dry cleaners, metal plating, tanneries, print shops etc
- Corrosive e.g. acids and alkalis generated by cleaning & maintenance, equipment repair, vehicle body shops etc
- Reactive eg bleaches and oxidizers generated by chemical manufacturers, laboratories etc
- Toxic and eco-toxic e.g. heavy metals, pesticides, cyanides such waste generated by metals manufacturing, photographic processing, pesticide end users etc

Further the Ministry of Environment & Forests in its notification of 28th July, 1989 categories of wastes specified in the following Schedule. Categories of hazardous wastes (In exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government made the rules called the Hazardous Wastes (Management and Handling) Rules, 1989):

Waste Categories	Type of wastes	Regulatory Quantities
1	2	3
Waste Category No. 4	Mercury, Arsenic, Thallium and Cadmium bearing wastes.	5 kilogrammes per year the sum of the specified substance calculated as pure metal.
Waste Category No. 5	Non-halogenated hydrocarbons including solvent.	200 kilogrammes per year calculated as non-halogenated hydrocarbons.
Waste Category No. 6	Halogenated hydro-carbon including solvents	50 kilograms per year calculated as halogenated hydrocarbons.
Waste Category No. 7	Wastes from paints, pigments, glue, varnish and printing ink.	250 kilogrammes per year calculated as oil or oil emulsions.
Waste Category No.8	Wastes from Dyes and Dye intermediate containing inorganic chemical compounds.	200 kilogrammes per year calculated as inorganic chemicals.
Waste Category No. 9	Wastes from Dyes and Dye intermediate containing organic chemical compounds.	50 kilogrammes per year calculated as organic chemicals.
Waste Category No. 10	Waste oil and oil emulsions.	1000 kilogrammes per year calculated as oil and oil emulsions.
Waste Category No. 11	Tarry wastes from refining and tar residues from distillation or pyrolytic treatment.	200 kilogrammes per year calculated as tar
Waste Category No. 12	Sludge arising from treatment of waste	Irrespective of any quantity.

	waters containing heavy metals, toxic organics, oils emulsions and spend chemical and incineration ash.	
Waste Category No. 13	Phenols.	5 kilogrammes per year calculated as phenols.
Waste Category No. 14	Asbestos.	200 kilogrammes per year calculated asbestos.
Waste Category No. 15	Wastes from manufacturing of pesticides and herbicides and residues from pesticides and, herbicides formulation units.	5 kilogrammes per year calculated as pesticides and their intermediate products.
Waste Category No. 16	Acid/Alkaline/Slurry	200 kilogrammes per year calculated as Acids/Alkalies.
Wastes Category No.17	Off-specification and discarded products.	Irrespective of any quantity.
Wastes Category No.18	Discarded containers and Containers linears of hazardous and toxic wastes.	Irrespective of any quantity.

The High Court of Jharkhand at Ranchi (Court On Its Own Motion vs Union Of India And ors in the High Court of Jharkhand at Ranchi W.P.(PIL) No. 1188 of 2014 decided on 28 February, 2014) has recently come out with his opinion about radioactive hazardous waste and ordered to Uranium Corporation of India Ltd. (U.C.I.L.) which is a Public Sector Enterprise under the Department of Atomic Energy, Govt. of India. Radioactive waste coming out from three U.C.I.L. owned uranium mines has put about 50 thousand people in Jharkhand's Jadugora at risk. The health problems related to hazardous waste are affecting the people. Though the production of uranium by U.C.I.L. plays a significant role in India's Nuclear Power Generation Programme but the court found the following health related problems of indigenous people around uranium mining-

- (i) Congenital Deformities: Congenital defect as a cause of death of a child is also high among mothers living near uranium mining operations area. Children are born with swollen heads, blood disorders and skeletal distortions.
- (ii) Cancer: Cancer as a cause of death is more common in villages surrounding uranium operations.
- (iii) Primary sterility: Primary sterility is more common in the people residing near uranium mining operations area.
- (iv) Life Expectancy: The life expectancy of people living near uranium mining operations area is less; as a result more people are dying in their early ages in villages around uranium mining operation area.
- (v) Abortion: Prevalence of spontaneous abortion among married women is more in the people living near uranium mining operational area.
- (vi) Tuberculosis: Pulmonary Tuberculosis is very high among the people working in or living near the uranium mining operational area. Several TB patients are being treated at government/UCIL health facilities for years together, with no relief in most of the cases.
- (vii) Lungs Diseases: Prevalence of lungs diseases are very common in the people living near uranium mining operational area.
- (viii) Kidney Function: Long-term ingestion of uranium by humans may produce interference with kidney function at the elevated more threat.

Menacing humankind through hazardous radiation emission

The Central Government as well as the State Government is bound to observe social welfare laws in view of the provisions contained in Article 21 of the Constitution which assures the right to live with human dignity, free from exploitation and health hazard. The cell phone technology has revolutionized the tele-communication scenario in India. It has grown exponentially in the last decade. There are more than 40-50 crore cell phone users and nearly 4.4 lac cell phone towers to meet the communication demand. The numbers of cell phones and towers are increasing without giving due respect and credence to its disadvantages in all over the world. People have been debating about health risk due to EMF radiation from cell phones and towers. EMF radiation effects are divided into thermal and non-thermal effects. Thermal effects are similar to that of cooking in the microwave oven and the non-thermal effects are not well defined, but they are 3 to 4 times more harmful than thermal effects. The cell phone transmits 1 to 2 watt of power in the frequency range of 824-849 MHz (CDMA), 890-915 MHz (GSM 900) and 1710-1780 MHz (GSM 1800). In USA, Specific Absorption Rate (SAR) limit for cell phones is 1.6 W/kg which is actually for 6 minutes per day usages. A person should not use cell phone for more than 18 to 24 minutes per day. Such information is not furnished to the people in India. Crores of people are using cell phones for more than an hour per day without realizing its health hazard. It is further averred that various cell tower antennas transmit the aforesaid frequency and 3 G technology has also been deployed in which base station antenna transmits in the frequency range of 2110-2170 MHz. It is also stated at bar that now 4G technology has also been deployed. The mobile phone operators divide a region

in large number of cells and each cell is divided into number of sectors; the base stations are normally configured to transmit different signals into each of these sectors; majority of towers are mounted near the residential and office buildings to provide good mobile phone coverage to the users. These towers emit radiation 24x7 so people living within 10 meters of towers will receive ten thousand to one crore times stronger signal than required for mobile communication. Crores of people reside within these high radiation zones, mobile companies operate GSM network in all parts of the countries providing 2G or 3G services depending upon the country of operation. The communication towers are erected at prominent locations as well as near hospitals and schools. Young children are more prone to the electromagnetic radiations as their immune power is far less than a normal adult. The experts say that amount of radiation emitted from these towers in a day, is equivalent to putting one's body in an oven for 19 minutes. The exposure to RF fields is likely to lead to an increase in cancer, fatigue, sleep disturbances, dizziness, loss of mental attention, reaction times and memory retentiveness, headaches, malaise, tachycardia (heart palpitations) and disturbances to the digestive system (Court On Its Own Motion vs. Union Of India And ors in the High Court of Jharkhand). It is also harmful for aged, pregnant women and children. It also causes impotency, cataract, heart disease and affects kidney ("Radiation norms adopted in different countries" report by Prof. Girish Kumar, Engineer, IIT Bombay). The scientist claimed that radiations emitted from the cellular towers could lead to blood brain barrier, risk to children and pregnant women, irreversible infertility, calcium ion release from cell membranes, DNA damage, effects on stress proteins, effects on skin, tinnitus and ear damage, effects on eye/uveal melanoma, salivary gland tumor, melatonin reduction, sleep disorders, neuro degenerative diseases, increase in cancer risk; epidemiological studies in various countries indicate that there is adverse effect on birds, animals and environment, effect on honey bees, effect on birds, effect on mammals and amphibians, effect on plants. even the organizations like WHO, ICNIRP, FCC etc. have not recommended stricter safe radiation guidelines whereas several countries have adopted EMF radiation norms at much less values based upon their studies. The cell phone industry is becoming another cigarette industry, which kept claiming that smoking is not harmful and now there are millions of people who have suffered from smoking as a matter of fact cell phone/tower radiation is worst than smoking and its effect on health is noted after a long period of exposure. Majority of people are casual towards these aspects; ignorance and non-awareness adds to the misery and they are absorbing the slow poison unknowingly. The Article 21 of the Constitution assures right to live with human dignity, free from exploitation and State is under constitutional obligation to see that there is no violation of fundamental right of any persons, especially when they belong to weaker sections of the community and unable to battle against the strong and powerful opponent, who is exploiting them. Mobile tower companies are unable to protect constitutional and fundamental right of the citizen. But on the contrary Union of India and Tele-communication companies have their difference of opinion. It is contended that radiation from mobile phones and BTSs falls under non-ionizing category which is not considered to be harmful because it cannot break molecular bonds; various studies undertaken by WHO, ICNIRP and other international organizations have shown that there is no direct evidence proving cause effect relationship between radiation exposure from mobile towers and hazardous effect on human being; WHO in 2006 has concluded that "Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF Signals from base stations and wireless networks caused adverse health effects. From all evidence accumulated so far, no adverse short or long term health effects have been shown to occur from the RF Signals produced by based stations". WHO has recommended that "National authorities should adopt international standards to protect their citizens against adverse levels of RF fields. They should restrict access to areas where exposure limits may be exceeded". WHO has referred to the International Exposure Guidelines developed by International Commission on Non-Ionizing Radiation Protection (ICNIRP); ICNIRP in its report of 1998 has prescribed levels limiting EMF emission from Base Transceiver Stations (BTSs) as safe for general public, details of which have been given in the return. In India, the cellular GSM services are being operated at 900 MHz and 1800 MHz frequency band, for 900 MHz, permissible power density is 4.5 W/Sqm, whereas for 1800 MHz, permissible power density is 9 W/Sqm. The Government of India has adopted the ICNIRP guidelines for basic restriction and limiting reference levels of electromagnetic radiation from mobile towers. DoT has directed all CMTS/UAS licensees to make compliance of the reference limits/levels prescribed by ICNIRP by way of self certification of their Base Transmitting Stations (BTS) for meeting the EMF radiation norms. if the site fails to meet the EMF radiation criterion, there is provision of levying a penalty of Rs.5 lakhs per BTS per service provider; service providers must meet the criterion within one month of the report of TERM cell in such cases, after which the site will be shut down. It is further contended that with respect to EMF radiation from mobile handsets, ICNIRP has prescribed the values for Specific Absorption Rate (SAR). DoT has notified for compliance of mobile handsets being manufactured in India as well as the handsets being imported to conform to SAR limit of 2 W/kg localised for head and trunk in the frequency range of 10 MHz to 10 Ghz. Laboratory has been set up for testing of SAR value of mobile handsets imported/manufactured in India. Considering the media reports and public concerns, an Inter-Ministerial Committee (IMC) consisting of officers from DoT, Indian Council of Medical Research (Ministry of Health), Department of Biotechnology and Ministry of Environment and Forest was constituted on 24.8.2010 to examine the effect of EMF Radiation from base stations and mobile phones. The said Inter-ministerial Committee has examined the environmental and health related concerns and adjudicated that most of the laboratory studies were unable to find a direct link between exposure to radio frequency radiation and health and the scientific studies as yet have not been able to confirm a cause and effect relationship between radio frequency radiation and health. The effect of emission from cell phones is not known yet with certainty. It is further contended that the Inter-ministerial

Committee has examined 90 international and national studies/reference papers related with the EMF radiation before finalizing the report. The action has been taken by DoT for implementation of the recommendations of the Inter-Ministerial Committee; norms for exposure limit for the Radio Frequency Field (Base Station Emissions) has been reduced to 1/10th of the existing limits prescribed by ICNIRP and directions in this regard has been issued to Mobile Operators. RF network is required to be readjusted to meet the quality of services parameters. The effects of revised EMF exposure limit, if any, on wider exclusion zone and reduction in mobile coverage area are being examined by DoT; the date of implementation of reduced EMF norms has now been extended to 1.9.2012 and letter in this regard has been issued on 10.4.2012, SAR level for mobile handset has been revised from 2 watt per kg. to 1.6 watt per kg. and directions in this regard including other recommendations related to mobile handset have been issued to mobile handset manufacturers.

Confounding View of Supreme Court

Supreme Courts restrictive approach of sustainable development could be observed in some cases. In T.N. Godavarman Thirumalpad v. Union of India and Ors. AIR 2002 10 SCC 606 Supreme Court said that it cannot be disputed that no development is possible without some adverse effect on the ecology and environment and the projects of public utility cannot be abandoned and it is necessary to adjust the interest of the people as well as the necessity to maintain the environment. A balance has to be struck between the two interests. Where the commercial venture or enterprise would bring in results which are far more useful for the people, difficulty of a small number of people has to be bypassed. The comparative hardship has to be balanced and the convenience and benefit to a larger section of the people has to get primacy over comparatively lesser hardship. The above paragraphs indicate that while applying the concept of "sustainable development" one has to keep in mind the "principle of proportionality" based on the concept of balance. It is an exercise in which we have to balance the priorities of development on one hand and environmental protection on the other hand. Further the decision of Kerala High Court in Reliance Infocom Ltd. v. Chemanchery Grama Panchayat AIR 2006(4) KLT 695 wherein the Division Bench of Kerala High Court held the action of panchayat cancelling the building permit issued for erecting mobile phone base station to be illegal, in the absence of any scientific data to substantiate the apprehension that transmission from mobile phone base stations would cause any risk to health. In A.P. Pollution Control Board v. Prof. M.V. Nayadu (Retd.) & Others 1999 (2) SCC 718 in which the Apex Court has laid down that High Court should not adjudicate upon correctness of technological and scientific opinions for the environment protection. It is clear that the thing which cannot be proved hazardous scientifically cannot be considered by high court.

Judicial Guidelines and Assurances

The Supreme court of India in most of the cases has passed very progressive and environment friendly decision to control the hazardous waste. But in some cases supreme court has passed its verdict to develop the economic over the interest of environment. Supreme courts approach of sustainable development in some land mark cases proves its protective contention about Environment. In Vellore Citizens' Welfare Forum v. Union of India (AIR (1996) 5 SCC 647) the Apex Court held that the State Government and the statutory authorities must anticipate, prevent and attack the causes of environmental degradation and "where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation". The 'onus of proof' is on the actor or the developer/industrialist to show that his action is environmentally benign. In our opinion, the aforesaid principles laid down by Hon'ble Supreme Court apply with much vigor when danger to human life is involved and even if scientific studies are not laying down with certainty as to effect of low EMF radiation, the precautionary approach is the call of the day, it cannot be postponed at all. We cannot permit experimentation on human life, more so thinking nobly that there would be no violation in the gaga scenario we are, though we survive on hopes but it cannot be at the mercy of service providers.

The High court of Jaipur recently considered the harmful effect of the mobile tower and its dangerous effects of radiations and following guidelines are issued (In Case *Association Of Unified Tele Ors vs State* (Local Self Dep)Ors on 27 November, 2012 the order passed by the High Court of Judicature for Rajasthan).

The towers from hospitals should be removed within a period of two months. The towers from Colleges should also be removed within two months. That since State Government has fixed the time for removal of towers within vicinity of 500 meters from the jail premises within six months let it be implemented within the time prescribed by the State Government in its order and bye-laws dated 31.8.2012. In case any tower is existing near ancient monuments or old heritage building, the removal would be considered by the State Government and local authorities concerned examining on facts on individual basis whether removal is necessary or not. The towers on playgrounds may also be looked into and appropriate action should be taken within two months from today. The High Court of Rajasthan further ordered in that with respect to mobile handsets and issue of clearance for installation of mobile towers, guidelines issued by DoT to be strictly enforced. That public should be educated and made aware of different mobile sets in use whether they are

as per norms or not. Public be also informed about ill-effects of mobile handsets and towers and precautions which are necessary as per guidelines issued by Dot. In this regard, let steps be taken by DoT and COAI etc. to advertise them by different modes of communications. That the State Government and the Local Authorities to take decision on case wise basis with regard to installation of towers in the densely populated areas in accordance with law. Considering individual grievance, they can order removal of dangerous towers which are not established as per norms and are erected without the permission. Thus, we give liberty to the petitioners in the public interest litigation to approach the State Government/Local bodies in this regard. Court ordered that as the regulatory body has been framed by the Central Government in the form of Telecom Enforcement, Resource and Monitoring (TERM) Cells, the Government may consider whether it is appropriate to change its constitution by including the member of general public so as to generate confidence in the public. That with respect to constant monitoring etc., requisite directions have been issued by DoT and in the report of Inter-Ministerial Committee which has been accepted by the Government of India be implemented as early as possible. That while granting permission for installation of towers, the concerned bodies to consider number of mobile towers in area, what would be the effect on the health of people in case towers are permitted to be erected and to minutely consider various other safeguards.

Principles established by Judiciary of Environmental Law confronted to Hazardous wastes emission

Everyone has a right to life under Article 21 of Constitution of India. Article 21 of the Constitution of India also ensures that the citizens have a fundamental right to live decently unaffected by pollution (Established in *M.C. Mehta v. Union of India*, AIR 1988 SC 1037, *Virender Gaur & Ors. v. State of Haryana & Ors.*, 1995 (2) SCC 577 and *CERC v. Union of India*, AIR 1995 SC 922). The parliament of India has to ensure this fundamental right. So far we don't have perfect legislation in this regard. The supreme court of India has passed some guidelines in the absence of adequate environmental legislation which has become laws of Land of India.

Polluter to Pay:

In *Case Vellore Citizens' Welfare Forum v. Union of India* (AIR (1996) 5 SCC pp. 657-60, paras 10-14) Supreme Court of India has dealt with the concept of sustainable development and has specifically accepted The Precautionary Principle and The Polluter Pays Principle as part of the environmental laws.

The traditional concept that development and ecology are opposed to each other is no longer acceptable. Sustainable Development is the answer. In the international sphere, Sustainable Development as a concept came to be known for the first time in the Stockholm Declaration of 1972. Thereafter, in 1987 the concept was given a definite shape by the World Commission on Environment and Development in its report called *Our Common Future*. The Commission was chaired by the then Prime Minister of Norway, Ms G.H. Brundtland and as such the report is popularly known as *Brundtland Report*. In 1991 the World Conservation Union, United Nations Environment Programme and Worldwide Fund for Nature, jointly came out with a document called *Caring for the Earth* which is a strategy for sustainable living. Finally, came the Earth Summit held in June 1992 at Rio which saw the largest gathering of world leaders ever in the history deliberating and chalking out a blueprint for the survival of the planet. Among the tangible achievements of the Rio Conference was the signing of two conventions, one on biological diversity and another on climate change. These conventions were signed by 153 nations. The delegates also approved by consensus three non-binding documents namely, a *Statement on Forestry Principles*, a *declaration of principles on environmental policy and development initiatives* and *Agenda 21*, a programme of action into the next century in areas like poverty, population and pollution. During the two decades from Stockholm to Rio Sustainable Development has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting ecosystems. Sustainable Development as defined by the *Brundtland Report* means Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. We have no hesitation in holding that Sustainable Development as a balancing concept between ecology and development has been accepted as a part of the customary international law though its salient features have yet to be finalised by the international law jurists. Some of the salient principles of Sustainable Development, as culled out from *Brundtland Report* and other international documents, are *Inter-Generational Equity*, *Use and Conservation of Natural Resources*, *Environmental Protection*, the *Precautionary Principle*, *Polluter Pays Principle*, *Obligation to Assist and Cooperate*, *Eradication of Poverty and Financial Assistance to the developing countries*. We are, however, of the view that the *Precautionary Principle* and the *Polluter Pays Principle* are essential features of Sustainable Development. The *Precautionary Principle* in the context of the municipal law means (*Vellore Citizens' Welfare Forum vs. Union of India & Ors.*, 1996 (5) SCC 647):

- i. Environmental measures by the State Government and the statutory authorities must anticipate, prevent and attack the causes of environmental degradation.
- ii. Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

- iii. The onus of proof is on the actor or the developer/ industrialist to show that his action is environmentally benign. But on the contrary the court also guided that principle of “polluter to pay” cannot be applied unless a finding has been given that the industrial unit concerned is the polluter (Vellore Citizens’ Welfare Forum vs. Union of India & Ors., 1996 (5) SCC 647).

The measure of compensation must be co-related to the magnitude and capacity of the enterprise because such compensation must have a deterrent effect and such damage not only extends to restitution for the harm to the environment to compensate the victims of the pollution but also cost of restoring the environment by degradation (M.C. Mehta vs. Union of India, 1987 (1) SCC 395). But in 2004 Supreme Court guided that the violation of law is not enough to impose the compensation. In case Deepak Nitrite Ltd. v. State of Gujarat and Others ((2004) 6 SCC 402) Supreme Court said that “*mere violation of the law in not observing the norms would result in degradation of environment would not be correct*” is evidently confined to the facts of that case. In the said case the fact that the industrial units had not conformed with the standards prescribed by the pollution control board was not in dispute but there was no finding that the said circumstance had caused damage to environment. The decision also cannot be said to have laid down a proposition that in absence of actual degradation of environment by the offending activities, the payment for repair on application of the polluter pays principle cannot be ordered.

Neither strict nor absolute liability only protection liability

The rule in Rylands v. Fletcher laid down the principle of liability that if a person who brings on to his land and collects and keeps there anything likely to do harm and such thing escapes and does damage to another, he is liable to compensate for the damage caused. This rule applies only to non-natural user of the land and it does not apply to things naturally on the land or where the escape is due to an act of God and an act of a stranger or the default of the person injured or where the thing which escapes is present by the consent of the person injured or in certain cases where there is a statutory authority. This rule evolved in the 19th century at a time when all the developments of science and technology had not taken place cannot afford any guidance in evolving any standard of liability consistent with the constitutional norms and the needs of the present day economy and social structure. In a modern industrial society with highly developed scientific knowledge and technology where hazardous or inherently dangerous industries are necessary to be carried on as part of the developmental programme, Court should not feel inhibited by this rule merely because the new law does not recognize the rule of strict and absolute liability in case of an enterprise engaged in hazardous and dangerous activity. Law has to grow in order to satisfy the needs of the fast-changing society and keep abreast with the economic developments taking place in the country. Law cannot afford to remain static. The Court cannot allow judicial thinking to be constricted by reference to the law as it prevails in England or in any other foreign country. Though the Court should be prepared to receive light from whatever source it comes but it has to build up its own jurisprudence. It has to evolve new principles and lay down new norms which would adequately deal with the new problems which arise in a highly industrialized economy. If it is found that it is necessary to construct a new principle of liability to deal with an unusual situation which has arisen and which is likely to arise in future on account of hazardous or inherently dangerous industries which are concomitant to an industrial economy, the Court should not hesitate to evolve such principle of liability because it has not been so done in England. An enterprise which is engaged in a hazardous or inherently dangerous industry which poses a potential threat to the health and safety of the persons working in the factory and residing in the surrounding areas owes an absolute and non-delegable duty to the community to ensure that no harm results to anyone. The enterprise must be held to be under an obligation to provide that the hazardous or inherently dangerous activity in which it is engaged must be conducted with the highest standards of safety and if any harm results to anyone on account of an accident in the operation of such activity resulting, for example, in escape of toxic gas the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident as a part of the social cost for carrying on such activity, regardless of whether it is carried on carefully or not. Such liability is not subject to any of the exceptions which operate vis-à-vis the tortious principle of strict liability under the rule in Rylands v. Fletcher. If the enterprise is permitted to carry on a hazardous or inherently dangerous activity for its profit, the law must presume that such permission is conditional on the enterprise absorbing the cost of any accident arising on account of such activity as an appropriate item of its overheads. The enterprise alone has the resource to discover and guard against hazards or dangers and to provide warning against potential hazards (M.C.Mehta and Anr. v. Union of India and Others (1987) 1 SCC 395). If the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. The rule is premised upon the very nature of the activity carried on (Enviro-Legal Action v. Union of India (1996) 3 SCC p.256 , para 65).

Conclusion

With the development of the society our hazardous waste emissions are being increased day-after-day. It is difficult to develop alternative technology for total elimination of hazardous emission generation. In developing countries, the thrust on economic development is often given priority to production costs than the best available technology and these results in more wastes generation. It has become a liability on the society to reduce the services generating radioactive hazards. The MoEF has elaborately identified

various treatment and disposal options of different hazardous waste streams that include physical or chemical treatment, landfill, biological treatment, incineration, recycle and recovery and solidification etc. the polluting industries must be absolutely liable to compensate for the harm caused by them to public at large in the affected area, to the air, soil and to the underground water and hence, they should be bound to take all necessary measures to remove sludge and other pollutants lying in the affected areas. The 'Polluter Pays Principle' as interpreted by Supreme Court means that the absolute liability for harm to the environment extends not only to compensate the victim of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is part of the process of 'Sustainable Development' and as such the polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology.

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Directive Principles under constitution of India 1950

Duties under the constitution of India 1950

Enviro-Legal Action v. Union of India (1996) 3 SCC p. 256 , para 65

Established in M.C. Mehta v. Union of India, AIR 1988 SC 1037, Virender Gaur & Ors. Vs. State of Haryana & Ors., 1995 (2) SCC 577 and CERC vs. Union of India, AIR 1995 SC 922

In Case *Association Of Unified Tele Ors v. State* (Local Self Dep)Ors on 27 November 2012 the order passed By The High Court of Judicature for Rajasthan At Jaipur Bench Jaipur

In exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government made the rules called the Hazardous Wastes (Management and Handling) Rules, 1989.

In M.C.Mehta and Anr. v. Union of India and Others [(1987) 1 SCC 395

Lakshman Guruswamy, International Environmental Law in a Nutshell, St Paul, West Publishing Co., 2007

M.C. Mehta vs. Union of India, 1987 (1) SCC 395

Right to life and liberty under Fundamental Rights provided by the constitution of India 1950.

United Nations Millennium Declaration, Doc A/Res/55/2, adopted by the General Assembly, 13 September

Vellore Citizens' Welfare Forum v. Union of India & Ors., 1996 (5) SCC 647