

SPECIAL LEGISLATIVE PROVISIONS

The environmental law appears to be a recent invention, but it is not a sudden creation. The references to various aspects of environment have been a tradition of Indian society. Worshipping nature as deity and revering the earth as mother shows the kind of conservation ethics that comes to us through our history, culture, religion and Vedic philosophy. There are certain general enactments, which provide provision for the prevention and control of environment pollution. Some of the general legislation where provision for environment protection may be traced are The Indian Penal Code 1860, The Criminal Procedure Code 1973, The Police Act 1861, The Easement Act etc. However, these codified laws have been typical of British Administrative System and may be regarded as Colonial vintage.

The United Nations Conference on Human Environment at Stockholm in June 1972 is a watershed in the history of environment policy-making in several nations who participated in the Conference. India being a signatory in the Conference was the only Country to include the policy of environment protection in its national Constitution. India has also witnessed the enactment of several legislations on environment. Among the Special legislation on environment the following legislations are dealing with air pollution: -

- 1] The Air (Prevention and Control of Pollution) Act, 1981 and Rules.
- 2] The Environment (Protection) Act, 1986 and Rules.
- 3] The Motor Vehicles Act, 1988 and Rules.

The Environment (Protection) Act mentioned above was enacted as a response to a widely felt need for a general legislation for environment protection. It is an umbrella legislation which was enacted to assume a lead role for studying, planning and implementing long term requirements of environment safety and to give direction to and co-ordinate a system of speedy and adequate response to emergency situations threatening the environment. Primarily, all power under this Act vest with the Central Government and the authorities constituted by the Central Government.¹ These include the power to take measures to protect and improve environment, power to lay down the standards of quality of air, water or soil for various purposes and areas, the maximum allowable limits of concentration of various environmental pollutants, prohibition and restrictions on location of industries. The Central Government also has the authority to make rule in exercise of any or all of these powers.² It is under the powers so delegated under the Environment Protection Act that the Central Government came up with the following Rules:

- 1] Noise Pollution (Regulation and Control) Rules, 2000.
- 2] Ozone Depleting Substances (Regulation and Control) Rules 2000.
- 3] Hazardous Wastes (Management and Handling) Rules;
- 4] Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- 5] Hazardous Micro-organisms Rules, 1989;
- 6] Bio-Medical Waste (Management and Handling) Rules, 1998;
- 7] Municipal Solid Wastes (Management and Handling) Rules, 2000;
- 8] Environmental (Siting for Industrial Projects) Rules, 1999.

The portions relevant to Air Pollution under this Act shall be studied hereunder.

¹Section 3 (3) and 23

²Sections 6 and 25

5.1. The Air (Prevention and Control of Pollution) Act 1981

The environmental degradation is a result of modern technological development. Rapid industrialization and urbanization has affected nature's equilibrium. Besides poverty and population has also contributed to make the problem acute day by day in India. The alarming situation may be referred to the increasing ration of Carbon dioxide in the environment the depletion of Ozone layer and the global warning of atmosphere.

The early enactments were mostly colonial vintage and piecemeal legislations. These legislation did not have effective provisions of Indian Penal Code, 1860, Code of Criminal Procedure 1998, only some legal providing relating to the instances of essence had tooth and nail, but did not have comprehensive legislation to deal with the problem of air pollution.

The pressing problem of air pollution and to fulfill the obligation of parliament, which arose due to the resolution, passed at United Nation conference on Human Environment at Stockholm in June 1972 in which India was a signatory, led to the enactment of the Air (Prevention and Counter of Pollution) Act of 1981. Involving the Central Government's power under Article 253 to make laws implementing decisions taken at International Conference passed the Act. Although a Central Statute, executive functions under the Air Act are carried out in the states by State pollution Control Boards. This delegation of executive functions is permitted by Act 258 (2) of the Constitution. Act 258 (3) requires the Central Government to compensate the states for the post of carrying out these delegated functions.

The Air Act of 1981, as amended in 1987, contains several interesting features, which shall be discussed hereunder. This Act is applicable to the whole of India. The Act aims to achieve the following goals:

- (i) To provide for the prevention, control and abatement air pollution.
- (ii) to establish Boards for carrying out the abovementioned purposes;

- (iii) to confer on and assign to such Boards powers and functions relating their to; and
- (iv) to lay down standards to maintain the quality of air.

5.1.(i).Air Pollution: Definition and Causes

The Act defines "air pollutant" under section 2 (a). The term "air pollutant" means any solid, liquid or gaseous substance [(including noise)]³ Present the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment Sec 2(b) defines "air pollution" as it means the presence in the atmosphere of any air pollutant. Therefore, if the concentration of any substance on element in air to more than a certain value, it may appeal man, living creative and property, directly or indirectly may be termed as air pollution. The definition does not provide for the standard for the quality of air on the rules on which a person would embalm upon to ascertain the standard Para. The definition puts stress on two things (i) the high concentration of solid liquid or gaseous substance including sound at a very high pitch (known as noise) and (ii) the substance should tend to be injurious to human beings, flora, fauna, property or environment. Therefore, small quantities of pollutant as it is considered to be within the permissible are tolerable limit under the Act. It is interesting to note than most pollutant which are released in permissible limit to considered not to be deleterious or injurious to the health of human beings, fauna, flora, property or environment and keeping it in mind the legislation endeavors to maintain pollution only to outdoors i.e. ambient air Unfortunately it is seen that most of the people spend more than 90% time indoors in their homes, educational institutions, officers and theatres. Thus, fumes in kitchen smoking, in closed office rooms, malodorous emissions in an auditorium etc. are not covered under the definition of air pollution. Studies show that schools have problems lined to indoor air quality. Students are at greater risk because of

³ wef, 1.4. 1998

the hours spent in School facilities and because children are especially susceptible to pollutants. Common indoor plants may provide a valuable weapon in the fight against rising level of indoor air pollution. Those plants in the office or home are not only decorative, but scientists are finding them sweepingly useful in absorbing potentially harmful gases and cleaning the air inside modern building. There are other combination of factors (building design/energy conservation features, operating decision and maintenance procedures), coupled with a vast kind of contaminant sources found in modern buildings. Air conditioners and refrigerators are also the source of ozone depleting pollutants the CFCs. They cause many air borne diseases which frequently creates conditions in which contaminant are concentrated and inhaled by occupants. Indoor Air Quality (IAQ) complaint range from relatively minor complaints to debilitating respiratory diseases and even death. Nowhere are these problems more acute than in hospitals. ⁴These problems have not created any concern in the legislation of the Air Act. The studies by the National Institute of Occupational safety and Health have shown that more than 50 percent of the IAQ complaints can be related to various ventilation system problems that may divided into three categories: design, operation and maintenance. In India, the Factories Act⁵ covers the IAQ in workplace relating to industrial workers, but some steps through legislation should be taken for the other places where there is several Indoor Air pollution. There may be rules framed directing the municipal corporations and other authorities to look into this aspect when the administrative authorities that have been entrusted with the duty of passing the building plans. In order to have a pro active air quality monitoring programme to prevent Indoor Air Quality. The building plan should be permitted by keeping in mind the pure zone approach to indoor air quality which includes the following steps:

1. Provide adequate outdoor air while recovering minimum energy.

⁴ Purohit Kakruni, Air Environment and Pollution agrobios india at pg 144,130

⁵ Under chapter 4

2. Deliver proper mixture of percolated and fresh air to meet occupant requirement
3. Distribute air within spaces to insure proper air movement and eliminate stagnation and stratification.

Along with the aforesaid measures, some more air pollution monitoring programmed should be undertaken to reduce indoor air pollution and create general awareness among public. Public must be encouraged to avoid smoking as far as practicable, in closed rooms, should be encouraged. Use of Bleaching powder on cockroaches, because it is effective harmless to human being and rest, avoid spraying of pesticides or any type of aerosol in the house because children below the age of 5 years are easy victims of pesticide poisoning. Children's room and bed room, colour T.V. should be viewed eight feet away from the place of location, Air Conditioners and refrigerators should be checked to avoid leakage of CFC, Dry-cleaned clothes should be aired thoroughly outside the house before wearing or hanging in wardrobes. Stoves (kerosene/gas) should get regularly checked, paint and distemper on wall should be free from pesticide or fungicide. While using hair sprays eyes and mouth should be covered to check indoor pollution⁶. The issue of Indoor Air Quality is relatively recent, but is a matter that should receive considerable attention in India, in areas where there is rapid industrialization and urbanization. Not only the Urban Areas some planning is required in villages where people recede in sub human condition. The tendency to legislate only after crises like Bhopal takes place must be given up and some steps should be taken before there is rise in building related illness and other health hazards.

An analysis of air pollution clarifies that the problem of noise was also covered within the definition of air pollutants by subsequent amendment It suggests that besides substance sound the propagation of pressure wave has been included to Air pollutants. Include the exposure to radiations from radioactive substances causing health hazards presence of hazardous

⁶Supra note 3

microorganisms in the atmosphere causing harm to the Human beings fauna or flora and property needs to be included in the definition although the rules regulate it were issued under the Environment Protection Act. These need to be included as air pollutant to have a comprehensive definition. The other main definitions of the Act as follows:

(i) 'Emission according to the Act means 'any solid or liquid or gaseous substance coming out of chimney, duct or flue or any other outlet. (Section 2 'j')

(ii) 'Approved appliance according to sec 2 (c) has been defined to mean 'any equipment or gadget used for bringing of any combustible material or for generating or conceding any fume, gas or particulate matter and approved by the State Board for the purpose of this Act.'

(iii) 'Approved fuel has been defined under Sec 2 (d) as any fuel approved by the State Board for the purpose of this Act and

(iv) An 'automobile,' according to Sec 2(c) of the Air Act, means 'any vehicle powered either by internal combustion engine or by any method of generating power to drive such vehicle by burning fuel.'

(v) "Chimney" includes any structure with an opening or outlet from or through which any air pollutant may be emitted as defined under Sec 2(h) of the Act.

(vi) "Industrial plant" under 2 (I) means any plant used for any industrial or trade purposes and emitting may air pollutant into the atmosphere.

(vii) "Occupier", according to Sec 2 (m), in relation to any factory or premises, means the person who has controlled over the affairs of the factory or the premises, and include in relation to any substance, the person in possession of the substance.

Therefore the legal definition of air pollutant is the presence in the atmosphere (outdoors) any substances or contaminants put there by man in quantities or concentration⁷ and of duration as to cause any discomfort to of

⁷ Standards are prescribed in respect of noise emission of smoke vapour and such other things in environment

the inhabitants of a locality or which are injurious to public health or safety of human plant or animal life or property.

5.1.(ii).Authority of the Board under the Air Act.

The Air Pollution Control legislation envisage the setting up of Air Pollution Controlled Boards at Centre as well as in the state for the prevention and control of Air Pollution Chapter II, which runs from section 3 to 15, provides for the Constitution of a Board, qualification of its members, terms and conditions of their services, meetings, vacation of seats and temporary association of persons with the Board, etc. Section 3 empowers the Central Board for the Prevention and control of water (Prevention and control of pollution) Act, 1974 to exercise the powers and perform functions of the Central Board for the prevention and Control of Air pollution under this Act. This provision of the Act envisages an integrated approach for tackling the environmental pollution problems. Section 4 provides that the State Boards for the prevention and control of water pollution under the Water (prevention and control of pollution) Act, 1974, shall also exercise the powers and perform functions of State Boards for the prevention and control of air pollution under this Act.

The provision for the constitution of a state board for controlling air pollution for such State which do not have State Board for the prevention and control of water pollution under the water (Prevention and control of pollution/ Act 1974, have been provided⁸ under section 5. The section under sub section (2) further provides the state Board shall consist of the following members, namely:

- (a) a chairman, being a person having special knowledge or practical experience in respect of matters relating to environmental protection, to be nominated by the State Government provided that the chairman may either whole time or part-time as the State Government may think fit.

⁸ Under section 5 of Air (Prevention and Control of Pollution) Act, 1981

(b) such number of officials, not exceeding five as the State Government may think fit, to be nominated by the State Government to represent that government.

(c) such number of persons, not exceeding five, as the State Government may think fit, to be nominated by the State Government from amongst the numbers of local authorities functioning within the State.

(d) such number of non-officials, not exceeding three, as the State Government may think fit to be nominated by the State Government to represent the interests of agriculture, history or industry or trade or labor or any other interest, which in the opinion of that Government, ought to be represented.

(e) two persons to represent the companies or corporations owned, controlled or managed by the State Government, to be nominated by that Government.

(f) a full-time number-secretary having such qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control as may be prescribed, to be appointed by the State Government.

Provided that the State Government shall ensure that not less than two of the members are persons having special knowledge or practical experience in respect of matters relating to the improvement of the quality of air or the prevention, control or abatement of air pollution.

Every State Board constituted under this Act shall be a body corporate with the name specified by the State Government in the notification issued under sub section (1) having perpetual succession and Common Seal with power, subject to provisions of this Act, to acquire and dispose of property and to contract, and may by the said name sue or be sued⁹. Thus, the Board has been declared as a 'legal person' under the Air Act.

The Air (Prevention and Control of Pollution) Rules 1987, was enacted by the Central Government in consultation with the Central Board for the Prevention and Control of water pollution in exercise of the powers conferred

⁹ Sec 5, Sub Sec (3)

by Sec 53¹⁰ of the Air (Prevention and Control of Pollution) Act, 1981. The rules provide the procedure for transaction of business of the Board and its Committees under Chapter II and the other rules for budget of the Central Board, Annual Report has also been provided under the rules. The Act¹¹ further provides that the Central Board shall also exercise the power and functions of State Boards in Union Territories; or it may delegate such powers and functions to any person or body of persons as the Central Government may specify¹².

The terms and Conditions of service of members is provided under Section 7 of the Act. This section runs as follows: -

(1) Save as otherwise provided by or under this Act, a member of a State Board constituted under this Act, other than the member secretary shall hold office for a term of three years from the date on which his nomination is notified in the official Gazettes;

Provided that a member shall, notwithstanding expiration of his term, continue to hold office until his successor enters upon his office.

(2) The term of office of a member of a State Board constituted under this Act and nominated under cl (b) or cl (e) of Sub section (2) of Section 5, shall come to an end as soon as he ceases to hold the office under the State Government or, as the case may be, the company or corporation owned, controlled or managed by the State Government, by virtue of which he was nominated.

(3) A member of a State Board constituted under this Act, other than the member-secretary, may at any time resign his office by writing under his hand addressed,

(a) in the case of Chairman, to the State Government, and

(b) in any other case to the Chairman of the State Board, and the seat of the chairman or such other member shall thereupon become vacant.

¹⁰ This sec empowers the Central Government to make rules.

¹¹ The Air (Prevention and Control of Pollution) Act 1981.

¹² Section 6.

(4) A member of a State Board constituted under this Act, other than member-secretary, shall be deemed to have vacated his seat, if he is absent without reason, sufficient in the opinion of the State Board, from three consecutive meetings of the State Board or where he is nominated under clause(c) of Sub-section (2) of Section 5, he ceases to be a member of the local authority and such vacation of seat shall, in either case, take effect from such date as the State Government may, by notification in the official Gazette, specify.

(5) A casual vacancy in a State Board constituted under this Act shall be filled by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term for which the member whose place he takes was nominated.

(6) A member of a State Board constituted under this Act shall be eligible for re-nomination.

(7) The other terms and conditions of the service of the Chairman and other members except the member-secretary of a State Board constituted under this Act shall be such as may be prescribed.

The provisions provided under the Act shows an overdose of official representation in the composition of the Board. The rationale behind having members from agriculture, fishery, industry or other interests into an agency intended to make decisions on air quality standards cannot be understood, because public sector companies or corporations may themselves be polluters and potential polluters. There have been questions raised on their representation on the Board. Doubts have also been raised as to whether the Board would be in a position to function effectively and independently when it takes decisions against the interests of government as¹³ majority of the seventeen members are nominated by the State Government in the State Pollution Control Board and similar nominated member are there nominated by the Central Government in the Central Pollution Control Board.

¹³ VSChandrasekharan, 'Structure and Functioning of Environment Protection Agency: A Fresh look in P. Leelakrishnan, Environmental Law in India Butterworths India, New Delhi, 1999.

The various disqualifications of the Board's member is mentioned under Section 8, that provides: (1) No person shall be a member of a State Board constituted under this Act, who-

- (a) is, or at any time has been adjudged insolvent, or
- (b) is of unsound mind and has been so declared by a competent Court, or
- (c) is, or has been convicted of an offence which, in the opinion of the State Government, involves moral turpitude, or
- (d) is, or at any time has been convicted of an offence under this Act, or
- (e) has directly or indirectly, by himself or by any partner, any share or interest in any firm or company carrying on the business of manufacture, sale, or hire of machinery, industrial plant, control equipment or any other apparatus for the improvement of the quality of air or for the prevention, control or abatement of air pollution, or
- (f) is a director or a Secretary, manager or other salaried officer or employee of any company or firm having any contract with the Board, or with the Government constituting the Board or with a local authority in the State, or with a company or corporation owned, controlled or managed by the Government, for carrying out of programmes for the improvement of the quality of air or for the prevention, control or abatement of air pollution, or
- (g) has so abused, in the opinion of the State Government, his position as a member, as to render his continuance on the State Board detrimental to the interests of the general public

The State Government shall by order in writing, remove any member who is, or has become, subject to any disqualification mentioned in Sub-section (1)¹⁴. Provided that no order of removal shall be made by the State Government under this Section unless the member concerned has been given a reasonable opportunity of showing cause against the same. A member who has been removed under this Section shall not be eligible to continue to hold office until his successors enter upon his office, or, as the case may be, for renominate as a member.

¹⁴ Section 8(2)

If a member becomes subject to any disqualification mentioned above, his seat shall be vacated¹⁵. Section 13 of the Act provides that no Act or proceedings of a Board or any committee thereof shall be called in question on the ground merely of the existence of any vacancy in, or any defect in the constitution of the Board or such committee as the case may be. The Supreme Court in *State of Manipur v Chandram Manihar Singh*¹⁶ has made clear that a casual vacancy in a Board shall be filled by a fresh nomination and the person nominated and the person nominated to fill the vacancy shall hold office for the remainder of the term for which the member in whose place he was nominated was to hold his office.

The provision for meeting of Board has been laid down under Section 10 of the Air Act. It provides that the Board shall meet at least once in every three months, and shall observe such rules of procedure in its meetings as provided under the Air (Prevention and Control of Pollution) Rules, 1982. The Chairman may also convene a meeting at any time he thinks fit for an urgent work to be transacted¹⁷. Copies of the minutes of the meeting shall always be forwarded to the Central Board and to the State Government. The Board has also been empowered to constitute a committee consisting wholly or partly of members of the Board for any purpose or purposes as it thinks fit¹⁸. A committee so constituted shall meet at such time and at such place and shall follow the prescribed rules for its transaction of business¹⁹. Its members shall be paid such fees and allowances for attending the meetings as prescribed²⁰.

Authority of Board to have temporary association of person

A Board is also authorized to have temporary association of persons with Board for particular purposes Section 12 subsection (1) of the act

¹⁵ Section 9

¹⁶ AIR 1999 SC 3730, 3732

¹⁷ Section 10

¹⁸ Section 11(1)

¹⁹ Section 11(2)

²⁰ Section 11(3)

provides that a Board may associate itself with any person whose assistance or advice it desires to obtain, in performing any of its function, such manner and for such purposes as may be prescribed under this Act. Under subsection (2) it further laws down that such associated member shall have a right to vote at a meeting of the Board but shall not be a member for any other purpose. The associated member shall also be entitled to such fees and allowances as prescribed in the rules have been laid down under subsection (3).

The Board has, further been empowered to appoint such officers, employees as it considers necessary for its efficient functioning under this Act²¹. The method of appointment, the conditions of service and the scale of pay of the other officers 'other than the member secretary' and other employees of a state Board appointed under subsection (3) shall be such as may be determined by regulation made by the state Board under this Act²². Section 14 subsection (5) also provides that subject to be conditions as may be prescribed, a state Board may from time to time appoint any qualified person to be a consultant to the Board and pay him such salary and allowances or fees, as it thinks fit.

The provision for delegation of powers it provided under section 15. Under this section a state Board may by general or special order, delegate to the chairman or the member secretary or any other officers of the Board subject to such conditions and limitation, if any as may be specified in the order, such of its power and functions under this Act as it may deem necessary.

The procedure for transaction of business of the central Board and its committees has been laid down under chapter II of the Air (prevention and control of pollution) Rules, 1982. Sea 3 of the rules provides the provision for notice of the meeting. It requires fifteen clear day notices to be given to the member of an ordinary meeting and three day notice of a special meeting. The rules however do not provide for any provision for meeting to be held in

²¹ Section 14 Sub Section

²² Section 14 Sub Section (4)

extraordinary circumstances where immediate steps and decision of the Board is required, for some urgent necessity. There have been similar rules framed in the year 1982 and 1983 by different states for the prevention of control of Air pollution. Mention may be made as Andhra Pradesh Air (Prevention and control pollution) Rules, 1982, Gujrat Air (Prevention and control of pollution) Rules, 1983, Haryana Air (Prevention and control of pollution) Rules, 1983, Kerala Air (Prevention and control of pollution) Rules, 1982, Madhya Pradesh Air (Prevention and control of pollution) Rules, 1982, Maharashtra Air (Prevention and control of pollution) Rules, 1983, Tamil Nadu Air (Prevention and control of pollution) Rules, 1983, Uttar Pradesh Air (Prevention and control of pollution) Rules, 1983, The Air (Prevention and control of pollution) (Union territories) Rules, 1983, West Bengal Air (Prevention and control of pollution) Rules 1983. All the ten state rules mentioned above were passed through the sec. 54 of the Air (Prevention and control of pollution) Act, 1981 and these rules were passed by the Governors of the states mentioned above after consultation with their corresponding state pollution control Board. Most of these rules contain the service of the Member of the Board. Notification of Air pollution control Area, application for the consent of the Board. Manner of taking sample; Report of Analysts, State Air Laboratory.

Powers and Functions of Board

Chapter III of the Act deals with the powers and functions of Board. It consists of section 16, 17 and 18, which prescribe the power and function of the Central Pollution Control Board. Under section 16 the function of Central Board has been laid down as follows-

(1) The main function of the central Board shall be to improve the quality of air and to prevent control or abate air pollution in the country.²³

²³ Subject to the provision of this Act and with out prejudice to the performance of its function without under water (Prevention and control of pollution)

(2) causes (2) of section prescribe the following function which the control Board may perform –

(a) advice the central Government on any matter concerning the improvement of the quality of air and the prevention control or abatement of air pollution

(b) plan and cause to be executed nationwide programme for prevention control or abatement of air pollution

(c) co-ordinate the activities of the state Board and resolve disputes among them;

(d) provide technical assistance and guidance to the state Boards, carry out and sponsor investigations and research relating to problems of air pollution and prevention, control or abatement of air pollution

(dd) perform such of the functions of any State Board as may be specified in an order made under Sub-Section (2) of section 18;

(e) plan and organize the training of persons engaged or to be engaged in programmes for the prevention, control or abatement of air pollution on such terms and conditions as the Central Board may specify;

(f) Organize through mass media a comprehensive programme regarding the prevention, control and abatement of air pollution;

(g) collect, compile and publish technical and statistical data relating to air pollution and the measures devised for its effective prevention, control or abatement and prepare manuals, codes or guides relating to prevention, control or abatement of air pollution;

(h) lay down standards for the quality of air;

(i) Collect and disseminate information in respect of matters relating to air pollution;

(j) Perform such other functions as may be prescribed under clause (3) of section 16 the Central Board

The main functions of the Central Board under Sec 16 is to improve the quality of air and to prevent control or abate air pollution in the Country.²⁴ It

²⁴ It was observe by supreme Court in *M. C. Mehta Vs Union of India* Air 1997 sec 734 (Taj Trapezium case)

also specifies, in particular, certain functions of the Central Board, which inter alia, relate to laying down the standards for the quality of air and establishment of laboratories. These functions indicate that the legislation is directed against the polluting industries and the central Board has to discharge its function to prevent and control air pollution in all-possible manner.

Section 17 deals with the function of the State Boards which inter alia relate to laying down the standards of the air pollutants into the air and to plan for the prevention, control and abatement of air pollution. This section provides that subject to the provisions of this Act and without prejudice to the performance of its functions, if any under the Water (Prevention and Control of Pollution) Act, 1974, the functions of a State Board shall be-

- (a) to plan a comprehensive programme for the prevention, control or abatement of air pollution and to secure the execution thereof;
- (b) to advise the State Government on any matter concerning the prevention, control or abatement of air pollution;
- (c) to collect and disseminate information relating to air pollution;
- (d) to collaborate with Central Board in Organising the training of persons engaged or to be engaged in programmes relating to the prevention, control or abatement of air pollution and to organize mass education programme relating there to;
- (e) to inspect, at all reasonable times any control equipment industrial plant or manufacturing process and to give, by order, such directions to such persons as it may consider necessary to take steps for prevention, control or abatement of air pollution.
- (f) to inspect air pollution controlled areas at such intervals as it may think necessary, assess the quality of air there in and take steps for prevention, control or abatement of air pollution in such areas;
- (g) to lay down, in consultation with the central Board and having regard to the standards for the quality of air laid down by the central Board, standards for emission of air pollutants into the atmosphere from industrial plants and

automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or air craft.

Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

h) to advise the state Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;

(i) to perform such other functions as may be prescribed, or as may, from time to time, be entrusted to it by the central Board or the state government;

(j) to do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

A state Board may establish or recognise a laboratory to enable the state Board to perform its functions under this section efficiently

Therefore the primary function of controlling our pollution under the Air Act 1981 is reposed on the pollution control Boards and can be said to be the regulatory.

Administrative core of the controlling authority under section 3 of the Air (prevention and control of pollution) Act 1981, the Central Pollution Control Board constituted under section 3 of the water (prevention and control of pollution, Act of 1974 has also been entrusted to perform its functions for the prevention and control of air pollution. It is interesting to note that in the water Act of 1974 central Board was formed with the object of controlling water pollution. The chairman of the Board is required to have special knowledge or practical experience in respect of matters relating to the use and conservation of water pollution. The Board does not include any person having special or practical knowledge on the prevention and control of air pollution. Since the technical organization to control air pollution requires different technique it would be proper to include or add a person having

special knowledge relating to air pollution in the Board and similar provision is suggested for the state Board constituted under the water pollution Act.

Section 18 sub-see (1) provides that the central Board shall be bound by such directions in writing as the control Government may give to it and every state Board shall be bound by such directions in writing as the central Board or the state Government may give to it where there is conflict between direction given by the state government and central Board the matters shall be referred to central Government for its decision

This section manifests that the state Board shall be bound by only such directions issued by the State Government, which pertain to, the discharge of functions assigned to the state Board under section 17. Therefore, the state Government cannot issue any direction in matters, which are not within the functions assigned to the Board, and the Board is not bound to follow any such direction. The parliament has not vested any discretion with the state Board to grant any exemption to any industrial plant or class of plants. Thus where the state pollution control Board on the basis of instruction issued by the state Government exempted rice milling industry from provisions of the air Act and certain rice mill continued to operate in spite of it and was found to emit air pollutant, notification issued by the state Board was arbitrary, exemplary damages were awarded against authorities to be paid to the aggrieved parties²⁵ In another case, ²⁶ the supreme court directed the Uttar Pradesh pollution control Board (UPPCB) to inspect the site of alleged air pollution industries and to take necessary action against the industries which were causing pollution by grinding stones into powder.

Where the central Board is of the opinion that any state Board has defaulted in complying with any direction given by the central Board and as a result of which a grave emergency has arisen and it is necessary and expedient to do so in the public interest. The central Government by order can direct the central Board to perform any of such functions of the state Board in relation to such

²⁵ *K.M Gowda V state of Karnataka AIR 1998 Kant, 281*

²⁶ *Navin chemical Manufacturing and Trading Co. V New Okhala Industrial development authority 1987 All.L.J.13*

area, for such period and for such purpose as provided in the order²⁷ If any expense is incurred by the central Board in performing such functions of the state Board, as directed by the central Government, the central Government can recover them from the person, with interest, as arrears of land revenue or of public demand provided the state Board is empowered to recover such expenses from such a person. It has also been clarified that if the central Board has been directed by the central Government to perform functions of the state Board in the specified area, the state Board will not be precluded from performing its function in other area of the state.²⁸

It can be pointed out here that the members of the Board represent the Government, local authorities, industries, government undertaking etc the composition of the Board neither includes persons from technical organization who could undertake suitable technique for control of the pollutants at source nor does it include legally trained persons who could bring the machinery into action. It may be further suggested that the increasing growth of pollution in India requires the Boards to be made more powerful this is possible only when the members are nominated in the Board through an honest endeavor such members must be persons having sufficient knowledge on sustainable development and also have an urge towards development by balancing it in terms of environment. There are situations when the state Board becomes reluctant to check air pollution in these circumstances there must be agencies formed through people representative to look into the function of the state Board and draw the attention of the central Board in such circumstances. Similar provision should also be incorporated for central Board if it fails to come forward to exercise its authority

The Board shall also have the function to inform the public about the rate of surface air pollution from time to time to enable people to protect the environment from being polluted more and more. Such information would enable people to take precautions by all possible means. The provisions of

²⁷ Sec 18 (2)

²⁸ Sec 18 (3) and (4)

freedom of Information Act, 2002 must be complied with. To enable every citizen to secure access to information under the control of public authorities, consistent with public interest, in order to promote openness, transparency and accountability in administration. One must keep in mind that the environment around is also another home where we live in and it would be a prime duty of every individual to keep it clean. In 'Stockholm Declaration' too it is mentioned that every individual bears a solemn responsibility to protect and improve the environment for present and future.

5.1.(iii). Air Pollution Control Area

One of the pivotal sections in the Air Pollution Act is section 19 of the Act²⁹. It contains provisions which deal with the major regulatory mechanism contemplated by the Act. Section 19 contains provision to declare any area to be "air pollution control area." Sub section (1)³⁰ empowers the 'state Government,' in consultation with the State Board, to declare any area or areas within the state as air pollution control area/areas for the purposes of the Act. Such declaration will be made by notification in the official Gazettes in such manner as may be prescribed by the rules made under the Act. The limits of the "air control area/areas" can be altered or merged under sub section (2). With section 19(3) begins the substantive part of the section, which goes up to subsection (5). It provides that in any pollution control area, The State Government, after consultation with the State Board may-

- (a) Prohibit the use of fuel other than approved fuel.
- (b) Prohibit the use of an appliance other than an approved appliance.
- (c) Prohibit the burning of any material (not being fuel) if its burning may cause air pollution.

Notification in the official Gazette is required for all these purposes. Further, the notification laying down prohibition on non-approved fuel cannot, for its commencement, fix a date earlier than 3 months from its publication.

²⁹ Air (Prevention and Control of Pollution) Act 1981.

³⁰ Sec 19

The whole of the Union Territories of Pondicherry and Chandigarh were declared as air pollution control areas on 25-1-1988 and 2-2-1988 respectively under the above provisions. There are instances where we find that industries operating in air pollution control area after obtaining consent order from the Central Board have created hazards. One of these examples is found in *M.C. Mehta v. Union of India*³¹ (oleum gas leakage case), Where the Supreme court pointed out that if the Central Board find at any time that the conditions in the consent order, are not being complied with and the particulate matter emitted by the states of the boilers is more than 150 mg/Nm³ if will be open to the Central Board to take whatever action is appropriate under the law³².

In *Animal Feeds Diaries and chemicals limited V. Orissa State (Prevention and Control of Pollution) Board and others*³³, the Orissa High Court made it clear that the State government can declare a pollution control area, and it is the power of the State Government to prohibit pollution. It is pertinent to note that though the concept of 'Pollution Control area' is the focal point of the whole frame work of the Act, the term has nowhere been defined in the Act. It is relevant to note that even though this omission was pointed out in the course of the Rajya Sabha debates, no steps were taken to overcome the shortcoming. The Act also lays down no guidelines regarding the standards that qualify an area to be designated as a Pollution Control Area. Further, it may be pointed out that unlike the other sections in the Act, the applicability of this section, extends to not only pollution control area, but also to areas not being so designated and the significance of the section lies in the fact that it empowers the board to take action even in cases where pollution is 'apprehended to occur.'

While selecting a site from the point of air pollution control, the following factors should be taken into consideration to avoid costly control measures, improve public relations and prevent litigations.

³¹ AIR 1987 SC 965

³² Id, P 977

³³ AIR 1995 Ori 84

In general, while considering each possible site for location of a plant, the site advantage vis-a-vis the out of control air pollutants should be carefully investigated.³⁴

(i) Existing levels of air contaminants: A pre-operational survey is recommended to be practices if a new plant is to be located in an area which is already industrialized, to know the existing level of contaminants, under prevailing meteorological conditions. This type of survey gives an idea regarding the nature of pollution due to existing industries, i.e. whether the existing level of pollution is high, medium or low. The results of such a survey with respect to known operational data on the magnitude of contemplated emissions from the new sources, would provide information on the extent to which waste products could be safely discharged into the atmosphere without resulting in to much contamination.

(ii) Potential Effects in Surrounding Area: The knowledge of the specific effects of the major pollutants and land use of the area surrounding the site is necessary for site selection. The effects of contaminants likely to be discharged from the proposed industrial plant is important,' in particular, from the point of its effects on human health, animals and damage to crops. A particular pollutant discharged may be more toxic and harmful to negetation and animals than to people form example Hydrogen sulphide has little effect on vegetation but is obnoxious and even dangerous to human life in comparatively low concentrations while a rural and predominantly agricultural area is more affected by fluorides and sulphur dioxide than an urban population.

Meterological Factors and Climate: In order to minimize air pollution problems by site selection the prime factors, which have to be considered, are the climate and meteorology of the location under consideration. The dispersive ability of the air at each possible site has to be determined. Meteorological factors should be favourable for the air to dilute the pollutional

³⁴ G.S. Karkara: Environment law (1st Ed) central law publication at 27.

load down to acceptable levels of contamination. The ideal site for location of an industry is a level terrain in a region where the average wind speed is of the order of 16 km/hr. or more and where temperature inversions rarely occur.

Topographical Features: The adverse influence of topography and whether factors in relation to pollution control should be carefully considered, and critically examined, before selecting a site for a new industrial plant. This is because air movement is greatly influenced by the topography in the neighbourhood of site under consideration, like valleys, mountains etc.

Clean Air Available: Where supply of clean air is an essential requirement for some industries and factories, this aspect has to be looked into for site election. The industries and factories dealing with the manufacture of transistor, electronic components, antibiotics, and vaccines require clean air for manufacture. Also clean air is required for cooling the reactors of atomic energy plants and if polluted air were used, the impurities present would become radioactive and their escape into atmosphere would create a hazard. The location of industries in areas heavy air pollution will materially add to cleansing the air.

Planning and Zoning: In the control of air pollution proper planning and zoning of industrial areas and residential areas can play an important role. Residential areas and certain heavy industries should not be located too close to each other. It is always better to have green belt between industrial and residential areas. The concerned municipality of the industrial area should encourage the creation of green belt.

The Air Act under section 20 mentions the pollution caused by vehicular traffic is required to be controlled and for this purpose the provision under section 17(i) (g) should be complied with. In this regard, the state Government is empowered to give such instruction as may be deemed necessary to the authority incharge of motor vehicles under the Motor vehicles act, 1988 and such authority shall be bound to comply with such

instructions.³⁵ it may be mentioned that the Air Act³⁶ as its name suggests deals with any activity that pollutes the air and as such provides for steps and measures for dealing with such activities, namely, the industries, vehicles etc. But once we do well upon the Act we will find that taking into consideration the various industries and their polluting factor the pollution in totality is not considered in the act. There is little more than one section in the whole act that mentions the pollution of vehicular traffic but this is also not an active provision which acts as an instrument to penalise the erring vehicles. This section only confers upon the state board in consultation with the Central Board, the power to prescribe standards for emissions of air pollutants from vehicles and the state Government in consultation with the state Board is empowered to give instruction to the registering authority of vehicles in order to comply with the standards laid down by the state Board.

The specific section or sections related to vehicular pollution is section 17(i) (g) which states that it is the function of the state Board or rather it is the power of the state Boards to lay down in consultation with the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants or automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or an aircraft. Section of the Act seems to be more substantive in attaining the object of preserving the quality of air and preventing and controlling vehicular air pollution after taking into consideration the aforementioned section, ie. Section 17(i) (g). By virtue of these sections the state pollution Control Board in simple prescribe Standards for emission of air pollutants from vehicles (automobiles). These standards vary from place to place, urban areas have much higher standards as compared to the rural areas because of the density of traffic and such standards are followed more stringently in cities than in small rural towns as a result of the concentration of the enforcement machinery. The state Government in consultation with the state Board gives

³⁵ See *Santosh Kumar Gupta v Secretary, Ministry of*

³⁶ *Environment*, New Delhi, A.I.R. 1998 M.P.43 Supra note 27

such instruction as may be deemed necessary to ensure that such pollution standards are complied with. These instructions are given to the Motor vehicles Department connected with the registrations of Motor vehicles, and such authority shall, notwithstanding anything contained in that Act or rules made there under, be bound to comply with such instructions.

The problem of dense traffic in every city creates air pollution. Traffic is chaotic all the time in big cities. It not only emits pollutants in the air, it also creates noise and congestion for the common people. Lenient pollution law, corrupt officials, inadequate testing equipment, ignorance about the sources and effects of pollution, and lack of funds to correct dangerous situations usually exacerbate the problem. An estimated 60% of Calcutta's residents are thought to suffer from respiratory diseases linked to air pollution. Similar is the situation in other big cities in India. Thus the Motor vehicles Act, 1988 and the motor vehicles rules need to be examined in detail to find how effective is the law in controlling air pollution. These provisions shall be dealt under the Motor Vehicles Act, 1988³⁷ in a separate sub topic under this chapter.

Restrictions on use of certain industrial plants

Every industrial plant or operator within the air pollution control area is required to seek prior approval or consent of the State Board, without which it cannot work. If the industrial plant was already operating before April 1, 1988, for which no consent was necessary prior to commencement, it may continue to operate for a period of three months, if it has made an application for consent within the said period of three months and continue its work till its application is disposed of³⁸

An application for consent of the State Board under sub-section (1) mentioned above shall be accompanied by such fees as may be prescribed and it shall be made in the prescribed form containing all the particulars of the industrial

³⁷ Infra

³⁸ Sec 21 (1)

plant.³⁹ It is further provided⁴⁰ that where, any person, immediately before the declaration of any area as an air pollution control area, operates in such area any industrial plant, such person shall make the application under this subsection within such period (being not less than three months from the date of such declaration) as may be prescribed and where such person makes such application, he shall be deemed to be operating such industrial plant with the consent of the State Board until the consent applied for has been refused.

On receipt of the abovementioned application for consent, the Board shall make such enquiry as it may deem fit and shall follow such procedure as may be prescribed.⁴¹ After the receipt of an application for consent, the State Board shall within a period of four months, make an order in writing either by granting consent subject to such conditions as may be specified in the order and for such period, or refuse such consent. If the consent has been granted for a certain period, it can be cancelled before the expiry of the period if the conditions specified in the consent are not complied with. Before the canceling the consent or refusing a further consent, reasonable opportunity of being heard shall be given to the person concerned.⁴²

If consent is granted by the Board then the detailed obligation imposed by section 21 (s), 21 (6) and 21 (7) come into operation under the Act. These sections provided that every person whom consent has been granted by the State Board shall comply with the following conditions namely.

(i) the pollution equipment of such specifications as the State Board may approve in this behalf shall be installed and operated on the premises where the industry is carried on:

(ii) the existing control equipment, if any shall be altered or replaced in accordance with the directions of the State Board:

(iii) the control equipment referred to in clause (i) and (ii) shall be kept at all times in good running condition;

³⁹ Section 21 (2)

⁴⁰ Ibid

⁴¹ id Sub sec (3)

⁴² Id Sub sec (4)

(iv) chimney, wherever necessary, of such specifications as the State Board may approve in this behalf shall be erected or re-erected on such premises;

(v) such other conditions as the State Board may specify in this behalf;

(vi) conditions referred to in clause (i), (ii) and (iv) shall be complied with within such period as the State Board may specify in this behalf;

Provided that in the case of a person operating any industrial plant in an air pollution control area immediately before the date of declaration of such area as an air pollution control area, the period so specified shall not be less than six months:

Further it is provided that

(a) after the installation of any pollution control equipment in accordance with the specifications under clause (i); or

(b) after the alteration or replacement of any pollution control equipment in accordance with directions of the State Board under clause (ii); or

(c) after the erection or re-erection of any chimney under clause (iv),

no control equipment or chimney shall be altered or replaced or, as the case may be, created or re-created except

with the previous approval of the state Board .

Varying the consent

When the State Board is of opinion that due to any technological improvement or otherwise, all or any of the conditions referred to in sub-sec (5) require or requires variation including the change of any control equipment, either in whole or in part, the State Board shall after, giving the person to whom consent has been granted an opportunity of being heard, vary all or any of such conditions and thereupon such persons shall be bound to comply with the conditions as so varied⁴³.

Transfer of Consent

Where a person to whom consent has been granted by the State Board transfers his interest in the industry to any person, such consent shall be deemed to have been granted to such other person and he shall be bound to

⁴³ Sub .sec (6)

comply with all the conditions subject to which it was granted as if the consent was granted to him originally.

From the above-mentioned provisions it becomes clear that for the establishment of any industry in a pollution control area the consent from the State Board at first is required. The State Board has the power to refuse or grant consent, but the board does not have the power or discretion to exempt any industry in any pollution control area. Therefore, if an industry is emitting air pollutants, then irrespective of the extent thereto, neither the State Government nor the State Board can keep such industries out of the purview of the Act⁴⁴. Simple refusal to grant consent was held illegal by the Gauhati High Court⁴⁵. In this case M/S Mahavir Coke Industry had applied to the pollution Control Board for grant of consent for operation of their industrial unit. The Standards for emission of air pollutants were not prescribed. More so on examination was made regarding air pollutants in the manner prescribed under the Act and therefore, the issuance of the direction was held to be illegal, without jurisdiction and contrary to the provisions of law. However, this judgment appears flawed as the division bench failed to notice the provision of the Environment (Protection) Act of 1986 (EPA) and the national standards prescribed in the schedules of the Environment (Protection) Rule of 1986 (EPR) Section 24 of the EPA gives overriding force to all rules formed under the Act, Rule 3(3A) requires each and every industry, operation or process to comply with the minimum National Standard set out in schedule VI to the EPR from 1 January 1994 schedule VII, Part D contains general emission standards which would apply to coke ovens. Once these standards are notified by the Central Government, they apply nationwide, without need for State Pollution Control Boards to re-issue these standards under Air act or Water Act. The judgement is also marred by a misconstruction of Section 31A. The division bench observes a direction by the board under Section 31A may be issued only where the Central Government has first issued a direction

⁴⁴ See, Supra note 23

⁴⁵ Mahavir Coke Industry v Pollution Control Board AIR 1998 Guj, page:

in that behalf. This appears incorrect. A Central Government direction is not a condition precedent for the issue of a direction by the State Board ; but where a Board issue a direction , any such direction is 'Subject to' overriding Central Government orders⁴⁶. In *M.S.Chattisgarh H.L.Industries Vs special Area Development Authority* ⁴⁷the Pollution Control Board refused to grant permission for starting a Hydrated lime factory as it was close to a Government College and a 100 bed hospital .The Supreme Court also directed in *M.C Mehta Vs Union of India (Badkal Lake and Suraj Kund Case)* to stop mining activities within a two Km radius of the tourist resort of Badkal Lake and Suraj Kund and develop a green belt of 200 metres as the mining operations were causing air and noise pollution in these areas .while upholding it's decision the Supreme Court Opined that in order to preserve environment and control pollution within the vicinity of the two tourist resorts it is necessary to stop mining in the area .The question , however for consideration is what should be the extent of the said area? NEERI in it's has recommended that 200 metres green belt be developed at 1 K. m. radius all around the boundaries of the two lakes. It is thus obvious that twelve hundred metres are required for the green belts leaving another 800 metres as cushion to absorb the air and noise pollution generated by the mining operation. The Court therefore ordered and directed as under.

There shall be no mining activity within 2 K.m radiuses of the tourist resorts? We further direct that no construction of any tupe shall be permitted now onwards within 5 K.m radius of Badkal Lake and Suraj Kund. All open areas shall be converted into green belts. The mining leases within the area from 2 K.m to 5 K.m radius shall not be renewed without obtaining prior "no objection" certificate from the Haryana Pollution Control Board as also from the Central Pollution Control .Unless both the Boards grant no objection certificate the mining lease in the said area shall not be renewed⁴⁸. In another

⁴⁶ Divan Rosenerang: Environmental law and Policy in India, (2nd) at page

⁴⁷ AIR 1989 M.P page:

⁴⁸ AIR 1987 Kant ,82.

important case ⁴⁹, the Supreme Court of India took into consideration the application for permission to instal Hot Mix Plants in the vicinity of Indira Gandhi International Airport for a period of one year for resurfacing of runways. The application was filed by the Airport authority of India. The Hot Mix Plants which were treated as hazardous industries had been closed by the court with effect from 20 th February 1997, by the Supreme Court order and the aforesaid application was considered after the order mentioned above was passed. The Expert Committee of CPCB had categorised Hot Mix Plants as hazardous industries as the process emission from Hot Mix Plants contained particulate matter and sulphur dioxide beside toxic/carcinogenic hydrocarbon like benzene, formaldehyde, anthracene and toxin metals like lead, arsenic, mercury, cadmium and therefore as per Master Plan -2001, all noxious industries was to be shifted out from the Union Territory of Delhi. The main opposition was from M.C.Mehta

Who cited the notices issued by the United State Environment Protection Agency (USEPA) to the Hot Mix Plant for causing health hazards stating that emissions from the Hot Mix Plants can impair lung functions; specially among children and the elderly. He had cited three instance where the USPA has imposed fine up to \$43,000 for clean Air Act violation.

The application in turn filed an affidavit informing about the Use of pollution control devices used in the used in the Hot Mix Plants as the expert opinion from the Ministry of Surface Transport and the Supreme Court after considering resurfacing of Airport Runway as a work of national importance, to avoid operation hazard at the time of landing and take off, has allowed the Airport Authority of India to set up Hot Mix Plant which must possess adequate capacity environment friendly Hot Mix Plant, in the safe vicinity of the Airport at least at a distance of 3 K.ms from a populated area. Further it was directed that the Hot Mix Plant set bu the Company whose tender is accepted would be examined by the Central Pollution Control Board on the environmental feasibility, specially to ensure that the particulate matter

⁴⁹ M.C.Mehta Vs Union of India A.I.R. 1999 S.C. 2367

emission does not exceed the prescribed limited of 150 mg / Nm³ under the Rule made under the E.P. Act.

An analysis that the case gives us the impression that the Court here has tried to balanced the environmental problem with the necessity of running an International Airport in the Capital of India In doing the Supreme Court has also directed that the Hot Mix Plant set up by a company shall be examined by Central Pollution Board on environmental feasibility that the main opposition was from M.C.Mehta and therefore it may create a doubt in the mind of people as that why the Central Pollution Control Board was not putting forward the issue like the USPA? Why was it reluctant in exersing its power or putting forward all the materials available for having clean air around as? Was one of its prime duties? This Halfhearted attempt of the Central Pollution Control Board also would create doubt regarding the examination; it shall perform in ascertaining environment feasibility of the Hot Mix Plant.

In *Chaitnaya Pulvererising Industry v. State Pollution Control Board*⁵⁰ the court held that if the Board with Specific conditions has granted consent and they are not abided by, the consent could be taken back by the Board .In this case the industry failed to carry out the conditions specified in the consent order. Therefore, the court decided that action could be taken against the erring industry under Section 37 of the Act and it could be punished accordingly. But before passing any prohibitory order, the Board must also take onto consideration the problems, which may arise from closure of an industry.

In *M/S Chhatisgarh H.L. Industries Vs Spl. Area Development authority* *the petitioner had filed a writ petition for quashing of cancellation of the No Objection Certificate by the Special Area Development Authority and Town and Country Planning Authority and was also seeking for issue of No Objection certificate by the aforesaid authorities for manufacture of Hydrated Lime in it's factory and to prohibit the manufacture of Hydrated Lime. The

⁵⁰ AIR 1989 MP 82

court in this case held that the No Objection Certificate was not granted by special Area Development Authority to avoid air pollution in the area, which was declared as pollution control area on 4.6.1984 notification issued on 4.6.1984. U/S 19(1) of the Air (prevention and Control of pollution Act, 1981 and also as the Hydrated Lime factory was close to a Government College and a 100 bed hospital. It is interesting to note that the State Pollution Control Board had refused to grant Consent for starting the Hydrated lime factory at Korba on 22-2-1986, as the site according to the Board was not proper and suitable with respect to environmental condition and the development proposed in the area, but subsequently on 26-11-1987 the State Pollution Board had granted no objection certificate the High Court has raised question on the granting of no objection certificate subsequently and observed.

It is surprising how the State Pollution Control has subsequently granted No Objection Certificate when there being no change in circumstances. ... The notification declaring the area as pollution control area was issued to curb and contain the area from pollution. The authorities decided in joint meeting held on 16-1-1986 not to issue to no objection Certificate to the authority for starting hydrated lime factory as the same would cause air and water pollution. Subsequent order of the State Pollution Control Board dated as 25-11-87 is not binding on the state and the Board has not taken into account the totality of the circumstances, which might be created if the permission is granted. It is surprising that the Board which has been consistently refusing to grant No Objection Certificate all of a sudden took a topsy-turvy decision and granted the alleged no objection Certificate.

Here, from this case we find that state Board is at times not performing its duty properly. Therefore, there must be some checks and balance for assessing the work of the Board. If the work of development by the Statutory authorities are being performed properly the problem of curbing pollution would be properly done. The steps taken for curbing pollution was more effective than the pollution Control Board.

In the Case of *M.C. Mehta V Union of India*⁵¹, the plants of Shriam was situated in the air pollution Control area and the industries carried on by Shriram also fell within the schedule of industries specified in the Air Act. While consideration of question for allowing the plant to be restarted without any real regard or risk to be workmen and the public at large held that the caustic chloride plant should be allowed to be restarted subject to certain stringent condition these conditions were related safety of workmen, the deputation of a senior inspector by the Central Board to visit the plant and specified the condition that the particulate matter emitted by the states of the boiler shall not be more than 150/Nm³ and the Central Board shall inspect the site for the said purpose. In another Case⁵², the Pollution control Board has given no objection for setting up tyre retreading unit by the respondent, subject to certain conditions, but the petitioner filled as public interest litigation as she apprehended the likelihood of air noise pollution from the unit. The respondent filed an affidavit that the Industry shall undertake to follow the cold retreading process with electricity the court held that there was apprehension of any water or air pollution but heavy responsibility is on the Board to ensure that respondent commences production after fulfilling all conditions mentioned in consent letter.

The cases referred above shoe the responsibilities taken up by the pollution control Board for controlling pollution. There are cases, which give us an impression that the state Board is at time performing its functions effectively. There have been other statutory bodies and Municipal Corporation also who can join their hands and take positive steps towards environment protection through sustainable development.

Emission of air pollutants

Section 22 prohibits the discharge or emission of any pollutant by any person operating any air pollutant by any person operating any industrial plant and any air pollution control area in excess of the prescribed standards laid down

⁵¹ AIR 1987 SC. 965

⁵² Ved Kaur Chandel v. State of H.P. A.I.R. 1999 H.P., 59

by the State Board. The standards are laid down by the state Board under section 17(1) (g). Contravention of the section is punishable under section 3753.

Restraint Order

The Board is empowered to make an application for restraining persons from causing air pollution besides criminal penalties. The prohibition imposed by section 22 against emission of air pollutants in excess of standards also attracts the provisions of section 22A. Under section 22A(1), if a "Board" has an apprehension that the emission of excessive air pollutant is likely to occur in any air pollution Control area, whether either by the operation of any industrial plant or otherwise, the Board may make an application to a court, not inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the First Class for restraining such person from emitting such air pollutant. Section 22A(2) provides that on receipt of application, "the court may take such orders as it deems fit.

Sub section (3) and (4) deals with enforcement of the judicial order and express of such enforcement Sub section (3) lay down that where under sub-section(2), the Court makes an order restraining any person from discharging or causing or permitting to be discharged the emission of any air pollutant, it may in that order-

- (a) direct such person to desist from taking such as likely to cause emission.
- (b) authorise the Board, if the direction under cl (a) is not complied with by the person to whom such direction is issued, to implement the direction in such manner as may be specified by the court.

Under sub-section(4), all expenses incurred by the Board in implementing the directions of the Court under clause(b) of sub-section shall be recoverable from the person concerned as arrears of land revenue or public demand.

5.1.(IV). PROVISIONS RELATING TO INFORMATION ENTRY AND INSPECTION

⁵³ Inpra

Sections 23 to 25 of the Air Pollution Act contain certain provisions relating to power to obtain information, entry and inspection. The power to the conferred affects right of citizens.

Duty to inform

Section 23 of the Act provides where there is emission of air pollutants in excess of the standards laid down by the state Board in any 54 area or apprehension of an accident or other unforeseen act or event causing pollution, the person in charge of the premises from where such emission occurs or is apprehended to occur shall *** intimate the fact of such occurrence or the apprehension of such occurrence to the state Board and to such authorities or agencies as may be prescribed.

Action by the Board

On receipt of information and respect to fact or the apprehension of any occurrence of the nature referred to the sub section (1)⁵⁵ whether through intimation under that the sub-section or otherwise, the state Board and the authorities an agencies shall, as early as practicable, cause such remedial measures to be taken as are necessary to mitigate the emission of such air pollutants.

In Chitiayna Pulverising V.K.S.P.C. Board 56 the court held that the primary responsibility of controlling the Air Pollution is on the Board Such section(2) of section 23 casts a duty on the Board to cause such remedial measures as are necessary to mitigate the emission of air pollutants and the expenses incurred can be recovered from the person concerned as arrears.

(g) to lay down, in consultation with the central Board and having regard to the standards for the quality of air laid down by the central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or air craft.

⁵⁴ The word "air pollution control" to omitted by Act 47 of 1987 is prior to 1987 this provision was to apply only to air pollution control area.

⁵⁵ of sec 23

⁵⁶ AIR 1987 Kaut 82

Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

h) to advise the state Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;

(i) to perform such other functions as may be prescribed, or as may, from time to time, be entrusted to it by the central Board or the state government;

(j) to do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

Reports of the result of analysis on samples taken

Section 27 deals with the manner of dealing with reports of analysis on samples of emission taken under section 26. This section provides as follows:

(1) Where a sample of emission has been sent for analysis to the laboratory established or recognized by the State Board, analyst (appointed under sub-sec(2) of sec-29) shall analyse the sample and submit a report of such analysis in triplicate to the State Board.

(2) On receipt of the report under (sub-section (1)) above, one copy of the report shall be sent by the State Board to the occupier or his agent referred to in sec. 26, another copy shall be preserved for production before the court in case any legal proceedings are taken against him and the other copy shall be kept by the State Board.

(3) Where a sample has been sent for analysis under section 26 3(d) or (4) to any laboratory mentioned therein, the Government analyst referred to in the said sub-sec(4) shall analyse the sample and submit a report of the result of the analysis in triplicate to the State Board which shall comply with provisions of sub sec(2) above.

(4) Any cost incurred in getting any sample analysed at the request of occupier or his agent as provided in sec 26(3)(d) or when he willfully absents

himself or refuses to sign the marked or sealed containers of sample of emission under section 26(4), shall be payable by such occupier or his agent and in case of default the same shall be recoverable from him as arrears of land revenue or of public demand.

State Air Laboratory

Section 28(1) provides for the establishment of one or more air laboratories. It also provides that the State Government may specify one or more laboratories to carryout the functions entrusted to the State Air Laboratories under this Act 64.

Under subsection (2) the State Government may, after consultation with the State Board, make rules prescribing (a) the functions of the State Air Laboratory; (b) the procedure for the submission to the said laboratory of samples of air or emission for analysis or tests the from of laboratory's report thereon and the fees payable in respect of such report; (c) such other matters as may be necessary or expedient to enable the laboratory to carryout its functions.

Analysts

The provision for appointment of Government analysts and Board analysts is provided under section 29. The State Government may, by notification in the Official Gazettes, Appoint such persons as it thinks fit and having the prescribed qualifications to be Government analysts for the purpose of analysis of samples of air or emission sent for analysis to any laboratory established or specified under sec 28(1)57.

The State Board may, by notification in the Official Gazettes and with approval of the State Government, appoint such persons as it thinks fit and having the prescribed qualifications to be Board analysts for the purpose of analysis of samples of air or emission sent for analysis to any laboratory established or recognized under section 1758

⁵⁷ Sec 29(1)

⁵⁸ Sec. 29(2)

Reports of analysts

Under this act any document purporting to be a report signed by a Government analyst, or as the case may be a State analyst, may be used as evidence of the facts, stated therein in any proceeding, this provided under section 30.

Appeals

Section 31 deals with appeals and is summarised below:

1. Any person aggrieved by an order made by the State Board may within 30 days from the date on which the order is communicated to him, prefer an appeal to such authority as the State Government may think fit to constitute. The Appellate Authority may, however, entertain appeals beyond the period of 30 days above mentioned, if such authority is satisfied that the appellant was prevented by sufficient cause from filling the appeal in time.
2. The Appellate Authority shall consist of a single person or three persons as the State Government may think fit to be appointed.
3. The form and the manner in which appeal may be preferred under subsection(1) above, the fees payable for such appeal and the procedure to be followed by the appellate Authority shall be such as may be prescribed.
4. On receipt of an appeal preferred under sub sec(1) the Appellate Authority shall, after giving the appellate and the State Board an opportunity of being heard, dispose of the Appeal as expeditiously as possible.

Power to give directions

Section 31-A empowers a Board to issue any directions in writing to any person, officer or authority. This section provides, notwithstanding anything contained in any other law but subject to the provision of this Act, and to any direction that the Central Government may give in this behalf, a Board may, in exercise of its powers and performance of its functions under this Act, issue any directions in writing to any person, officer or authority, and such person, officer or authority shall be bound to comply with such directions.

To exercise power under this section there should be delegation of power to the concerned authority. In a *M/s Suma Traders Vs Chairman, Karnataka*

*State Pollution Control Board, Bangalore*⁵⁹. there was no delegation of power in favour of the chairman to pass order under section 31-A of the Act with regard to the chairman directed for closure of industry and also stoppage of services to the said industry. It was held by the Karnataka High Court that the order of the chairman was without jurisdiction.

In a case, instructions were issued by the State Government to the concerned authorities. The authorities did not observe the directions and the pollution continued in the big city of Gwalior. On a petition being filed the High Court issued suitable directions in the matter to bring about reduction in pollution, some of them being installation of smoke meters and gas analyzer etc.

This section therefore remains meaningless unless there is delegation of power. Therefore to make the section effective the Board has to derive its authority from the concerned Government.

5.5. Penalties, Procedures and Miscellaneous Provisions

Failure to comply with certain provisions [Sec. 37].

Section 37 provides as follows:

(1) Whoever fails to comply with the provisions of Sec. 21 or 22 or directions issued under Sec. 31 -A shall, in respect of each such failure, be punishable with imprisonment for a term which shall not be less than one and a half year but which may extend to 6 years and with fine, and in case the failure continues, with additional fine which may extend to Rs. 5000 for every day during which such failure continues after the conviction for the first such failure.

(2) If the failure continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which shall not be less than 2 years but which may extend to 7 years and with fine.

Penalties for certain acts

⁵⁹ AIR 1998 Kant. 8

Section 38 lays down that whoever does any act mentioned below shall be punishable with imprisonment for a term, which may extend 3 months, or with fine which may extend to Rs. 10000, or with both: The punishment mentioned above is for the following acts-

whoever

- (a) destroys, pulls down, removes, injures or defaces any pillar post or stake fixed in the ground or any notice or other matter put up, inscribed, or placed by or under the authority of the Board; or
- (b) obstructs any person acting under the orders or directions of the Board from exercising his powers and performing his functions under the Act; or
- (c) damage any works or property belonging to the Board; or
- (d) fails to furnish to the Board or any officer or employee to the Board any information required by the Board or such officer or employee for the purposes of the Act; or
- (e) fails to intimate the occurrence of the emission of air pollutants into the atmosphere in excess of the standards laid down by the State Board or the apprehension of such occurrence, to the State Board and other prescribed authorities or agencies as required by Sec. 23(1); or
- (f) in giving any information which he is required to give under the Act makes a statement which is false in any material particular; or
- (g) for the purposes of obtaining any consent under Sec. 21 make a statement which is false any material particular

Penalty for contravention of certain provisions

Section 39 provides that whoever contravenes any of the provisions of this Act or any order or direction issued there under, for which no penalty has been elsewhere provided in this Act, shall be punishable with imprisonment for a term which may extend to 3 months, or with fine which imprisonment for a term which may extend to 3 months, or with fine which may extend to Rs. 10000, or with both. In the case of a continuing contravention, an additional fine may be imposed which may extend to Rs. 5000 for every day

during which such contravention continues after conviction for the first such contravention.

Offences by companies

Section 40 makes provisions as regards offences by companies. This provides as follows:

(1) Where an offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly.

However, such a person shall not attract any liability to punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of any director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

For the purpose of this Section-(a) Company means any body corporate, and includes a firm or other association of individuals, and (b) director, in relation to a firm, means a partner in the firm.

Offences by Government Departments

Section 41 is concerned with offences by Government department. It provides as follows:

(1) Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to proceeded against and punished accordingly.

However, such a Head of the Department shall not attract liability to any punishment if he proves that the offence was committed without his

knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Where an offence under this Act has been committed by a Department of Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Protection of action taken in good faith

Section 42 provides that no suit, prosecution or other legal proceedings shall lie against the Government or any officer, or the Government or any member or any officer or their employee of the Board in respect of anything which is done or intended to be done in good faith in pursuance of this Act or the Rules made there under.

Cognizance of offences

This Section 43 deals with cognizance of offences and provides as follows:

(1) No court shall take cognizance of any offence under this Act except on a complaint made by-

(a) a Board or any officer authorized in this behalf by it; or

(b) any person who has given notice of not less than 60 days, in the prescribed manner, of the alleged offence and his intention to make a complaint to the Board or officer authorised as aforesaid.

Further, no court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the First Class shall try any offence punishable under this Act.

(2) Where a complaint has been made under (1) (b) above, the Board shall, on demand by such person, make available the relevant reports in its possession to the person.

However, the Board may refuse to make any such report available to such person if the same is, in its opinion, against the public interest.

Members officers, etc. of Board to be public servants

Section 44 provides that all members and all officers and other employees of a Board when acting or purporting to act in pursuance of any of the provisions of this Act or the Rules made thereunder shall be deemed to be public servants within the meaning of Sec. 21 of the Indian Penal Code, 1860.

Reports and returns

Section 45 provides that the Central Board shall, in relation to its functions under this Act, furnish to the Central

Government, and a State Board shall, in relation to its functions under this Act furnish to State government and to the central Board such reports, returns statistics, accounts and other information as that Government or, as the case may be, the Central Board may, from time to time, require.

Bar of jurisdiction

Section 46 provides that no civil court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which an Appellate Authority is empowered by or under this Act to determine, and no injunction shall be granted by any court to other authority in respect of any action taken or to be taken in pursuance of any power conferred by, or under, this Act. It may be pointed out here that this section takes away the right to sue for damages for committing nuisance etc by polluting the air.

Miscellaneous provisions.

The Act contains certain miscellaneous provisions, which are explained below:

Power to State Government to supersede State Board

Section 47 empowers the State Government to supersede a State Board constituted under this act under certain circumstances. Under section 47

This section provides as follows:

- (1) The State Government may, by notification in the Official Gazette, supersede the State Board, if, at any time, it is of opinion—

(a) The State Board constituted under this act has persistently made default in the performance of the functions imposed on it by or under this Act; or

(b) that circumstances exist which render it necessary in the public interest so to do.

The supersession can be for such period, not exceeding 6 months, as may be specified in the notification. However, before issuing a notification for the reasons mentioned in clause (a), the State Government shall give a reasonable opportunity to the State Board to show cause why it should not be superseded and shall consider the explanations and objections, if any, of the State Board.

(2) Upon the publication of a notification superseding the State Board—

(a) all the members shall, as from the date of super session, vacate their offices as such;

(b) all the powers, functions and duties which may, by under this Act, be exercised, perform or discharged by the State Board shall, until the state Board is reconstituted under (3) below, be exercised, performed or discharged by such person(s) as the State Government.

(3) On the expiration of the period of super session specified in the notifications, the State Government may—

(a) extend the period of supersession for such further term, not exceeding 6 months as it may consider necessary ; or

(2) On the dissolution of the state Board constituted under this Act—

(a) all the members shall vacate their offices as such:

(b) all moneys and other property of whatever kind (including the fund of the Stat Board) owned by or vested in the stat Board, immediately before such dissolution, shall stand transferred to and vest in the State Pollution control Board;

(c) every officer and other employee serving under the State Board, immediately before such dissolution, shall be transferred to and become an officer or other employee if the State Pollution control Board and hold office by the same tenure and at the same remuneration and on the same terms and

conditions of service as he would have held the same if the State Board constituted under this Act had not been dissolved and shall continue to do so unless and until such tenure, remuneration and terms and conditions of service are duly altered by the State Pollution Control Board.

(d) all liabilities and obligations of the State Board of whatever kind, immediately before such dissolution, shall be deemed to be the liabilities and obligations, as the case may be, of the State Pollution control Board and any proceeding or cause of action, pending or existing immediately before such dissolution by or against the State Board constituted under this Act in relation such liability or obligation may be continued and enforced by or against the State Pollution Control Board.

Maintenance of register

Section 51 deals with maintenance of a certain register and provides as follows:

(1) Every State Board shall maintain a register containing particulars of the persons to whom consent has been granted under Sec. 21, the standards for emission laid down by it in relation to each such consent and such other prescribed particulars.

(2) The register shall be open to inspection at all reasonable hours by any person interested in or affected by such standards for emission or by any other person authorized by such person in this behalf.

Effect of other laws

Section 52 provides that save as otherwise provided by or under the Atomic energy Act, 1962, in relation to radioactive air pollution, the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act.

The provisions of the Air Act 1981 are effective provided the enforcement is done efficiently. The Act, however, could not control the rise of air pollution. The Act is still considered to be effective in bringing some control. It must be seen that the Act should not remain in as a mere

consolation that we are having legislation on air pollution. The Act must be given life and vigour through proper implementation.

5.2. THE ENVIRONMENT PROTECTION ACT 1986

India, the world's second most populous nation accounts for worlds 16 per cent population, as compared to about 15 per cent a decade and half ago. This rapidly growing population along with increased economic development has placed strain on India's infrastructure, and also on country's environment. Rapid industrialization and urbanization in India's metropolises are also serious concerns. The need for preservation and improvement of human environment came to be universally recognized only after the Stockholm Declaration of 1972. India was the first country to insert an amendment into its Constitution allowing for the State to intervene and to protect public health, forest and wild life by incorporating Article 51A and 48A. Legislative and administrative efforts were also made in India to adopt some measures for environmental protection.

The initial legislative approach was fragmented and piecemeal. These legislations aimed at controlling specific types of pollution rather than preserving and protecting environment in totality. The necessity for a comprehensive legislation with integrated approach towards environmental protection was felt and it was adopted in the form of Environment Protection Act, 1986. The Act provides a law that covers not merely land or water or air but all the aspects of the environment. It may be pointed out here that the Bhopal Gas Disaster 1984, was also another incident, which brought about the need for a comprehensive legislation dealing with the environment as a whole.

5.2.(i).General Scheme of the Act

The Act gives the terms 'environment' and 'environment pollution' a very wide definition; empowers the Central Government to take strict action for non-compliance of its provisions and provides for penalties for various offences. The supremacy of the provisions of environment of the Environment Protection Act has been laid down under Section 24⁶⁰. This Act is the most comprehensive piece of legislation relating to environment. The Chapter Scheme of the Act and arrangement of the sections are as follows:

Chapter I is preliminary containing sections 1 and 2.

Chapter II deals with the General powers of the Central Government from sections 3 to 6.

Chapter III relates to the Prevention, Control and Abatement of Environment Pollution and the corresponding sections are from section 7 to 17.

Chapter IV deals with Miscellaneous subject matter under sections 18 to 26.

Definitions:

Section 2 contains definition of certain terms and phrases. It is for the first time in the world that technical definition has been provided by the Act to various terms of the environment including term 'environment'. The definition of 'environment' under the Act is inclusive and not exhaustive. According to section 2 (a) Environment is defined to include (i) water, air and land and (ii) the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property. In order to understand the definition of the term 'environment', it is necessary to look into the definitions of environment pollutant and environmental pollution. The second part of the definition viz, (ii) provides for interrelationship existing among eight elements mentioned therein. Thus it includes animate and inanimate objects and their interrelationships. In *Virendra vs State of Haryana*,⁶¹ the Supreme Court declared that the word 'environment' is of broad spectrum which brings within in ambit 'hygienic atmosphere and ecological balance.'

⁶⁰ Infra note 99

⁶¹ (1995) 2 SCC 577

The term 'environment pollutant' has been defined to mean 'any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to human health.' Therefore presence of bio-medical waste, untreated effluents, sewage sludge, city waste, etc. into the water makes it polluted. Similarly emission of various gases in impermissible limits or in excess in the air, for eg. Carbon dioxide, Carbon monoxide, Sulphur dioxide, Methane, Chloroflorocarbon, Nitrogen oxide, smoke and others make the atmosphere polluted. Environment pollution means presence in the environment of any environment pollutant.

Section 2 (c) does not specifically mention 'Noise Pollution' as environmental pollution but section 6 refers to it as pollution. Various pronouncements of Courts⁶² have made it clear. The Air (Prevention and Control of Pollution) Amendment Act of 1987 now also includes noise as air pollution. Noise, in excess, beyond permissible limits, also amounts to noise pollution. If the cracker produces more than 125 db (A1) sound, it would amount to environmental (noise) pollution as its excessiveness effects adversely human beings, animals and plants. The limit of during daytime is 55 Decibels and during night is 45 Decibels in residential area. If the noise transgresses this limit, it caused environmental pollution. Similarly, suspended particulate matter (SPM) in air in residential areas must not exceed 140 ug/m²⁸. If the concentration of SPM is beyond this limit, it amounts to atmospheric pollution or air pollution.

"Handling" is defined under section 2 (d) as "Handling" in relation to any substance means the manufacture, processing, treatment, package, storage, transportation, use, collection, and destruction, conversion offering for, transfer or the like of such substance.

Under section 2 (e) "Hazardous substance" means any substance or preparation which by reason of its chemical or physio-chemical properties or

⁶² *Burrabazar Fire Works Dealers Association vs Commissioner of Police, Calcutta*, AIR 1998 Cal 12, *Bijayanand Patra vs Dist. Magistrate Cuttak*, AIR 2000 Ori 76, *Robin Mukherjee vs State of W.B.* AIR 1985 Cal 151; *Gotham Construction Co. vs Amulya Krishna* AIR 1968 Cal 91; *Mahendra Road Residents Association vs Lt. Governor* AIR 1995 Del 195.

handling is liable to cause harm to human beings, other living creatures, plants, micro-organism, property or the environment. 'Hazardous' means 'risky' or 'dangerous'. Therefore, any substance which is likely to cause harm to living beings, property or any component of the environment can be named as hazardous substance

"Occupier", in relation to any factory or premises, means a person who has control over the affairs of the factory or the premises and includes in relation to any substance, the person in possession of the substance.⁶³

Primarily, all powers under this Act vest with the Central Government and the authorities constituted under the Central Government.⁶⁴ The provisions empowering the Central Government mainly include the power to take measures to protect and improve environment and air being one of the components of the environment is included in these provisions. These provisions are summarized below.

5.2.(ii). Powers of Central Government to take measures (Section 3)

The Central Government has power to take all such measures as it deem necessary or expedient for the specific purposes under section 3 of the Act, which are:

- (I) Protecting and improving the quality of the environment, and
- (II) Preventing, controlling and abating environment pollution, in particular and without prejudice to the generality of above-mentioned sub-section (I). Some measures of which the Central Government may take are enumerated in Section 3 (II). These are with respect to all or any of the matter namely: -
 - (i) Coordination of actions by the State Governments, officers and other authorities (a) under this Act, or the rule made there under or (b) under any other law for the time being in force which is relatable to the objects of this Act.

⁶³ Section 2 (f)

⁶⁴ Section 3, 3 (3) and 23

- (ii) Planning and executing of a nation-wide programme for the preservation, control and abatement of environment pollution;
- (iii) Laying down standards for quality of environment in various aspects.
- (iv) Laying down standards for emission or discharges of environmental pollutant from various sources whatsoever.

However, different standards for emission or discharge may be laid down under this clause from different sources having regard to the quality or composition of the emission or discharge of environment pollutants from such sources.

- (v) Restriction of areas in which any industries, operation or processes or class of industries, operations of processes shall not be carried out or shall be carried out subject to certain safeguards;
- (vi) Laying down procedures and safeguards for the prevention of accidents, which may cause environmental pollution, and remedial measures for such accidents;
- (vii) Laying down procedures and safeguards for the handling of hazardous substances;
- (viii) Examination of such manufacturing processes, materials and substances as are likely to cause environmental pollution;
- (ix) Carrying out and sponsoring investigation and research relating to problems of environmental pollution;
- (x) Inspection of any premises, plant, equipment, machinery, manufacturing or other processes, material or substances and giving, by order, of such directions to such authorities, officers or persons as it may consider necessary to take steps for the prevention, control and abatement of environment pollution;
- (xi) Establishment or recognition of environmental laboratories and institutes to carry out the functions entrusted to such environmental laboratories and institutes under this Act;
- (xii) Collection and dissemination of information in respect of matters relating to environmental pollution;

(xiii) Preparation of manuals, codes or guides relating to the prevention, control and abatement of environmental pollution;

(xiv) Such other matters, as the Central Government deems necessary or expedient for the purpose of securing the effective implementation of the provisions of this Act.

Clause (1) of Section 3 empowers the Central Government to take all such measures as it deems necessary or expedient for the purpose of protection and improvement of (a) quality of environment, and (b) prevent, control and abate the environmental pollution. It does not give named specific powers which can be exercised by the Central Government, but gives wide powers i.e., to take any step which the Central Government 'deems necessary' or 'expedient' for environmental protection.

It may be pointed out here that Air Act as a matter of practice operates in tandem with the Environment (Protection) Act 1986 (EPA). Being a self contained statute, the Air Act empowers the State Boards to notify the Standards independently under section 17 (g). However, there is an overlap. The Environment (Protection) Act enable the Central Government to lay down emission standards which are found in schedule appended to the Environment (Protection) Rules of 1986 (EPR). By operation of section 24 of EPR norms takes precedence and hence in practice the State Boards generally remodify the EPR Standards under the Air Act.

Powers of the Central Government to constitute by order, one or more authorities

Section 3 (3) provides that the Central Government may delegate the following powers to such authority or authorities:

(i) Such of its powers and functions under this Act as may be mentioned in the order.

(ii) Power of the Central Government to issue directions under section 5.

(iii) The power to take fourteen measures as enumerated above in section 3 (2) of the EPA.

Though under section 3 (3) of the EPA there is provision that Central Government may constitute an authority or authorities by such name or names as may be specified in the order for the purpose of exercising or performing such of the powers and functions under the Act for taking measures against environment polluters. Yet except Central Board no other authority has been constituted so far. However, this power has been delegated to some of the State Pollution Control Boards including West Bengal. In pursuance of power conferred by the Central Government, the State Pollution Control Board proceeds for taking an action under the Court having jurisdiction against the undertaking causing environmental pollution. However, from the reported as well as unreported cases on EPA, it transpires that there is no direct case where the Court takes action against any administrative action.

In pursuant to Clauses (1) and (3) of section 3 of the Environment (Protection) Act, the Supreme Court constituted an authority for National Capital Region for traffic Safety laws and vehicular pollution under Chairmanship of Sri Bhure Lal in *M.C.Mehta vs Union of India*,⁶⁵ the Bombay High Court in *Sneha Mandal Cooperative Housing Society Ltd., Mumbai vs Union of India*⁶⁶, has explained that sections 3, 4 and 5 of the Environment (Protection) Act bestow on the Central Government plenary powers to take all steps and measures as it deems necessary or expedient for the purpose of protecting and improving the environment. The Act also contemplates appointment of several authorities for the purpose of overseeing the effective implementation of the Environment Protection Policy envisaged by the Act. Thus, the Act intended to put severe restrictions on untrammelled depredation of environment resources.

⁶⁵ AIR 1998 SC 617

⁶⁶ AIR 2000 Bom 121

The list of XIV measures under Clause (2) of section 3 is an inclusive list and not an exhaustive one. Therefore, the Supreme Court directed the Central Government to take adequate measures to make the people aware about the protection of environment, keeping the citizens informed is an obligation of the Government in *M.C.Mehta vs Union of India*.⁶⁷ The Court issued following directions to the Central Government to fulfill about obligation.

- (a) Central Government to issue directions to the State Governments and Union Territories to enforce a condition of license to all cinema halls, touring cinemas and video parlours to exhibit free of cost at least two slides/messages on environment in each show.
- (b) The Ministry of Information and Broadcasting of the Government of India to produce information films on various aspects of environmental pollution.
- (c) Spread relative information through Radio, T.V.
- (d) Making environment a compulsory subject in schools and colleges;
- (e) Laying down standards for the quality of environment in its various aspects.

The expression 'improvement and enhancement of quality of environment' was referred to by the Supreme Court in *Vellore Citizen's Welfare Forum vs. Union of India*,⁶⁸ where the Court observed that customary international laws which are not contrary to municipal law are deemed to have been incorporated in the domestic law. Because of this Fact, the statement and objects and reasons of Environment (Protection) Act stated that, 'the decline of environmental quality has been evidenced by increasing pollution. The right of a person to have pollution free environment is a part of basic jurisprudence of the land. It includes the quality of air, water and general environment. In another case,⁶⁹ the Court explained that the 'Right to life' is a fundamental right under Article 21 of the Constitution and it includes the Right of enjoyment of pollution-free water and air for full enjoyment of life.

⁶⁷ AIR 1992 SC 382

⁶⁸ AIR 1986 SC 847

⁶⁹ SUBHASH KUMAR vs State of Bihar AIR 1991 SC 420 at 424

If anything endangers or impairs the quality of life in derogation of laws, a citizen has a right to have recourse to Article 32 of the Constitution for removing the pollution of water or air, which may be detrimental to the quality of life.

In *V. Lakshmipathy vs. State*,⁷⁰ a public-spirited person with other residents filed a writ petition under Article 226 of the Constitution against the location and operation of industries in a residential area. They complained of serious threat to public health on account of environmental hazard in form of air pollution, noise pollution, and land pollution etc., by industries and industrial activity in the area. The Court while issuing the writ of mandamus directed the industries of the area to stop working and asked the Bangalore Development Authority to carry out lay-out work in accordance of law and construct roads in the area.

In *M.C.Mehta vs. Union of India*⁷¹, the Supreme Court on the basis of the inspection report of NEERI (National Environmental Engineering Research Institute) concluded that mining operations in ecologically sensitive areas of Badkal lake and Surajkund were violating the Ambient Air Quality Standards in respect of Noise (Schedule III) and SPM (Suspended Particulate Matter) limit fixed under Schedule I of the Environment (Protection) Rules of 1986. In *Taj Trapezium Case*,⁷² the Vardharajan Committee (1978) and NEERI (1990) gave their reports regarding the status of air pollution around Taj Mahal to the Supreme Court. The Court based its findings on these reports. Report of NEERI observed 'on four occasions during the five years air quality monitoring at Taj Mahal were found to be higher than 300 ug/m³, i.e., 10 folds of schedule VII standard of 30 ug/m³ for sensitive area. The values exceeded even the standard of 120 ug/m³ set for industrial zones... SPM level at Taj Mahal was invariably high (more than 200 ug/m³) and exceeded the National Ambient Air Quality Standard of 100 ug/m³ for SPM for locations barring a few monsoon seasons.

⁷⁰ AIR 1992 KANT 57

⁷¹ AIR 1996 SC 1977

⁷² M.C.MEHTA VS. UNION OF INDIA AIR 1997 SC 734

Therefore, under Clause 2 (iii) the Central Government is under an obligation to lay down standards for (i) the quality of environment and (ii) discharge of emission of environment pollutants. Rule 30 of the Environment (Protection) Rules 1986 provides for the standards for emission or discharge of environment pollutants from industries, operation or processes and such standards have been specified in Schedule I to IV to protect and improve the quality of environment. Further, Clause (2) of Rule 3 empowers the Central Board and State Boards to specify more stringent standards than the standards prescribed in the Schedule. Thus, such discharge or emission beyond such standard would amount to violation of environmental laws, and the erring person is liable to be punished.

Powers of the Central Government to give directions [Section.5]

The Central Government may, in the exercise of its powers and performance of its functions under this Act, issue directions in writing to any person, officer or any authority. Such person, officer or authority is bound to comply with the directions.

The power to give direction includes the power to direct:

- (a) the closure, prohibition or regulation of any industry, operation or process, or
- (b) stoppage or regulation of supply of electricity or water or any other service.

It is obvious from the above provision that the powers given to the Central Government are very wide. It can close any industry or stop the supply of any service to the industry. It does not provide even for the issue of notice of closure of the industry to its owner or disconnection of any service. In fact the section does not specify any subjects for which directions can be issued. The Central Government can give directions in the exercise of its powers and performance of its function under the Act.

However, Rule 4 of the Environment (Protection) Rules, 1986 must be read with Section 5 of the Environment (Protection) Act. Rule 4 provides the procedure to issue directions under Section 5 of the Act.

Some essential features of this Rule are:-

- (a) Any direction issued shall be in writing.
- (b) The direction must specify the nature of action to be taken and the time within which the person shall comply it with, officer or the authority to whom such direction is given.
- (c) The person, officer or authority to which the copy of direction is issued must be given an opportunity of not less than 15 days from the date of service to file the objections.
- (d) If the direction is regarding the stoppage or regulation of electricity or water or any other service, the carrying of any industry, operation or process, a copy of the same is to be endorsed to the occupier of the industry etc.
- (e) If the occupier had already been heard early no opportunity of being heard and copy of direction shall be endorsed to him.
- (f) The Central Government shall within a period of 45 days from the date of hearing or from the date up to which an opportunity is given to the person, officer or authority to file objections whichever is earlier or after considering the objections, if any confirm, modify or decide not to issue the proposed direction.
- (g) Procedure to serve the notice of direction has also been prescribed under Rule 4 (b) as has been provided for service of summons.
- (h) In view of the likelihood of grave injury to the environment, procedure to provide an opportunity can be dispensed with after recording the reasons in writing.

In *V.S.Damodaran Nair vs. State*,⁷³ the High Court of Kerala issued the direction under Section 5 of the Environment (Protection) Act, 1986 and 17 of the Air Prevention and Control of Pollution Act of 1981.

As per report of National Environmental Engineering and Research Institute (NEERI) because of the presence of Ammonia and SPM, automobile pollution, there was air pollution in Cochin City area. In spite of the directions of the Court the Municipal Corporation, State Pollution Control Board and Central Pollution Control Board did not care to implement the remedial measures to control the air pollution. Since these directions were not carried out, this case came up as a PIL before the High court. The Court issued detail directions to the State Pollution Control Board and Municipal Corporation of Cochin to implement the recommendations of NEERI to control the air pollution in the city including the direction to provide green-belt barrier between the industrial zone and residential sector without delay.

In order to maintain the quality of environment at the proper level, the Environment Act provides power to make rules to regulate environment pollution under section 6 of the Environment Protection Act. Under the Environment Protection Act, section 25 also provides the power of the Central Government to make rules. Apart from the general rule-making power⁷⁴ the Environment Protection Act contains a specific provision⁷⁵, which confers power on the Central Government to prescribe by Rules the standards for emission or discharge of environmental pollutants.

The rules mentioned above as provided under the Act are discussed hereunder:

Power to make Rule to regulate Environment pollution.⁷⁶

⁷³ AIR 1996 KER 8

⁷⁴ The Environment Protection Act, Sections 6(1) and 25(1)

⁷⁵ Id, Section 25(2)(a) read with Section 7

⁷⁶ Id, Section 6

The Central Government may, by notification in Official Gazette, make rules in respect of all or any of the matters referred to in Section 3. Any particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters namely:-

- (i) the standards of quality of air, water or soil for various areas and purposes;
- (ii) the maximum allowable limit of concentration of various environmental pollutants (including noise) for different areas;
- (iii) the procedures and safeguards for the handling of hazardous substances;
- (iv) the prohibition and restrictions on handling of hazardous substances in different areas;
- (v) the prohibition and restrictions on location of industries and the carrying of processes and operations in different area;
- (vi) the procedures and safeguards for the prevention of accidents which may cause environmental pollution and for providing for remedial measures for such accidents.

Therefore, the Central Government after deriving its powers from section 6, have published various standards to maintain the quality of air, water, soil and for the safe handling, management and disposal of hazardous substances. This section may also be read in conjunction with section 25 of the Act, which also empowers the Central Government to make rules for carrying out the purposes of this Act. As such in pursuance of sections 6 and 25 of the Environment Protection Act the Central Government made the Environment Protection Rules from 19th November 1986.⁷⁷ The emission standards are found in the Schedules appended to the Environment Protection Rules, 1986(EPR).

The rules framed under the EPA prescribe norms for specific industries⁷⁸ and general emission standards, which are 'Concentration based'

⁷⁷ Govt. of India, Ministry of Environment and Forest; Notification No. S.O. 844(e), dated 19-11-1986; in the Gazette of India

⁷⁸ Schedule I, Environment Protection Rules of 1986

'equipment based' and 'load/mass-based'.⁷⁹ The general standards apply in the absence of industry specified norms.⁸⁰ Besides, Rule 30 of the Environment (Protection) Rules, 1986 provides that the standards for emission or discharge of environment pollutants from industries, operations or processes shall be specified in Schedule I to IV to protect and improve the quality of environment. Further clause (2) of Rule 3 empowers the Central Board or State Boards to specify more stringent standards than the standard prescribed in the Schedule. Various Schedules dealing with various aspects of environmental pollutants are as follows:

- (a) **Schedule- I**- It has enlisted 89 industries and the parameter and standards of emission/discharge. Such industries include thermal power plants, caustic soda industry, dye industries, electro-plating, cement plants, synthetic rubber, pulp and paper industry, leather, fertilizer, nitric acid, iron and steel, rubber, oil refinery, petrochemicals, pesticides, paint, tannery, lead, glass, noise from automobiles, food and fruit processing industry, organic chemicals manufacturing industry, pharmaceutical industry, water quality standard for coastal waters, marine outfalls, noise standards for firecrackers and others.
- (b) **Schedule-III**-Ambient Air standard in respect of Noise.
- (c) **Schedule-IV**-Standard for emission of smoke, vapour etc from Motor Vehicles.
- (d) **Schedule-VI**-General standards for discharge of Environmental Pollutants.
- (e) **Schedule-VII**-National Ambient Air Quality Standards.

Schedule VII mentioned above provides separate standards and concentration in Industrial areas, Residential areas and Sensitive areas and also the method of measurement of pollutants. Concentration in excess of the above-mentioned Air Quality Standards amounts to violation of environmental law and the erring person is liable to be punished.

⁷⁹Part D, Schedule VI

⁸⁰Rule 3

In *M.C. Mehta vs. Union of India*⁸¹, the Supreme Court, on the basis of the inspection report of NEERI (National Environmental Engineering Research Institute) concluded that mining operations in ecological sensitive areas of Badkal lake and Surajkund were violating the Ambient Air Quality Standards in respect of Noise (Schedule III) and SPM (Suspended Particulate Matter) limit fixed under Schedule I of the Environment (Protection) Rules of 1986.

It may be pointed out here that the Environment Protection Act confers power on Central Government to lay down standards for quality of environment and for emission or discharge of environmental pollutants from various sources. These standards are usually general standards, varying depending on the kind of industry. However, it may happen that even though the prescribed standard of emission is maintained in a particular area by industry. Still the cumulative effect of such emission or discharge from various sources may cause environmental deterioration. Such a situation can be avoided only by prescribing standards for emissions or discharge in each case keeping in view the relevant environmental factors as, (i) number of industries in a given area; (ii) nature of discharge or emission; and (iii) area where industries are located. Rule 5(1)⁸² of the Environment (Protection) Rules 1986, has taken care of this aspect.

The standards provided under the Environment (Protection) Act 1986, after being notified by the Central Government, apply Nation wide. It is not essential for the State Pollution Control Board to re-issue these standards under the Air Act and Water Act. Rule 3 (3A) of the EPR requires each and every industry, operation or process to comply with the minimum National standard set out in Schedule VI to the EPR from 1 January 1994.

⁸¹ AIR 1996 SC 1977

⁸²It may be noted that the Environment Act provides for restriction of areas in which industries. Operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to safeguards. It also provides for making rules to prohibit or restrict the location of industries and the carrying on of processes and operations in different areas. Rules have been prescribed enabling the Central Government to prohibit or restrict the location of industries or carrying on of processes and operation in any area having regard along with other things, to standards for quality of environment in the area.

5.2.(iii). Provisions for prevention, control and abatement of Environmental Pollution

Section 7 of the EP Act lays down restrictions for emission of pollutants in excess of standards prescribed. It provides that no person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollution in excess of the standard prescribed.

These standards can be prescribed under section 6 (2)(a) and 25 (2)(a). They can also be laid down by the Central Government in the form of measures under section 3(2)(iii) and (iv). Also the Central Government can issue written directions on the subject of pollution under section 5.

With respect to air pollution the standards under the Environment Protection Rules are to be maintained by any industry. Although the standards have been prescribed, very little has been done for the monitoring systems of air pollution, lab facilities for estimating pollutant levels and training of manpower to fulfill its object. The provisions of the Act do not take into account relevant factors such as, difference in capacity of various industries to take pollution measures, the cumulative effect and environmental impact of emissions or discharge from different sources at a given time in a given area and costs involved in the process of control of pollution to industry and society. The power to fix standard of emission or discharge is required to be conferred on expert authority, which has been done by taking opinion of NEERI (National Environmental Engineering Research Institute) by the Court in certain cases before the Supreme Court.⁸³

⁸³ M.C.Mehta vs U.O.I., AIR 1996 SC 1977 & M.C.Mehta vs U.O.I., AIR 1997 SC 734

5.2.(iv). ACCIDENTS IN HAZARDOUS INDUSTRIES

The act deals with the accidents causing environmental pollution in three ways (These accidents include the discharge of poisonous gases and noxious chemicals in the atmosphere). These are:

- (1)The Central Government takes measures laying down procedures and safeguards to prevent accidents likely to cause environmental pollution. In addition, remedial measures for such accidents are also prescribed under section 3(2)(vii)
- (2)The Central Government is empowered to make preventive rules, after notification in the Official Gazette, to avoid such accidents. [Section 6(2)(f)]
- (3)If the discharge of any pollutant exceeds the prescribed standards leading to an accident, the person responsible must prevent and mitigate the consequential pollution. He is under a legal obligation to intimate the prescribed Authority. Then the Authority may take measures to prevent and mitigate the pollution. [Section 9 (1)]

Therefore, under chapter III Sections 7, 8 and 9 provide preventive measures to be taken by the institutions (industry, operation or process). Prohibition of Section 7 shows that certain standards have to be maintained and a person or an industry cannot be permitted to cause damage to the environment

In *Taj Trapezium* case⁸⁴ substantial level of sulphur dioxide and particulate matter generated by various industries and Mathura Refinery and vehicular traffic was found to be very high. Thus, it caused 'acid rain' resulting in the yellowing of the Taj Mahal. On this basis 292 industries were ordered either to switch over to gas, or close down, or shift out of the Taj Trapezium.

Section 8 deals with specific types of pollutants- the hazardous substances, and directs to comply with prescribed procedure and to abide by the safeguards provided for by the Rules specially notified for them. There are two requirements for handling hazardous substances.

⁸⁴ AIR 1997 SC 734

- (a) the person has to follow the procedure prescribed by the Act or Rules made there under;
- (b) the person handling the hazardous substance has to take necessary safeguards as prescribed.

Various rules dealing with the procedure and safeguard have been notified and various rules have been enacted by the Central Government from time to time. The rules relating to hazardous substances are as under:-

- (1) Hazardous Waste (Management and Handling) Rule, 1989.
- (2) Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
- (3) Hazardous Micro-organisms Rules, 1989.
- (4) Chemical Accidents (Emergency planning, preparedness and Response) Rules, 1996.
- (5) Bio-Medical Waste (Management and Handling) Rules, 1998.
- (6) Recycled Plastic Manufacture and Uses Rules, 1999.
- (7) Municipal Solid Waste (Management and Handling) Rules, 1999.
- (8) Environment Impact Assessment Rules, 1996.

The approach adopted by Environment Act is not only for remedial action in case of accidental pollution, but also preventive action against apprehended pollution. These Rules have covered a wide aspect of handling of hazardous substances, for example, the Rules provide for the liability and duties of the occupier and operator, authorization to deal with them, packaging, labeling and transport of hazardous wastes, disposal site, operation and closure, full maintenance during collection, reception, treatment, transport, storage and disposal of hazardous substances, accident reporting and follow up. Several hazardous substances relate to cause air pollution too and hence most of the rules relate to the control of air pollution.

Therefore, the Environment Protection Act is an improvement over the Air Act, because under the Air Act, the Board has power to take remedial measures to mitigate the emission in case of actual and apprehended pollution under section 23(2). But this Act does not cast a

positive duty on the person responsible for pollution to take any preventive or remedial action, except to intimate⁸⁵ the authorities about the accident, which has or is apprehended to occur. The Environment Protection Act provides provision for preventive action against apprehended pollution along with the provisions for remedial action and Section 9 makes it obligatory to furnish information to the authority about the (a) discharge of environmental pollutants in the excess of the prescribed standards, or (b) apprehension of such occurrence due to accident, or occurrence of some unforeseen event. Hence, in a case of an accident resulting in discharge of environmental pollutants in excess of the standard fixed, the person in charge of the place where accident has occurred or is responsible for discharge of pollutant, has a statutory duty to mitigate the resultant environmental pollution. Similarly, such persons have the statutory duty to take preventive measures when the discharge of any pollutant in excess of the fixed standard is apprehended to occur. They are bound to intimate the fact of apprehension or occurrence of the accident to the prescribed authorities⁸⁶ and also render all assistance to them.⁸⁷ The authorities are empowered to take measures to prevent or mitigate⁸⁸ the pollution and recover expenses⁸⁹ from the person concerned. Due to said reason, the Environment (Protection) Act, 1986 is an improvement over the prior legislation as it casts on the polluter or the potential polluter a duty to take remedial or preventive actions and to assist the authorities.

Section 10 deals with the power of any person empowered by the Central Government for entry and inspection. Section 10, Clause (2) makes it a mandatory duty to all persons carrying on any industry, operation or process or handling any hazardous substances to render all assistance to the person so empowered by the Central Government while carrying out the function provided under Section 10, Clause 1 of entry and inspection. But-

⁸⁵ Air Act, Section 23(1)

⁸⁶ See Environment (Protection) Rules, 1986, rule (2)

⁸⁷ The Environment Protection Act, 1986, Section 9(1)

⁸⁸ Id Section 9(2)

⁸⁹ Id Section 9(3)

- (a) if a person carrying on an industry, operation or process, etc. does not render his help as envisaged, he would be guilty of an offence under this Act,
- (b) Similarly, if any person willfully delays or obstructs any person so empowered he shall be guilty of an offence under this Act.

It is important to note here that the penalties provided for offences under the Environment (Protection) Act differ from those of Air Act⁹⁰ and Water Act⁹¹ in material respect. Hence the penalty for contravening the above provision under the Air Act is punishable with imprisonment for a term of three months and a fine which may extend to Rs. 10,000, or both, with an additional fine of five thousand for every day during which such contravention continues after conviction for the first such contravention. The Environment Act contains an omnibus provision covering all offences. For violation for any provisions of the Environment Act or of the Rules made or orders or direction issued there under the punishment is provided. The maximum period of all offences is uniform namely five years and the maximum fine up to Rupees one lakh, is the same for all offences. If even after conviction the offence continues an additional fine of Rupees five thousand may be for each day. If it continues beyond one year the offender is punishable with imprisonment for a period up to seven years, while the Air Act does not lay much emphasis either on imprisonment or fine. The Environment (Protection) Act stresses more on monetary sanctions. It may be opined that the Environment (Protection) Act contains provision, which is having deterrent effect, but the Air Act contains provision, which takes away this deterrent effect. According to Section 24 of the Environment (Protection) Act if the offence committed is falling under the purview of any other Act, it is provided that the offender shall be liable to be punished under that Act and not under this Act. This strange provision therefore, takes away

⁹⁰ Air (Prevention and Control of Pollution) Act, 1981 provides punishment for three months and fine of Rs 10,000/-

⁹¹ Water (Prevention and Control of Pollution) Act, 1976 under Section 39 provides only a fine amounting to Rs 5000/-

the life out of the new enactment and reduces the law into a piece of legislation in to a 'paper tiger' having no tooth and nail.

Section 11 of the Act empowers any person empowered by the Central Government to take sample and the procedure to be followed for taking samples. Power to establish environmental laboratories and provision for Government Analysts have been provided under Sections 12 and 13 respectively. These provisions are similar to the provisions under the Air Act, relating to the power to take sample of Air or emission and procedure to be followed, the only difference is that under the Environment (Protection) Act only the Central Government or any officer empowered by the Central Government shall have power to take sample for the purpose of analysis or air, water, soil or of other substance, but under Air Act, the State Board is to take the sample of air or emission for the purpose of analysis.

Section 14 of the Act declares that a report signed by a Government Analyst, 'may be used as evidence of facts stated therein in any proceeding under this Act.' Section 15 provides penalty for the contravention of the provisions of the Act and Rules. Sections 16 and 17 provide for the liability and punishment for the offences committed by the Companies and Government Departments.

Sections 16 and 17 of the Act enunciate the principle of vicarious liability. Under Section 16 the person in charge, Director, Manager, Secretary or other Officer of the Company shall be vicariously liable for any offence committed by the Company. The Supreme Court in the case of *U.P. Pollution Control Board vs Mohan Meakins Ltd*⁹², made it clear that the Directors/ Managers who were responsible for construction work and plant would be held liable under Section 16 of the Environment (Protection) Act, 1986. The Court opined that the complaint could not be absolved only on the basis that the complaint was filed seventeen years back and there was inordinate delay in taking up a case. Section 17 lays down the provision for offences by Government Departments. It provides that the Head of the

⁹² AIR 2000 SC 1456 at 1460

Department shall be deemed guilty of the offence and shall be liable to proceeded against and punished accordingly, in case an offence under this Act is committed. Section 18 is a corollary to Section 17. It offers protection to the Government, any officer, other employees or any authority of the Government (also the authority constituted under this Act) in respect of anything done in good faith or intended to be done in good faith in pursuance of this Act or Rules made or orders/ directions issued there under. Here, good faith implies an obligation to act with a degree of prudence.

5.2.(v). COGNIZANCE OF OFFENCES

Section 19 of the Environment (Protection) Act, 1986 provides that no Court shall take cognizance of any offence under the Act except on a complaint made by (a) the Central Government or any authority or officer authorized in this behalf by that Government; or (b) any person who has given notice of not less than sixty days, of the alleged offence and of his intention to make a complaint, to the Central Government or authority or officer authorized as aforesaid. This provision is one of the significant innovation for the enforcement of the Act and there is no such provision contained in any other pollution abatement legislation at the time of the Act's adoption. A new stand with regard to locus standi has been adopted and this section enables even a common citizen to exercise his right to approach the Court provided he has given notice of not less than 60 days of the alleged offence.

However, the provision has also been characterized as an 'eye wash', because the 60 days notice period required for the Government, gives the offending industry sufficient time to clean up traces of the offence.⁹³ The citizens have seldom used this section. Most of the concerned citizens and environmental groups prefer to obtain redress through Public Interest Litigation.

⁹³ Agarwal, Significance & Perspective Impact of India's Environment (Protection) Act, 1986, 1 Encology No.7, 28-29 (1986)

Section 20 of the Act empowers the Central Government to require to furnish information, report or return from any person, State Government or other authority. It is mandatory provision and the person, officer, State Government or other authority is bound to furnish it. This provision enables the Central Government to exercise its power to obtain information from any authority to abate pollution and exercise its control.

Section 21 of the Environment (Protection) Act provides that all the Members, Officers and employees of the authority constituted under section 3 or any provision of the Act or rules shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code. Therefore, certain rights and protections have been provided to these authorities when they are discharging their duties to check air pollution or other pollution.

Bar of Jurisdiction

Section 22 of the Act provides for overriding effect of the Act and therefore debars the Civil Courts from having any jurisdiction to entertain any suit or proceeding in respect of anything done, action taken or order or direction issued by the Central Government or any other authority or officer in pursuance of any power conferred by or in relation to its or his functions under this Act.

Power of the Central Government to delegate

Under Section 23 of the Act the Central Government may delegate such of its powers and functions as it may deem necessary or expedient, to any officer, State Government or other authority. The delegation of powers may be subject to any conditions and limitations.

However, it cannot delegate the following:

- (i) the power to constitute an authority under Section 3 (3);
- (ii) power to make rules under Section 25.

5.2.(vi).Supremacy of Provisions

The Environment (Protection) Act⁹⁴ lays down the provision relating to effect of other laws which provides that the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act. Therefore, if anything inconsistent is contained in the Air (Prevention and Control of Pollution) Act, 1981 and Environment Protection Act, the provisions of Air Act and rules and orders made therein shall have effect and the Environment Protection Act shall prevail. However, where any act or omission constitutes an offence punishable under this Act and also under any other Act, then offender found guilty of such offence shall be liable under the other Act and not under this Act.

5.2.(vii). Powers of the Central Government to make Rules

Section 25 of the Environment (Protection) Act empowers the Central Government to make rules for carrying out the purpose of the Act.⁹⁵

These rules may include provisions for all or any of the following matters; namely:-

- (i) the standards in excess of which environmental pollutants shall not be discharged or emitted under Section 7;
- (ii) the procedure in accordance with the safeguards in compliance with which hazardous substances shall be handled or cause to be handled under section 8;
- (iii) the authorities or agencies to which intimation of the fact of occurrence or apprehension of occurrence of the discharge of any environmental pollutant in excess of the prescribed standards shall be given and whom all assistance shall be rendered under sub-section (1) of section 9;
- (iv) the manner in which samples of air, water, soil or other substances for the purposes of analysis shall be taken under section 11(1);
- (v) the form in which notice of intention to have a sample analysed shall be served under Clause (a) of sub-section (3) of section 11;

⁹⁴ Section 24

⁹⁵ Environment (Protection) Act, 1986, Section 25(1)

- (vi) the functions of the environmental laboratories, the procedure for the submission to such laboratories of samples of air, water, soil and other substances for analysis or test; the form of laboratory report; the fees payable for such report and other matters to enable such laboratories to carry out their functions under sub-section (2) of section 12;
- (vii) the qualifications of Government Analysts appointed or recognized for the purpose of analysis of Samples of air, water, soil or other substances under section 13;
- (viii) the manner in which notice of the offence and of the intention to make a complaint to Central Government shall be given under Clause (b) of section 19.
- (ix) The authority or officer to whom any reports, returns, statistics accounts and other information shall be furnished under section 20.
- (x) Any other matter which is required to be, or may be prescribed.

In *B.L.Wadhera(Dr.) vs Union of India*,⁹⁶ the Supreme Court issued fourteen directions to the Delhi Municipal Corporation and others regarding the degrading ambient air quality and disposal of solid waste of Delhi City. In this case the Court constituted a Committee to look into the various aspects of Urban Solid Waste Management. The Committee had submitted its recommendations, which were circulated to all States. The Municipal Solid Waste (Management and Handling) Rules, 1999 was notified by the Central Government in response to that report. There are various Rules notified by the Central Government in the exercise of the powers conferred under section 25 of the Environment (Protection) Act 1986 and many of these Rules deal with Air Pollution.

Various Rules notified by the Central Government in the exercise of the powers conferred under section 25 are:-

1. Environment (Protection) Rules, 1986.
2. Hazardous Wastes (Management and Handling) Rules 1989.

⁹⁶ AIR 1996 SC 2969.

3. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
4. Hazardous Micro-Organism Rules, 1989.
5. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
6. Bio-Medical Waste (Management and Handling) Rules, 1998.
7. The Prevention and Control of Pollution (Uniform Consent Procedure) Rules, 1999.
8. Municipal Solid Waste (Management and Handling) Rules, 2000.
9. Noise Pollution (Control and Regulation) Rules, 2000.

Section 26 of the Environment (Protection) Act provides that every Rules made under this Act shall be laid before the Parliament as soon as may be after it is made. The Rule can be accepted, modified or rejected by both the Houses of the Parliament.

The Environment (Protection) Act 1986 has enacted to give effect to the solemn resolutions at the 1972 Stockholm Conference on Human Environment. The predominant characteristic of the Environment Act is the centralization and the concentration of all power in one authority, the Central Government. The authorities constituted to implement the environment are also subject to the supervision and control of Central Government. The vesting of such authority is advantageous in one respect but is also not above criticism. It helps in formulation of a National environmental policy and its implementation at the national level. Yet, it is criticized for undue centralization as it may lead to serious undesirable consequences and the Central Government may fail to consider vital environmental impact assessments while formulating plans and programmes and making decisions in its enthusiastic and rapid race towards development. Even if it chooses to appoint officers and confer upon them powers under the Environment (Protection) Act,⁹⁷ there is no guarantee that they will have functional freedom. This is so because they are made subject

⁹⁷ Section 4.

to general control and direction of Government. Even delegation of powers and functions by Central Government to any officer by Central Government to any officer, State Government or other authority may not bring about different results.⁹⁸

This Act is said to be a more effective and bold measure to fight environmental pollution. The Act has adopted a new stand with regard to the question of locus standi so that now even a citizen has right to approach a Court. Section 19(b) requires such person to give a sixty days notice, this aspect is criticized as an 'eye wash' because sixty days notice enables the polluter to continue pollution for sixty days and the sufferers or persons concerned have no alternative than to wait helplessly. It also allows the offending industry sufficient time to clean up. Therefore, most concerned citizens or groups prefer to obtain redress through PIL and this provision remains like a vestigial organ.

The Act strengthens penal provisions, but contains a provision⁹⁹ that takes away this deterrent effect by providing if the concerned act or omission is an offence under any other Act, the offender can be proceeded under that Act. Therefore, if any punishment is to be imposed for air pollution the provisions of the Air Act are to be taken into consideration and not the Environment (Protection) Act. Therefore, since the provisions of the Air Act do not lay much emphasis either on imprisonment or fine the offenders are being persuaded and not penalized under the Air Act. This takes away the life out of this enactment.

The Act has also failed to make any provision to provide for effective participation by individuals and voluntary organizations in development of an environmental policy and enforcement of emission standard. There should be provisions for public scrutiny over a project, as it will provide an opportunity for all concerned to study, assess and express

⁹⁸ Chandrashekhar: Environment Protection: Two steps Forward, one step back, See JILI vol 30 p.185 (1988)

⁹⁹ Section 24 of the Environment Protection Act

their views on environmental consequences of the proposed actions.¹⁰⁰ Some who would put forward an argument that the public may be ignorant of technical issue involved may oppose this type of public participation. The attitude that the public should not be unduly alarmed by probability of future danger involved in a project has actually been used to conceal relevant and vital information from public. This phenomenon has in returned aggravated the problem of pollution. The expansion of health ailments, respiratory and other diseases are increasing day by day. The authorities entrusted with the work can no longer be permitted to sit back with folded hands. The raise in the respiratory ailments, including lung cancer hovering over more than half of the city's school children in Calcutta¹⁰¹ and other metropolitan cities gives the reflection that nothing has been done to reduce pollutants from the city's air. Therefore, it is the people or innocent children who are the immediate victims of environmental hazards. Inevitably the Right to information is kept away and it may be pointed out that concealing relevant information would not leave the public remain unaware of the facts. The legislature should encourage public participation to guarantee fairness and resolve the problem of pollution through effective means. Therefore, Government should disseminate environment information as a matter of legal right of individuals and also by way of environmental education to the people. The policy should also put more stress on the air pollution because if the pollution of atmosphere occurs in a rapid pace, the day would not be far when we would find people gasping for breath in the metropolitan cities. The more vulnerable to atmospheric pollution would be the children because their lungs are at a formative stage and they inhale more air relative to their body size. Further, due to their height they are close to ground level and more exposed to pollutants. A study conducted by Chittaranjan National Cancer Institute shows that 52% school children's in West Bengal were suffering

¹⁰⁰ See P. Leelakrishnan: 'Environmental Impact Assessment Need for Law', Cochin University Law Review, 246 at 254 (1986)

¹⁰¹ The Statesman, South Bengal Plus, 21st August 2004.

from respiratory ailments.¹⁰² This situation is alarming. It shows how recklessly we are violating minors Oposa's theory of intergenerational equity and responsibility. Before the condition worsens both the Environment (Protection) Act and Air Act should work in consonance and have punitive measures imposed for violation of the emission standards and other standard to maintain ambient air quality. One of the defects of the Environment (Protection) Act is that it fails to provide for an independent statutory agency. The Environment (Protection) Act should also be amended to provide provisions for enforcement by taking adequate help from the specialized agencies performing tasks under the Environment Impact Assessment Regulations of 1994.

The Act is required to impose punishments to deter people if any law is silent and it should not provide for opting to the special legislation of the other Act, if the punishment specified in that Act has less severe penal provisions. The Act is required to give special consideration to air pollution also because a person can survive for five weeks without food and five days without water but only five minutes without air. The Environment (Protection) Act should be applied only where the Air Act is silent.

Scanning of existing laws on air pollution therefore, reveals that it partially lends credence to public participation. However, legal propensity remains neither towards substantive nor procedural participation. The enforcement and inspectorate mainly State Pollution Control Boards and environmental authority are delegated with powers to undertake all measures to protect and improve environment. The slackness coupled with woefully understaffed machinery exhibits negligible records in actualizing the objects in these laws. It is under this backdrop public has been empowered to complain to Board by giving affording 60 days prior notice¹⁰³. While granting license the Board is not under a duty to solícite public opinion

¹⁰² Ibid.

¹⁰³ Section 19, Environment (Protection) Act, 1986; Section 49 The Water (Prevention And Control of Pollution) Act, 1974; Section 43 The Air (Prevention and Control of Pollution) Act, 1981; Section 55 The Wildlife (Protection) Act, 1972.

regarding environmental enignty of industries. The 1988 amendment to Water & Air Act has provided a fillip to public participation in activating the machinery of court.¹⁰⁴

In the entire sphere of power and functions of the Boards the general public and environmental action groups have not been made a working partner. The Air, Water and Environments Act generally abdicate power to Boards to plan Nationwide programme¹⁰⁵ by laying down of standard of quality¹⁰⁶ activising State Government with respect to suitability of localities of industries¹⁰⁷ and to take all measures which are expedient for control of air pollution. Identification, demarcation and alation of air pollution area the State Government is only supposed to consult State Board¹⁰⁸. Such an important step is to be taken without any public feedback and hearing. So much so while granting consent, the Board is not under a duty to solícite the opinion of voluntary groups and local people¹⁰⁹. This is equally true in case of watch and vigilance¹¹⁰.

Environmental laws are many. In spite of so many laws, the implementation process is moving at snail's pace. Fundamentally a research has to be undertaken to see why some of these laws are toothless. According to Justice Krishna Iyer, the impotency of law is to be tackled by including environmental issues under the umbrella of public interest litigation. A right to information emphatically exercised and backed by powerful public support would bring in some fear to violators of law. In India we have the National Commission for Women and the National Human Rights Commission, which have played a very big role in curbing the atrocities taking place in these respective fields. Such a Commission should be set up especially for environmental issues- they cannot be clubbed with other

¹⁰⁴ Md Zafar Mahfooz Nomani, Community action and environmental protection: A review of Legal Judicial Mechanism, Indian Bar Review, Vol. 29 (3 & 4) 2002, P.9.

¹⁰⁵ Section 16 (b), The Environment Protection Act 1986.

¹⁰⁶ Id Section 17 (b).

¹⁰⁷ Id Section 17 (h).

¹⁰⁸ Id Section 19, The Air Act, 1981.

¹⁰⁹ Id Section 21.

¹¹⁰ Id Section 24.

litigations. Special courts or tribunals can be empowered to adjudicate upon such matters. Justice Krishnaswami Iyer also recommends the existence of a seasoned and knowledgeable person to play the role of an 'Environment Ombudsman'. Participative social active groups can become catalyst to encourage and activate people and link them with the legal process. It is very important to create awareness among people as well as prevent them from misuse of nature.

There should be provisions like Wildlife Protection Act passed in 1972 seems more sensitive towards public participation. In the constitution of Wildlife Advisory Board the State Government is empowered to nominate ten persons who is in the opinion of State Government are interested in protection of Wildlife including three representatives of Tribal¹¹¹. To boost general public the Act contains a very salubrious provision to reward person who helps in the detection of the offence. It provides that out of the Fine collected from the culprit 25 percent should be paid as a reward to the person who renders assistance in detection of the offence¹¹².

There are similar provisions provided in the Forest Act 1927 where mandatory duty on the person exercising any right in reserved forest to assist Forest and Police officials with information regarding the likely offences. Therefore, the Air Act must have legal provisions engraved into it to check pollution with the help of public. Public participation to assist the Board to ascertain pollution is required to be embedded into the Air Act.

The Forest Conservation Act, 1981, is equally sensitive to solicit the opinion of non-government specialists in the Advisory Committee¹¹³. The National Environment Tribunal Act, 1995, passed facilitate information sharing in environmental dispute resolution inducts one environmentalist in the Tribunal¹¹⁴.

¹¹¹ Section 60, The Wildlife Act, 1972.

¹¹² Id Section 60-A.

¹¹³ Section 3 & Rule 2A, The Forest Conservation Act, 1981.

¹¹⁴ Section 4, The National Environment Tribunal Act, 1995.

The weaknesses in the Pollution Acts are that there was no machinery to ensure their implementation. Workers and citizens were neither given access to information nor the right to monitor or use any industry without the permission of the Board.

One of the surest ways of controlling and monitoring pollution would be to give powers to workers to stop a plant if emission levels cross the prescribed limits. The Clean Air Act of USA provides for this. The US Act also provides that no worker raising the issue of pollution or calling for stoppage of work due to apprehension of excessive emission shall be discharged or discriminated against. Swedish law allows workers to strike work in the event of flouting of environment regulations by the management. Far from trying to solve this problem, the Environment Act refuses to even address itself to this question.

Industries under the Pollution Acts are accountable only if the Pollution Board officials decide to do so. Lack of infrastructure, political pressure and corruption has resulted in the Boards allowing the industries to go scot-free. The Environment Act does not solve any of these problems.

The individual's right also does not stand on a better footing. This is because the individual cannot proceed with his complaint, if on receiving 60 days notice; the Government communicates to the individual its decision not to file a complaint. This section has been partly borrowed from Section 7604 of the American Clean Air Act. Under the U.S. Act 60 day's notice has to be given. However, if the Government communicates its refusal to file a complaint, the individual can proceed with his own case. An individual will be stopped only if 'the State has commenced and is diligently prosecuting an action in Court'. Even in such cases, any individual can intervene as a matter of right. Under our Act, citizens, worker and environmental groups are neither given access to any data nor any right to commence independent action. This is a major flaw in the Act.

5.3. Vehicular Pollution and Legislative Development

Vehicular Pollution is one of the major sources of air pollution. The immense crush of pedestrians and vehicles of all sorts that clog the streets often overwhelm every big city. The noise, congestion and confusion of traffic make it suicidal to venture into the street. Surveys indicate that India's vehicular pollution has increased eight times over past two decades, while pollution from industries has quadrupled. The legislative measures for control of automobile air pollution require a careful examination. Before going through the legislative measures one is required to understand the gravity of the problem, in order to bear a clear notion on what should be the legislative measures to check air pollution.

5.3.(i). Gravity of the Problem

Vehicular pollution is the pollution of the air and the environment by the discharge of harmful automobile exhaust. The air which can be said to be healthy for human, animal and plant life is a mixture of gases- 78% Nitrogen, 21% Oxygen, 1% Argon, 0.03% Carbon dioxide and very minor trace of helium, methane, krypton and 1.3% of water vapour by volume. If the relative mix of these gases in the ambient air is disturbed due to any reason, the air become unhealthy or non-conductive to the existence and survival of living organisms. Then the air is said to have become polluted. This problem of air pollution is caused mainly from combustion sources, industrial activities etc. Combustion sources comprise- power plants, domestic cooking and heating equipments producing sulfur dioxide, Nitrogen oxide and particulates in varying concentrations; motor vehicles exhaust emission resulting in pollution by carbon monoxide, smoke, lead and nitrogenous gases.

The major contributor to the atmospheric pollution is the automobile exhaust emission from all types of vehicles. Automobiles generate 90% of Carbon Monoxide in the major urban areas. The remaining

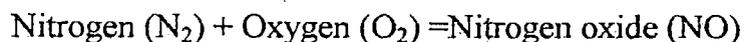
10% is produced by the various industries, power plants and solid wastes. On a global scale 80% of the Carbon monoxide is emitted by degradation of organic matter.¹¹⁵

Unlike other gaseous pollutants, Carbon monoxide passes through the lungs directly into the blood stream and since there is a great affinity¹¹⁶ of the haemoglobin for Carbon monoxide molecules the Carbon monoxide reacts with the haemoglobin in the blood converting the easy flowing liquid substance into a jam like substance hindering the flow of blood in the circulatory system. Once the circulatory system is jammed organs fail to function as a result of non-supply of blood from the heart to the brain and other areas. In such an event a person dies from suffocation and the process is known as Asphyxiation. This is the most immediate effect caused by the dreaded pollutant and people in the West, especially the US apply this method to commit suicide.

As per the Bhurelal Committee's Report¹¹⁷ more than 90% of nitrogen dioxide and respirable particulate matter or suspended particulate matter in Delhi come from vehicle exhausts.

Ordinarily nitrogen and oxygen do not react directly under normal circumstances, but high temperature as found in combustion reaction in automobile cylinders facilitates a direct combination and as a result reaction between them take place producing nitrogen oxide (NO) and as soon as Nitrogen oxide from the hot exhaust of the automobile hits the outside air, it reacts with more oxygen in thin air and produce nitrogen dioxide. The reaction takes place as follows¹¹⁸:

I st reaction: (inside the automobile engine)



II nd reaction (once it comes out from the hot exhaust and reacts with the oxygen in the air outside):

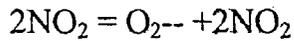
¹¹⁵ Das, Sharma and Agarwal, An Introduction to Physical Chemistry, 1997, p.182.

¹¹⁶ Carbon monoxide binds to the haemoglobin 200 times more strongly than oxygen.

¹¹⁷ *M.C.Mehta vs. Union of India*, (1999) 6 SCC, p.9.

¹¹⁸ K.N.Upadhyaya, A text book of Organic Chemistry (1992), p.190.

Nitrogen oxide + Oxygen = Nitrogen dioxide



Though both nitrogen oxide and nitrogen dioxide are toxic gases, the latter is far more harmful than the former. Breathing nitrogen dioxide in large concentration causes chronic lung diseases even death. It also causes Chlorosis or loss of the normal green coloration of leaves and extensive leaf drop in plants. It also plays a part in producing Ozone in the lower layers of the atmosphere (ozone layer in the upper layers of the atmosphere is important for providing protection from ultra violet rays of the Sun), which is harmful since it is present in smog, a mixture of smoke and fog, which has been creating problems to the aeroplanes in landing and the driving of vehicles on the roads. Nitrogen dioxide also causes irritation to the eyes and respiratory tracts.

Together with carbon monoxide and oxides of nitrogen, a large percentage of hydrocarbons are also emitted by vehicles. Such gases cause the green house effect and as such the reason for global warming. It also is one of the factors for depletion of the ozone layer, which is found in the outer layer of the atmosphere and is responsible for the protection from the Ultra Violet Sunrays, which is the main cause for skin cancer.

Suspended particulate matter is one of the major products in vehicular pollution. It is an enormously complex category of solids and liquids found in the air space and is of two types, both manmade and natural. Manmade suspended particulate matter are the creation of various activities carried on by man in a modern industrialized world such as industries and vehicles to name a few, and as such can be minimized down to zero levels whereas Natural suspended particulate matter can never be nil and as such there is always some amount of suspended or respiratory particulate matter in the atmosphere, e.g. dust.

Of all the toxic metals found in the atmosphere in the form of suspended particulate matter, Lead is the one present in large concentrations and such presence of lead in the atmosphere is the result of burning gasoline.

Lead Tetraethyl is found in petrol or gasoline and is used as an additive to prevent antiknocking of combustion engines in vehicles. Such lead poisoning can lead to chronic lung disease and ultimately lead to cancer of the lungs. In the U.S. the U.S. army has stopped using lead in bullets as per a recent report. The ban is to avoid lead poisoning in the atmosphere since once a bullet is released from the barrel of a gun some toxic lead is bound to pollute the air in such a high temperature when released (fired) from a gun.

The increase in the automotive emission levels effects the ambient air quality especially in urban areas. In India, the major metropolitan cities like Delhi, Mumbai, Kolkata, Bangalore are experiencing pollution of air due to motor vehicles. The transport sector is the largest emitter of Carbon monoxide (CO), Nitrogen oxides (NO) and Hydrocarbons (HC) into the air. Gasoline- run vehicles contribute the most of the Carbon monoxide, Hydrocarbons and lead (Pb), while diesel vehicles are the chief source of particulate and Sulphur dioxide. Emission statistics indicate that vehicular pollution is responsible for a shocking 64% of the total air pollution load from various sources in Delhi, 52% in Mumbai.

The facts and figures available from the report of the monitoring Committee on ambient and automotive emission levels are such that on March 31, 1982 Delhi had a total number of 5,92,544 vehicles. The vehicular population of 1990 was 13.5 as is evident from the affidavit of the Deputy Director of Transport of the Delhi Administration.¹¹⁹ This means that within about 8 years there has been increase of about 8 lakh vehicles in Delhi, which would work out to an addition of one-lakh vehicles per year. Though the Deputy Director of Transport has indicated that the automobile contribute about 50% of the polluting factor there is material to suggest that the proportion is still higher.

The problem of air pollution from vehicles in cities has a serious effect on the health of the citizens. Carbon dioxide and Carbon monoxide emitted out by combustion of fuel created a green house effect in the cities,

¹¹⁹ In *M.C.Mehta vs. Union of India* (1991) 2 SCC 353 (Para 10)

making them hotter in the summer and colder in winter. The high rate of air pollutant emission is usually due to poor maintenance of vehicles, poor upkeep of roads, frequent traffic jams, use of over aged vehicles and over loading etc. If we examine the various factors contributing to environmental pollution, we shall find combustion engines as a major source of air pollution. Different fuels in these engines include coal, petrol, gasoline, kerosene and diesel. Black and heavy smokes are produced when these fuels are burnt. In metropolitan cities and urban areas where automobiles and numerous industries are the common features, the major air pollutants are contained in the Smoke generated by internal combustion engines used in running vehicles like buses, cars, scooters, trucks etc, on the roads. The most common fuels used in most of these engines are gasoline. When a mixture of air and gasoline vapour burn, the reaction most likely to occur is represented by the equation¹²⁰



meaning that when the vapour (octane) burns with the help of Oxygen heat energy is released together with Carbon dioxide and water vapour.

If the combustion action is complete as indicated in the above equation, the problem is not to be acute. But the combustion reaction in an automobile engine is not totally complete no matter how efficient the engine is. It is also clear that there are several impurities in form of Sulphur, Benzene, lead etc, which would burn with the fuel and release various poisonous gases. Even ill maintained vehicle is another source of pollution.

Therefore, proper control of vehicular pollution is possible by proper planning and control through various measures like maintenance of roads, withdrawal of over aged vehicles, by implementing the direction of Supreme Court through installation or upgrading of the vehicles into eco-friendly ones. Using of proper fuel and anti pollution devices should also be developed to minimize vehicular pollution. Another basic problem for the rise in the air pollution by vehicles and other relative agents have been due

¹²⁰ K.N. Upadhyay, A text book of Organic Chemistry, (1992), p.184.

to lack of awareness among the masses and limited information regarding such problems.

5.3.(ii). The Legal Control of Automobile Air Pollution in India

The legislature on environment pollution does not effectively cover the entire aspect of vehicular pollution. The substantive law for curbing menace caused by vehicular pollution is however not sufficient. The problem arises also because its application is not carried out as expected. The legislations dealing with the provisions relating to pollution by transport are; The Environment (Protection) Act 1986 along with the Environment Protection Rules,¹²¹ the Air (Prevention and Control of Pollution) Act, 1981 and the Motor Vehicles Act amended in 1988 along with the Motor Vehicles Rules 1989. These legislations mainly contain provisions regarding control of smoke emission, noise pollution caused by vehicular traffic etc.

(a) Prevention under The Environment (Protection) Act, 1986

The Environment (Protection) Act 1986 was not enacted keeping in mind the perils of vehicular pollution. The legislation, however, does not totally skip the area connected with vehicular pollution. Some sections under the Act have been utilized to check vehicular pollution through judicial activism. One of the sections under which authority was constituted to check vehicular pollution is section 3.¹²² Section 3(1) empowers the Central Government to take all necessary steps to improve and protect environment. Since, vehicular pollution qualifies very much as environment pollution as per the definition of 'environment' under the Act. The Central Government is thus invested with the power to take any measures to prevent, control and abate such pollution as a reason to protect and improve the environment quality. The Supreme Court in *M.C.Mehta vs.*

¹²¹ 1986, mentioning the prescribed standards to be maintained by different types of vehicles using different fuels.

¹²² In *M.C.Mehta vs Union of India* AIR 1998 SC 2963

*Union of India*¹²³ has opined that even the Norms fixed under the Motor Vehicles Act are in addition to and not in derogation to the requirements of Environment (Protection) Act, 1986.

The provision under section 3 (2) of the Act empowers the Central Government to co-ordinate the actions by the State Government, Officers and other authorities that are taken under the Environment Protection Act or Rules made there under. This provision also enables the Central Government to coordinate the actions by State Government, Officers and other authorities under any other law for the time being in force, which is relatable to the objects of this Act. Such coordination is essential as the authorities i.e., the Pollution Control Boards, the Officers or the Committees might be different but their objective is common, so they too should lead towards the common goal to protect and improve the quality of environment.

Under section 3 of the Environment Protection Act the Central Government has also been empowered to constitute an authority for performing powers and function of the Central Government. The authority headed by Mr. Bhurelal happens to be an example of such an authority. The Supreme Court¹²⁴ has opined that since the Committee had been set up under the Environment Protection Act, it could give directions towards effective implementation of the safeguards of Environment Protection Act, more particularly aimed at preventing air pollution. The Committee was also said to have legal sanctions. The Committee was known as the "Environment Pollution (Protection and Control) Authority" for the National Capital Region for preparing and submitting a report for the steps and measures to be taken for controlling vehicular pollution and connected matters.

There are some other important provisions also besides the above-mentioned functions of the State, which are very important for curbing vehicular pollution. These measures include the planning and execution of Nation wide programme for the prevention, control and

¹²³ AIR 2001 SC 1950

¹²⁴ Ibid

abatement of environmental pollution¹²⁵, laying down standards for the quality of environment in its various aspects¹²⁶ and laying down standards for emission discharge of environment pollutants from various sources whatsoever.¹²⁷ In the exercise of the power to take measures under section 3 (2)(iv) of the Act the Government has laid down the standards for emission or discharge of environmental pollutants. Such standards are to be maintained by the person in charge of the source, which emits environmental pollutants, for e.g. the driver or the person in charge of the vehicle has to maintain the prescribed Standard laid down for emission. These standards are provided in the Environment (Protection) Rules, 1986 by the concerned authority after deriving power conferred by sections 6 and 25 of the Environment (Protection) Act 1986.

(b) Prevention under The Air (Prevention and Control of Pollution) Act 1981

The Air Act¹²⁸ also deals with any activity that pollutes the air. Although the Act covers in its ambit noise pollution and pollution caused by vehicle. There is only little more than one section in the whole Act that mentions pollution of vehicular traffic but this is also not an active provision because it does not penalize the erring vehicles. The specific section, which is related to vehicular pollution, is section 17(1)(g). This section provides that it is the function of the State Board to lay down in consultation with the Central Board, standards for emission of air pollutants. Section 20 of the Act seems to be more substantive in attaining the object of preventing quality of by controlling vehicular pollution. This section empowers the State Government to give instructions to the concerned authorities in charge of registration of motor vehicles under the Motor Vehicles Act, 1988 for ensuring standards for emission from automobiles. This section further

¹²⁵ Section 3(ii) of the Act.

¹²⁶ Section 3(iii) of the Act

¹²⁷ Section 3(iv) of the Act

¹²⁸ Air (Prevention and Control of Pollution) Act 1981

provides that the standard for emission of air pollutants from automobile, laid down by the State Board¹²⁹ should be complied with by such authorities notwithstanding anything contained in the Motor Vehicles Act and Rules. Thus a registering authority while registering a motor vehicle can refuse to register the said vehicle if the vehicle fails to comply with the emission standard prescribed by the State Board in consultation with Central Pollution Control Board. Such a refusal can be made even though the said vehicle fulfils all the conditions required for registration as per Motor Vehicles Act, 1988.

The standard for emission of air pollutants from vehicles vary from place to place, urban areas have much higher standards as compared to rural areas because of the density of traffic and such standards are followed more stringently in cities than in small rural town as a result of the concentration of the enforcement machinery. The Central Government or the State Government has powers to make rules in relation to such instructions and thus we find the Central Motor Vehicles Rules, 1989 and the respective State Motor Vehicles Rules.

In *Santosh Kumar vs. Secretary, Ministry of Environment, New Delhi*,¹³⁰ two Writ petitions had been filed in respect of pollution of air in the City of Gwalior and surrounding areas on account of plying of a large number of motor vehicles using unauthorized kerosene and diesel oil causing health hazards to the local inhabitants. The Court quoting section 20 of the Air Pollution Act 1981 and Rules 115 and 116 of the Central Motor Vehicles Rules opined that the vehicle failed to comply with the prescribed standard of vehicular emissions is bound to have its registration suspended and together with the permit, if any granted in respect of vehicles under Chapter V or Chapter VI of the Motor Vehicles Act, 1988 until a fresh pollution under Control Certificate is obtained. Therefore, the provisions found in the Air (Prevention and Control of Pollution) Act, 1981 for control

¹²⁹ Under Section 17 (1) (g)

¹³⁰ AIR 1998 MP 43

of vehicular pollution provide a general guideline to prevent and control pollution.

(c) Prevention under The Motor Vehicles Act 1988

The Motor Vehicles Act, 1988 came into force after the repeal of the Motor Vehicles Act 1939. The Act consists of altogether two hundred and seventeen sections divided into fourteen chapters with two schedules. Out of the said two hundred and seventeen sections only few sections deals with the menace of vehicular pollution. The Act together with the Motor Vehicle (Amendment) Act, 1994, strives to minimize the problem of vehicular pollution. The Motor Vehicles Act 1988 with its timely amendments is a comprehensive legislation regarding the regulation of vehicles and helps in dealing with matters incidental to the running of a motor vehicle. The Act, however, is unable to eradicate vehicular pollution because there are various other factors also, which may lead to atmospheric pollution besides simple reason of vehicular activity. Vehicular pollution may be due to improper driving of a vehicle, improper maintenance of a vehicle, traffic jams etc. The Act and the Motor Vehicles Rules 1989 contain provisions regarding control of smoke emission, noise pollution caused by vehicular traffic etc.

Chapter VII of the Motor Vehicles Act, 1988, is more or less directly connected with vehicular pollution. Chapter VIII consists of three sections¹³¹ dealing with construction, equipment and maintenance of motor vehicles. Under subsection (3) of section 109 some measures for curbing the menace for vehicular pollution is embedded. According to this sub section if the Central Government is of the opinion that it is necessary or expedient so to do, in public interest, it may by order in Official Gazette, notify that any article or process used by a manufacture shall conform to such standard as may be specified in that order. In pursuant to this sub section the Supreme Court had directed that any four wheeler manufactured or sold after April 1,

¹³¹ Sections 109, 110 and 111

1995 in Delhi was to be fitted with a catalytic converter, which would minimize the level of pollution by helping the vehicle in maintaining the prescribed standard for vehicular emissions.¹³²

Section 110 of this Act empowers the Central Government to frame Rules regulating the construction, equipment and maintenance of motor vehicles and trailers with respect to all or any of the matter named in subsection (i) of section 110. Among these Clauses, Clause (g) empowers the Central Government to make Rules for regulating the emission of smoke, visible vapour, sparks, ashes, grit or oil. Clause (h) empowers the Central Government to make Rules for the reduction of noise emitted by or caused by vehicles. The Central Government in pursuance of the power conferred under section 110(g) and (h) framed the Rules known "the Central Motor Vehicles Rules, 1989"

(d) Prevention under The Motor Vehicles Rules 1989

The Motor Vehicles Rules, 1989 provides for certain important provisions relating to the prevention of air. The Rules relating to emissions, smoke, vapour, ashes, grit and oil have been provided under Rule 112, Rule 115 and Rule 116. Rule 113 provides for location of exhaust pipes and Rule 114 lays down provision for exhaust pipes of public service vehicles. These Rules are being discussed hereunder.

Rule 112

Every motor vehicle shall be so constructed or equipped that the exhaust gases from the engine are discharged neither down nor to the left side of the vehicle and shall be so fitted as to allow the gases to escape to the right side or rear of the vehicle.

Provided that in the case of tankers carrying explosives and inflammable goods, the figment of the exhaust pipe shall be according to the specification of the Inspector of Explosives.

¹³² Section 109 (3) of the Act, 1988 inserted by the Motor Vehicle (Amendment) Act 1994, or Act 54 of 1994.

Provided further that in the case of tractors, vertical exhaust pipe may be provided.

Rule 113: Location of exhaust pipes

On and from the date of commencement of this sub-rule, no exhaust pipe shall be located within a distance of 35 millimeter from the fuel line connecting to the fuel tank and engine.

Rule 114: Exhaust pipes of public service vehicles

The exhaust pipe of public service behind shall be so fitted or shielded that no inflammable material is thrown upon it from any other part of the vehicle and that it is not likely to cause a fire through proximity to any inflammable material on the vehicle.

Rule 115: Emission of smoke, vapour, etc. from motor vehicle

(1) Every motor vehicle shall be manufactured and maintained in such condition and shall be so driven that smoke, visible vapour, grit sparks, ashes, cinders or oily substance do not emit there from.

(2) On and from the date of commencement of this sub-rule, every motor vehicle shall comply with the following standards:

- (a) Idling CO (carbon monoxide) emission limit for all four-wheeled petrol driven vehicles shall not exceed 3 percent by volume.
- (b) Idling CO emission limit for all two and three-wheeled petrol driven vehicles shall not exceed 4.5 percent by volume.
- (c) Smoke density for all diesel driven vehicles shall be as follows:

| Method of test | Maximum smoke density | | |
|----------------|-----------------------|-------|-----------|
| | Light Absorption | Bosch | Hartridge |
| | Coeffiml. | Units | Units |

(a) For vehicles other than

| | | | |
|--|-----|----|----|
| agricultural tractors | | | |
| (i) Full load at a speed of 3.1 60% to 70% of maximum engine rated speed declared by the manufacturer | 5.2 | 75 | |
| (ii) Free acceleration | 2.3 | - | 65 |

(3) On and from the date of commencement of this sub-rule all petrol-driven vehicles shall be so manufactured that they comply with the mass emission standards as specified at Annexure 'I'. The breakdown of the operating cycle used for the test shall be as specified at Annexure 'II' and the reference for all such less shall be specified in Annexure 'III' to these rules.

(4) On and from the date of commencement of this sub-rule, all diesel-driven vehicles shall be so manufactured that they comply with following based on exhaust gas capacity as specified at Annexure 'IV' to these rules.

(5) On and from the date of commencement of this sub-rule as diesel-driven vehicles shall be so manufactured that they comply with the following levels of emissions under the Indian driving conditions:

| | |
|------------------------------|-----|
| Mass of Carbon Monoxide (CO) | 14% |
|------------------------------|-----|

Max. Grams per K.W.H.

| | |
|---------------------------|--|
| Mass of Hydrocarbons (HC) | |
|---------------------------|--|

3.5

Max. Grams per K.W.H.

| | |
|-----------------------------|----|
| Mass of Nitrogen Oxide (NO) | 18 |
|-----------------------------|----|

Max. Grams per K.W.H.

(6) Each motor vehicle manufactured on and after the dates specified in sub-rules (2), (3), (4) or (5) shall be certified by the manufacturers to be conforming to the standards specified in the said sub-sections and further

certify that the components liable to effect the emission of gaseous pollutants are so designed, constructed and assembled as to enable the vehicle in normal use despite the vibration to which it may be subjected, to comply with the provisions of the said sub-rule.

Rule 116: Test for smoke emission level and carbon monoxide level for motor vehicles¹³³

This rule provides that notwithstanding anything in sub-rule 7 of Rule 115¹³⁴ any officer not below the rank of a sub-Inspector of Police or the Inspector of Motor vehicles who has reason to believe that a motor vehicle is not complying with the provision of sub rule (2) or sub rule (7) of Rule 115, may in writing direct the driver or any person in charge of the vehicle to submit the vehicle for conducting the test to measure the standards of emission in anyone of the testing stations, and to produce the certificate to the authority at the address mentioned in the written direction within 7 days from the date of conducting the check.

The measurement for compliance of the provisions of sub rule (2) of Rule 115 shall be done with a type of meter of a type approved by the agency referred to in Rule 126 of the principal rule or by the National Environment Research Institute, Nagpur-440001. Provided that such a testing agency shall follow 180 or ECE Standards or procedures for approval of measuring meters.

There have been proposals made requiring a careful review of the legislative measures for control of automobile air pollution by Prof. B.S.Murthy¹³⁵. It was opined by Prof.Murthy that in the present form the legislative measures are not appropriate to the prevailing condition in our country. These provisions are not fully backed up by scientific and technological considerations. According to him, the foremost factor that has

¹³³ This Rule 116 was substituted by amendment on 26th March 1993.

¹³⁴ Sub rule 7 of Rule 115 provides that after the expiry of a period of one year from the date on which vehicle was first registered, every such vehicle shall carry a valid 'Pollution under Control' certificate issued by an agency authorized for this purpose by the State.

¹³⁵ Former Professor, IIT, Chennai.

to be considered is the revision of the "Pollution under control or Emission under control certificate procedures (PUCC or EUCC)."

The origin of these certificates goes to the so-called "Smoke Check Certificates" which is mandated in advanced countries of the world like USA. As applied to petrol engines, these are roadside emission checks conducted periodically on the vehicles by taking samples in the tail pipe when the vehicle is stationary with the engine idling. Both unburned hydrocarbons (HC or UBF) and carbon monoxide (CO) are measured and checked whether they are within the prescribed limits. These tests are done at two speeds- one at idling and the other at specified intermediate speed. But in our national standards, only volumetric emission of CO is mandated and checked for the issuance of PUC certificates (upper limit by volume of 4.5% for two-stroke and 3% for four-stroke vehicles). The instrument used in the standard non-dispersive infrared analyzer (NDIR), which has selective absorbance for both CO and UBF at two discrete frequencies and hence can measure both CO and UBF. Yet, many pollution control stations give in addition the level of UBF in their printouts though the level of HC emission is not under mandatory regulation. Recall that unburned hydrocarbons are hazardous emissions as there is so much concern over cancer and other respiratory disease. During idling, nearly 85g/kg petrol of unburned HC is emitted in the exhaust of an uncontrolled four-stroke car and in a two-stroke vehicle this will be about twice due to direct short-circuiting of raw petrol through exhaust ports. While carbon monoxide level in g/kg petrol is more or less same during transients like idling, acceleration and deceleration, the level of HC will vary very drastically- the level some times going to quarter the mass of petrol during deceleration. Detection and control of both CO and UBF at idling speed and at another intermediate speed should be considered for regulatory purposes when reviewing the PUC regulations. The PUC tests, do not characterize the complete emissions under actual driving conditions, which includes transients like acceleration, deceleration and

steady state cruising all under varying driving conditions.¹³⁶

The term "Pollution Under Control" itself is misleading since it does not do justice to the public who, as customers, get these certificates with the hope that they are paying for the control of total air pollution. At best, this is an idling tailpipe emission check only for CO. As far as petrol driven vehicles are concerned, it is therefore better to suspend the PUC certificate procedure as it stands, till more meaningful regulations are formulated keeping in step with the progress of technology. Regarding the diesel vehicles, a smoke meter is used and the opacity of the smoke is assessed by a light meter. These tests too are static tests conducted when the vehicle is stationary with the warmed-up engine running, when subjected to free acceleration with the sampling probe stuck in the tail pipe. The exhaust sample passes through the Hartridge smoke meter, which is the preferred imported meter used by the testing authorities. An average value of the prescribed number of readings gives the smoke number in Hart ridge numbers. The upper limit around 65 is the prescribed smoke limit. These tests have elaborate procedures and the meter requires careful calibration and adjustments. Let us recognize that the diesel vehicle emits visible smoke unlike its petrol driven counterpart. The human eye is the best smoke meter to detect smoking vehicles. First we can isolate offending vehicles by eye judgment alone. Black smoke (soot), on account of overloading results from incomplete combustion and is easily discernable to the naked eyes. Poorly maintained old engines emit blue smoke on account of burning of lube oil, while white smoke is indicative of partially burned fuel due to long periods of idling and use of adulterated fuel. Trained personnel can check these abnormal conditions, and only offending vehicles can be short listed and subject to elaborate smoke meter tests. Proper maintenance and repair and avoiding overloading and erratic running alone will reduce diesel smoke to a large extent. India has a skillful technical-workforce, which would find employment in reconditioning old vehicles. A blanket decision to replace all

¹³⁶ The Hindu, May 31, 2002.

old vehicles (which have no place for dumping) would eventually profit MNCs who are ready to find market in India. Soon after economic liberalization and open market competition in the late eighties, India embarked on meeting with the Euro emission standards and catch up, in a short time, with the stringent standards of Europe to enter into global competition. Conformance to these stringent norms by the vehicle manufacturers is certainly necessary for global export market. For domestic market, conformance to these Euro norms does not produce the desired improvement in air quality. Without standard fuels, road infrastructure, traffic management, maintenance and repair schedules conforming to Euro standards, it is a futile exercise to insist on conformance to Euro emission standards for domestic markets.

If the results of the test indicate that the motor vehicle complies with the provision of Rule 115 (2), the driver or any person in charge of the vehicle shall produce the certificate to the authority specified in sub-rule (1) within the stipulated time. If the result indicates that the motor vehicle does not comply with the provisions of Rule 115 (2), the driver or in charge of the vehicle shall rectify the defects so as to comply with Rule 115 (2) within a period of 7 days. If the vehicle fails to do so within a period of 7 days, the owner of the vehicle shall be liable for penalty prescribed under sub section (2) of section 190 of the Act.

Section 190 (2) of the said Act provides that any person who drives or causes or allows to be driven in any public place any motor vehicle, which violates the standards prescribed in relation to road safety, control of noise or air pollution, shall be punishable for the first offence with a fine of one thousand rupees and for any second or subsequent of offence with a fine of two thousand rupees. Section 190 provides the punishment for using vehicles in unsafe conditions. This penal section acts as a deterrent to erring person and would impose a duty on the owner to maintain the vehicle properly. Further, any person who drives or causes or allows to be driven in a public place a motor vehicle, which violates the provisions of the Act or

Rules made there under relating to the carriage of good which are of dangerous or hazardous nature to human life shall be punishable for the first offence with fine which may extend to three thousand rupees or with imprisonment for a term which may extend to one year or both. For any second or subsequent offence, with fine which may extent to five thousand rupees or with imprisonment for a term which may extend to three years or both.¹³⁷

The vehicle contravening the provision of Rule 115 (2) and not producing the said certificate within 7 days according 116 (1) is to be reported by the checking officer to the registering authority. The registering authority shall on receipt of the report of the checking officer, on the basis of the report and for reasons to be recorded in writing suspend the certificate of registration of the vehicle. This suspension of registration would also suspend the grant of permit, if any. This would result in disallowing the plying of the vehicle on road, because such an act would attract sections 192 and 192A of the Act. But the implementation of the section 116 (1) seldom occurs. Usually the vehicle polluting is charged and allowed to compound the offence. This provision allows the vehicle to pollute the atmosphere for 7 more days. The notice of 7 days allows the owner to escape liability, as the owner would usually obtain 'pollution under control' certificate only after being charged for contravening section 115 (2). The deterrent effect of the section does not occur due to the period of 7 days Notice in *Urmi Ghosal vs. State*¹³⁸ we find that the appellant contended that if the emission level was exceeding the standard and still 'pollution under control' certificate was issued by the concerned authority. It was the fault of the authority issuing the certificate. The Court therefore held that the appellant was not liable and there was no direction given by the Court for issue of such certificate by the concerned agency. This is what practically occurs, at times the persons issuing 'pollution under control' certificate do not verify properly. There is

¹³⁷ Section 190 (3)

¹³⁸ AIR CAL

not verify properly. There is negligence on their part and nobody to check such negligence. The Pollution Control Board should be given power for looking into the implementation of the emission standard under section 17 (1)(g) of the Air Pollution Act. Section 17 (1)(g) only empowers the Pollution Control Board to lay down the standards, but it does not speak anything relating to the power given for looking into its implementation. They must be empowered to check the instruments and to check whether the person issuing such certificate is working diligently. If effective implementation of the provision is not done the legislation would be meaningless.

Further, it may be pointed out here that the notice of seven days delays the process to check vehicular pollution. Since, vehicular pollution today contributes 70% towards the pollution of air, the law should be more stringent. The authorities must check the vehicle polluting the atmosphere frequently. If it exceeds the emission standard, fine must be imposed on spot.

5.3.(iii). Implementation of Legal measures: A review.

After examining and going through the substantive law, we would find that the law today does not cover almost all the aspects to deal with vehicular pollution. The main problem lies with the enforcing agencies. In addition to the enforcement agencies there are other problems, which must be looked into. One of them is the issue of 'pollution under control' certificate, which are not backed by scientific considerations. The problem of traffic jam, which is due to the roads, also contributes to increase in pollution. Without standard fuels, road infrastructure, traffic management, maintenance and repair schedules conforming to Euro standards, it is a futile exercise to insist on conformance to Euro emission standards for domestic markets. The introduction of the implementation of technology into the engines which would give total fuel consumption. Supply of proper fuels to reduce pollutions should be introduced.

The environmental jurisprudence in India is still in infancy, particularly for the control of atmospheric air pollution from automobiles. The legislative norms, which are currently in force, are fashioned after the Euro norms prevailing in Europe, allowing for a small phase-lag for meeting the stringency. It must be understood that norms in Europe were formulated after a long lead time, allowing for development of associated infrastructures for clean and safe operation of the automobile vehicles, like the road and traffic infrastructure, provision of clean fuel and more importantly manufacture of clean burning engines to power the vehicle and requirements for periodic maintenance systems. USA is rightly credited for giving to the world awareness of the environmental laws for the regulation of air pollution from automobiles. Federal norms came into force in the early 60's, after the crisis of air pollution in the basin of Los Angeles, that claimed many lives and affected many inhabitants with serious respiratory ailments. It was surprising, that no one identified the environmental fact that the high population of automobiles was the cause. In fact, laws were enacted to shift many industries to remote places from the city. From the past experience of the so-called "London particulate smog" in the early 50's in London and Glasgow, smog in California was assumed to be caused by the uncontrolled burning of fuel like coal and oil in the industries located in the bay-area. Eventually, it was given to the Caltech Professor Haagen-Smit to recognize the environmental fact that emission from the automobiles was the real culprit. This brought awareness to the necessity of environmental jurisprudence for regulating the automobile exhaust emissions like Federal test procedure (FTP) norms for passenger cars. Subsequently, other countries in Europe (Euro Norms), and Japan formulated their own regulations suitable to their countries. This experience illustrates that even in industrially advanced countries, there was a big time lag in bridging the gap between environmental laws and environmental facts.¹³⁹

However, through judicial activism we find that the Supreme

¹³⁹ Supra Note 129.

Court has implemented many policies to curb the menace of vehicular pollution in Delhi. The awareness programmes have been launched as per the direction of Supreme Court. Even the Supreme Court went to the extent of confirming that vehicular pollution being detrimental to the environment and poisoned the surrounding atmosphere was a violation of Article 21 of the Constitution, after it perused the Bhure Lal Committee's Report submitted on April 1, 1999.¹⁴⁰

The provision envisage in section 52 of the Act is to a large extent giving help in controlling vehicular pollution. According to this section a person is allowed to alter his vehicle after giving notice to the registering authority within whose jurisdiction he has the residence or the place of business where vehicle is normally kept. It is a positive step if the modification of engine or any part thereof is done for facilitating its operation by converting to single fuel mode on CNG¹⁴¹ (i.e., Compressed natural gas), the other sources of energy include battery or solar energy. The battery driven vehicles and solar driven vehicles would be zero polluting vehicles whereas compressed natural vehicle is zero polluting. As per the order of Supreme Court 3,000 buses of Delhi Transport Corporation was ordered to close down until they were converted into compressed natural gas driven ones. The provision will create problem if the provision is taken for conversion of petrol driven vehicle to diesel driven ones. Such conversion was taking place in numbers due to low cost of diesel fuel. However, the Government announced that it was considering a ban on the conversion of petrol driven vehicles to diesel driven and it may bring amendment to this effect in Motor Vehicles Act of the country.¹⁴²

The Central Pollution Control Board has felt that the containment of vehicular pollution requires an integrated approach, the essential components of which include the following:

(i). Improvement of Public Transport System

¹⁴⁰ *M.C.Mehta v. Union of India* (1999) 6 SCC 9.

¹⁴¹ As directed in *M.C.Mehta vs. Union of India*, AIR 2001 SC 1948.

¹⁴² The Times of India, January 18, 2000.

According to an estimate made by RITES, a modal split of 70-75% in favour of public transport needs to be planned for the city of Delhi. Presently, the modal share of public transport (Bus) is 62 percent. Along with the increase in number of buses, the passenger capacity should also be increased and the engines should conform to urban design. The existing circular ring railway network also requires to be improved. These measures will meet the immediate requirements since the mass rapid transport system (MRTS) will take some years to materialize.

(ii). Traffic Management System

Well planned Traffic management system results in better mobility level on road by providing higher journey speeds and reduced delay at intersection thereby bringing significant reduction in fuel consumption and emission. Automatic traffic control, signal optimisation, tidal flow and removal of encroachments are among the important components of traffic management system. This will reduce the congestion and consequently pollution. Frequent digging of roads and construction work also leads to congestion and pollution, which can be minimized through proper coordination with traffic police.

(iii) Comprehensive Inspection and Certification System

It is a system to reduce the pollution by requiring regular inspection and maintenance of motor vehicles already plying on roads. It identifies those in-use vehicles that need maintenance and repair because they pollute more than the new vehicles. The system helps in reducing the air pollution. Such system is widely used in other countries and it has been possible to reduce about 30-40% of pollution loads by proper inspection and maintenance of vehicles. Such facilities for thorough inspection and maintenance of vehicles are required in different parts of the country.

(iv) Phasing Out of Grossly Polluted Vehicles

Pre- 1990 vehicles emit more than ten times pollutants than the vehicles meeting Euro I norms (India 2000 norms). In Delhi, more than 15-year-old commercial vehicles are not allowed to ply on roads. Similarly, de-

registration of all older vehicles should be made effective so that the grossly polluting vehicles are phased out.

(v) Fuel Quality Improvement

(a) Benzene and aromatics in Petrol

Due to high level of benzene in atmosphere, benzene content of gasoline needs to be reduced to 1% (v/v) or lower as in other countries. With the reduction of benzene in gasoline (<1%) it is possible to achieve significant reduction in benzene emission from exhaust. Benzene and PAH emission also depend upon the aromatic content of gasoline. Therefore, in addition to reduction of benzene, it is also necessary to reduce to aromatic content in petrol.

(b) Sulphur Content in Diesel

Sulphur in diesel has direct effect on SO₂ and particulate emission and indirectly on other pollutants due to its poisoning effect on catalytic converter. In European countries, sulphur content in diesel has been reduced to 0.005 from the year 2000.

(c) Reformulated gasoline

Reformulated gasoline with the use of oxygenates and additives etc. help reducing pollution load from on-road vehicles. According to a study commissioned by CPCB, 3-5% ethanol can be used in petrol without affecting the engine performance and with the attendant benefits in terms of emission control.

(vi) Tightening of emission norms

The emission norms effective from 2005 need to be further tightened to offset the increase of pollution load due to exponential growth of vehicles. It is time to bridge the gap between Euro norms and Indian norms. Euro IV norms for petrol vehicles and diesel passenger cars and Euro III norms for heavy diesel vehicles may be a preferred target for 2005.

(vii) Improvement in Vehicles

In India, majority of vehicles is of two stroke engines. Although the two stroke engine technology for 2 or 3 – wheelers has been upgraded to

some extent there is not much improvement in control of hydrocarbons and particulate (due to combustion of lube oil). Hence, it is necessary to consider as to whether 2-stroke technology should be replaced by 4-stroke technology for reducing the emission specially in terms of hydrocarbons and particulate matter apart from increased fuel efficiency in 4-stroke engines.

The On Board Diagnostic System (OBD) electronically records the fault and their causes in combination with various Diagnostic Strategies to enable vehicle owner/driver to take corrective action. This is one of the requirements of emission regulation in USA and it will be followed in Europe from year 2000 which will be a part of Euro III norm for 2000.

(viii) Checking Fuel Adulteration

Adulteration of fuel plays a major role in emission of pollutants from on roads vehicles. Effective measures are required to prevent adulteration of fuel.

(ix) Evaporative Emission Control

To minimise evaporation losses of fuel and consequent pollution, adequate preventive step need to be taken during storage, loading, unloading and distribution. Vapour recovery system in the filling stations is yet another important measure for reducing evaporative losses.

MEASURES TO CURB ADULTERATION OF FUEL

An Anti Adulteration Cell (AAC) was set up in March, 2001, with Regional Offices in the four Metros. The cell would draw officers from the police, revenue services, sales tax as well as administration to give a multi disciplinary approach with focus on curbing adulteration. AAC launched its website (www.antiadulterationcell.com or www.aacindia.org) dedicated for receiving complaints/suggestions from general public all over the country against adulteration and other malpractices seen or suspected in distribution of petroleum products. A state-of-the-art fuel-testing laboratory has been set up at Noida (U.P.) at a cost of Rs. 15 crores. The number of mobile laboratories, which conduct surprise inspection at petrol pumps has

been increased from 22 to 50 throughout the country.

This is no doubt an effective measure towards a positive direction to curb the problem of adulterated fuel from being used in vehicles. Which would in turn resolve to some extent the problem of vehicular pollution, which some times aggravate due to the use of adulterated fuels in automobiles.

5.4. Noise Pollution and Rule to Control Noise

In our country some attention has paid to water and air pollution but no attention was paid to the ever-increasing problems of noise pollution either at the State or Central Government level. There is not a single iota of doubt about the dangerous situation created by the noise pollution and it should be found and tackled on war footing. Human beings live as a part of a complex natural system with aspects of interdependence.

Various sources of pollution are found to have damaging effects on the behaviour of human beings and some of the effects are so serious that they create risk even for their survival. Frightened by these serious consequences psychologists, scientists, administrators and legal experts have started studying the effects of these pollutions on different and various aspects of human functions in a systematic and empirical manner. Subsequently, various new disciplines relating to ecology have developed, e.g., ecological sciences, ecological psychology and laws for the prevention and control of the pollution. Under these disciplines causes of pollution and its control are being studied throughout the globe.

Noise is one of the main pollutants of the environment causing various hazardous consequences for human life. Excessive noise is an inescapable product of industrial environment, which is increasing very fast with the advancement in industrialization. Motors, horns, printing presses, riveters, drills, lathes, heavy machinery work and movement roadside amusements, blaring loudspeakers and radios, supersonic aero planes, construction works in urban areas, urban crowding and all assets of industrial revolution have

become our irritants and a source of environmental annoyance. Noise not only impairs our sensibility to auditory stimuli masking effects, it has behavioural and psychological consequences also. Its effects on human beings may be classified under three categories, namely, physiological, behavioral and personological.

Physiological Effects: Intense and shrilling noise may over power the simple and combined tones and thus auditory receptors fail to respond to the stimulus properly. Thus, the auditory threshold will go up. Some empirical research conducted on animals (especially pregnant female mice) which are not possible to be conducted on human beings on ethical and moral grounds reveal that aircrafts taking off which brings in 120 to 150 decibels caused miscarriages in them. If the findings hold generalizability, high noise is capable to create these disturbances in human beings also. Prolonged and continuous noise of 95 decibels causes deafness and significant rise in blood pressure.

Behavioural: By lowering down the auditory sensitivity of person noise result in poor attention and concentration. It has been observed that children's performance is poor in 'comprehension' tasks whose schools are situated in busy areas of a city and suffer from noise pollution. Sudden noise distracts a person and can create nervousness in him.

Personological: If the injurious effects of noise tend to persist for long, they cause stable maladaptive reactions in the individual disturbing his total personality make up. The lowered performance level among children may develop a feeling of inadequacy, lack of confidence, poor perception of one's ownself, which may jeopardize their optimal personological development as a growing child. Once a child develops the feeling of ineptness, worthlessness and inadequacy in the formative period, its disastrous effects are not going to be removed easily without leaving their masks behind.

Keeping in mind these serious and disastrous effects of noise pollution on human life, the measures for prevention and protection of noise pollution

were framed through subordinate legislation. Such Subordinate legislation framed under the Environment Protection Act and Motor Vehicles Act may be discussed with a view to ascertain potentiality of the Rules in controlling noise pollution.

5.4.(i). ENVIRONMENT (PROTECTION) RULES, 1986

The Environmental (Protection) Rules 1986 was enacted by the Central Government, in exercise of power conferred by Sections 6 and 25 of the Environment Protection Act, 1986. It was enacted for the purposes of protecting and improving the quality of environment and preventing and abating environmental pollution.

Schedule III annexed to the Rules specifies the ambient air quality standards in respect of noise for different zones during day and night. According to the notes given in the schedule, day time is reckoned in between 6 am to 9 pm and night time in between 9 pm to 6 am. As per the schedule the standards during day will be 75 dB for industrial areas, 65 for commercial areas, 55 for residential areas and 50 for silence zones. During the night the standards would be 70, 55, 45 and 40 respectively. Note 3 of the Schedule defines silence zone as areas upto 100 meters around hospital, educational institutions and courts. Within the area of silence zone use of vehicular horns, loudspeakers and bursting of crackers shall be banned and the ban is to be imposed by the authority competent in this regard. The Rules also provides a list of general noise standards¹⁴³ which are as follows---

A. Noise limits for Automobiles (Free field Distance 75 meter) in dB at manufacturing stage

Automobiles

Unit

(a) Motorcycle, Scooters and Three wheelers

80 dB

(b) Passenger Cars

82 dB

¹⁴³ Part E, Sch. VI.

(c) Passenger or Commercial Vehicles upto 4MT

85 dB

(d) Passenger or Commercial Vehicles above 4MT and upto 12MT

89 dB

(e) Passenger or Commercial Vehicles exceeding 12MT

91 dB

B. Noise Limits for Domestic appliances and construction equipments at manufacturing stage to be achieved by 31-12-1993.

Appliances or equipments

Unit.

(a) Window, Air conditioner of 1 ton to 1.5 ton

68 dB

(b) Air coolers

60 dB

(c) Refrigerators

46 dB

(d) Diesel generators for domestic purpose

85-90 dB

(e) Compactors (rollers) Front loaders, Concert mixers, Cranes (Movable),
Vibrators and Saws.

75 dB

The Environment (Protection) (Second Amendment) Rules, 1999¹⁴⁴ specifies the noise standards for firecrackers and makes the Department of Explosives responsible to ensure implementation of these standards. It prohibits the manufacture, sale or use of fire-crackers generating noise level exceeding 125 dB(AI)¹⁴⁵ or 145 dB(C)_{pk}¹⁴⁶ at 4 meter distance from the

¹⁴⁴ G.S.R. NO. 682 (E) dt. 5-10-1999.

¹⁴⁵ dB(AI) means A-weighted impulse sound pressure level in decibel.

¹⁴⁶ DB(C)_{pk} means D-weighted peak sound pressure level in decibel.

point of bursting¹⁴⁷. For individual firecracker constituting the series (joined fire crackers) the above-mentioned limit be reduces by 5 by 10 (N) dB (where N= number of crackers joined together)¹⁴⁸. According to the Rules the broad requirements for measurement of noise from the firecrackers shall be: (i) The measurement shall be made on a hard concrete surface of minimum 5 meter diameter or equivalent. (ii) the measurement shall be made in free field conditions i.e. there should not be any reflecting surface upto 15 meter from the point of bursting. (iii) The measurement shall be made with an approved sound level meter¹⁴⁹.

5.4.(ii).CENTRAL MOTOR VEHICLES RULES 1989

The Central Motor Vehicles Rules 1989 bans the use of multitone horn giving a succession of different notes or similar devices giving unduly harsh, shrill, loud and alarming sounds in motor vehicles¹⁵⁰. However vehicles used as ambulance or for fire fighting or salvage purposes or vehicles used by police officers or officers of Motor Vehicles Department may be fitted with such sound signals if the registering authority in whose jurisdiction such vehicles are kept approves it¹⁵¹. Further the Motor Vehicles Rules 1989 provides that every motor vehicle shall be so constructed and maintained as not to cause undue noise without any motion. But no specification has been prescribed by the rule making authority about the motor vehicles noise.

5.4.(iii). NOISE POLLUTION (REGULATION & CONTROL) RULES, 2000

The Central Government through a Gazette notification dated 14th February 2000 notified the Noise Pollution (Regulation & Control) Rules,

¹⁴⁷ Serial No. 89 (A) (i), Sch I.

¹⁴⁸ Serial No. 89 (A) (ii), Sch I.

¹⁴⁹ Serial No. 89 (B), Sch I.

¹⁵⁰ Sub Rule (8) of Rule 119.

¹⁵¹ Sub Rule (3) of Rule 119.

2000¹⁵² for the regulation and control of noise pollution. The Rules¹⁵³ came into force with the publication in the Gazette. The Rules was made in exercise of powers conferred by clause (ii) of Sub section (2) of Section 3, sub section (1) and clause (b) of subsection (2) Section 6 and Section 25 of the Environment (Protection) Act 1986. The Noise Pollution (Regulation and Control) Rules, 2000 have been framed for regulating the increasing ambient noise levels in public places from various sources like industrial activity, construction activity, generator sets, loudspeakers, musical systems, vehicular horns and other mechanical devices. It was considered necessary to regulate and control noise producing and generating sources as they have deleterious effects on human health and psychological well being.

The ambient air quality standards in respect of noise for different areas / zones has been specified in the schedule annexed to the Rules. The ambient noise level (in decibels) fixed under the Rules in 75 dB for industrial area, 65 for commercial area, 55 for residential area and 50 for silence zone (during day) and 70, 55, 45 and 40 dB respectively during the night. The day time has been considered to be between 6 am and 10 pm, the rest of the hours are considered as night time. It is stipulated that the noise level in any area or zone shall not exceed the ambient noise standards¹⁵⁴. The notification authorizes the State Government to categorize the areas into four zones, namely, industrial, commercial, residential and silence zone¹⁵⁵. The silence zone has been defined to be areas upto 100 meters around hospitals, educational institutions and courts¹⁵⁶. The State Government has been entrusted with the responsibility to take measures for abatement of noise including noise emanating from vehicular movements and to ensure that the existing noise level do not exceed the prescribed air quality standards¹⁵⁷. The Rules stipulate that all development authorities,

¹⁵² Notification No. S.O. 123 (E) dt 14 Feb 2000.

¹⁵³ The Noise Pollution (Regulation and Control) Rules 2000.

¹⁵⁴ Sub Rule (1) of Rule 4.

¹⁵⁵ Sub Rule (2) of Rule 3.

¹⁵⁶ Sub Rule (3) of Rule 5.

¹⁵⁷ Sub Rule (3) of Rule 3.

local bodies and other concerned authorities, while carrying out development activity or discharging functions relating to town and country planning, shall take into consideration all aspect of noise pollution as a parameter of quality of life. These authorities are further required to avoid noise menace and to achieve the objective of maintaining the ambient quality of standards in respect of noise¹⁵⁸.

The authority¹⁵⁹, as defined in the Rules, is required to enforce noise pollution control measures and ensure compliance of the air quality standard in respect of noise¹⁶⁰. The Rules prohibit the use of loudspeaker or public address system except without written permission of the authority¹⁶¹. It bans the use of loudspeaker or public address system during night time i.e. from 10 pm to 6 am. However, in closed premises like auditorium, conference rooms, community halls and banquet halls, such use at late hours, only for the purpose of communication within, is allowed¹⁶². Playing music, beating drum, tomtom or blowing horn or exhibiting any musical or any other performances of a nature to attract crowds in silence zone is an offence under the Rules. The person committing such offence shall be liable for penalty under the provisions of the Environment Protection Act¹⁶³. Participation of public in controlling noise pollution is provided under the Rules. In the event of noise level exceeding the ambient noise standards by 10 dB (A) or more, a person may make a complaint to the authority¹⁶⁴. The authority on receipt of the complaint made by a person is empowered to take action as per the provisions of the Rules or any other law in force¹⁶⁵.

¹⁵⁸ Sub Rule (4) of Rule 3.

¹⁵⁹ Rule 2(c) authority means any authority or officer authorized by the Central Government, or as the case may be, the State Government in accordance with the laws in force and includes a District Magistrate, Police Commissioner and any officer designated for the maintenance of the ambient air quality standards in respect of noise under any law for the time being in force.

¹⁶⁰ Sub Rule (2) of Rule 4.

¹⁶¹ Sub Rule (1) of Rule 5.

¹⁶² Sub Rule (2) of Rule 5.

¹⁶³ Rule 6.

¹⁶⁴ Sub Rule (1) of Rule 7.

¹⁶⁵ Sub Rule (2) of Rule 7.

The authority under the Rules has power to prohibit, prevent continuance of music, sound or noise by a written order for the purpose of preventing annoyance, disturbance, discomfort or injury to the public or to any person who dwell or occupy property in the vicinity. The authority while making an order may issue such direction as he may deem fit. Before passing such order the authority must be satisfied, from the report of an officer-in charge of a police or other information received, that issuance of such order is necessary¹⁶⁶. The person aggrieved by such order may make an application to the authority for reconsideration. The authority *suomoto* or on such application may rescind, modify or alter such order. It is mandatory that the authority while disposing of the application must afford to the applicant an opportunity of appearing before it and show causes against the order. When the authority rejects such application it must record reasons for such rejection¹⁶⁷.

5.4.(iv). CONCLUSION

Scientific studies conducted all over the world have proved that excessive noise is a health hazard having far reaching effect which in some cases may lead to cardiac arrest and even injury to human fetus. Its worst victims are highly industrialized, mechanized and urbanized sectors. In view of rapid industrial development especially in already industrialized urban areas, the mushroom growth of unplanned urban colonies and uncontrolled noisysome traffic in developing and over populated India, the problem assumes alarming dimensions and dangerous proportions. The religio-superstitious structure of the Indian society adds to the intensity of environmental pollution by noise. In view of the alarming proportions of noise and its impact, what is called for, is 'noise control' through legislation, judiciary, determination of administrators, public and technology.

¹⁶⁶ Sub Rule (1) of Rule 8.

¹⁶⁷ Sub Rule (2) of Rule 8.

Quietness and freedom from noise are inseparable to the full and free enjoyment of a dwelling house. No person has an absolute right to create noise upon his own land because any right, which the law gives, is qualified by the condition that it must not be exercised to nuisance of his neighbours. The Indian Penal Code under Section 268 covers the problem of noise when noise amounts to public nuisance. The true position is that a person may be made liable of nuisance caused by noise under this Section if the noise is nuisance to the community as a whole.

Criminal Procedure Code to some extent cover the problem of noise by empowering the Magistrate under Section 133 to try a case of unlawful obstruction of nuisance whereby the Magistrate may by an order remove public nuisance caused by noise.

The Workmen's Compensation Act makes the employer liable to pay compensation to the workers on their absolute deafness and hearing impairment resulting from the working condition.

Though the noise of aircraft cause severe health hazard to the people residing near airport, Aircraft Act does not directly provide for control of noise of aircraft. However as noise directly affects the public health by way of causing various health hazards, the problem of noise of aircrafts can be checked through the power of making rules under Section 8 (A) and (B) of the Aircraft Act. For the effective control of noise arising from aircraft, some new technology as invented in Marlin 300 aircraft should be adopted in the engines of the aircraft.

Though in the areas of water and air pollution, there are two independent Acts, i.e. the Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981, there is no independent Act to deal with the problem of noise pollution. It was after the enactment of Environment Protection Act 1986 that the attention was attracted to noise pollution. But instead of bringing any self contained enactment for prevention of noise pollution, the Air (Prevention and Control of Pollution) Amendment Act 1987 was brought to include 'noise' in the

definition of the term 'air pollutant'. Consequently the duty of Air Pollution Control Boards prescribed under the Act extends to pollution caused by noise as well.

Although Central Pollution Control Board while approving noise standards for different sources of the noise, has prescribed the name of implementing agencies in order to ensure the better implementation of noise standards regulating noise pollutant including the domestic appliances already working in residential area, the municipal boards or local authorities should especially be authorized as implementing agencies. In case of violation of noise standards by any industrial plant the State Pollution Control Boards should be authorized to cancel its registration.

5.5. Legislative Measures for Protection of Ozone Layer

The Environmental backlash at humanity for its own advancement and Nature's destruction has landed humanity in a fix for the depletion of Ozone in the atmosphere. International efforts of the Vienna Convention and then the Montreal Protocol were to stop the Ozone depletion and that the world community should be a beneficiary of the concern called for. Although scientists suspect that it might have been damaged to the effect that its original forum will be difficult to retain.

No one dreamed human activity would threaten the ozone layer until the early to mid-1970s, when scientists discovered two potential problems: ultra-fast planes and spray cans. Through decades of use, CFCs proved themselves to be ideal compounds for many purposes. They are nontoxic, noncorrosive, nonflammable and unreactive with most other substances. Because of their special properties, they make excellent coolants for refrigerators and air conditioners. CFCs also trap heat well, so manufacturers put them into foam products such as cups and insulation for houses. Most scientists had not worried about how CFCs would affect the atmosphere. But two chemists, F. Sherwood Rowland and Mario Molina, began considering these wonder compounds, and they uncovered something disturbing, that they were depleting the ozone layer.

5.5.(i) THE CONCEPT

Ozone is a life-giving layer, which has a filtering action, as it prevents the harmful UV-B radiation from reaching the earth's surface. Without ozone, life on earth would not have evolved. This ozone led to the formation of different life forms on earth. Ozone is highly reactive pale-blue gas with a penetrating odour. It is an allotrope of oxygen, made up of three atoms of oxygen. It is formed when the molecule of the stable form of oxygen (O_2) is split by ultraviolet radiation or electrical discharge. At ground level, ozone can cause asthma attacks, stunted growth in plants, and corrosion of certain materials. It is produced by the action of sunlight on air pollutants, including car exhaust fumes, and is a major air pollutant in hot summers. In the upper atmosphere ozone has a beneficial effect, shielding life on Earth from ultraviolet rays, a cause of skin cancer. Ozone is a powerful oxidizing agent and is used industrially in bleaching and air conditioning.

The first effect of depletion was felt when ozone loss was recorded in the Antarctica and later on came to be known as the "ozone hole"¹⁶⁸. Depletion of ozone is also related to other adverse environmental effects such as climate change, green house effect etc. The revelation came in the initial stages to the scientific community when two scientists at the University of California at Berkley, Professor F. Sherwood Rowland and Mario Molina stated that it was the CFCs, which were depleting the ozone layer.¹⁶⁹

The Ozone was caused in part by chlorofluorocarbons (CFCs), but many reactions destroy ozone in the stratosphere: nitric oxide, chlorine, and bromine atoms are implicated. In 1989 ozone depletion was 50% over the Antarctic compared with 3% over the Arctic. In April 1991 satellite data from NASA revealed that the ozone layer had depleted by 4-8% in the N

¹⁶⁸ <http://www.oar.noaa.gov/> (Discovered by the British in the Antarctica)

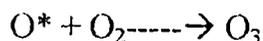
¹⁶⁹ M.J.Molina and F.S.Rowland, Stratospheric sink for chlorofluoromethanes chlorine atom-catalysed destruction of ozone, NATURE, Vol.249, 28 June 1974 at 810.

hemisphere and by 6-10% in the S hemisphere between 1978 and 1990. It is believed that the ozone layer is depleting at a rate of about 5% every 10 years over N Europe, with depletion extending south to the Mediterranean and southern USA. However ozone depletion over the polar regions is the most dramatic manifestation of a general global effect. As a pollutant at ground level, ozone is so dangerous that the US Environment Protection Agency recommends people should not be exposed for more than one hour a day to ozone levels of 120 parts per billion (ppb). It is known that even at levels of 60 ppb ozone causes respiratory problems, and may cause the yields of some crops to fall. In the USA the annual economic loss due to ozone has been estimated at \$5.4 billion.

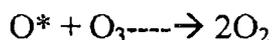
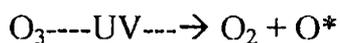
5.5.(ii). OZONE LAYER DEPLETION

Ozone depleter is a chemical that destroys the ozone in the stratosphere. Most ozone depleters are chemically stable compounds containing chlorine or bromine, which remain unchanged for long enough to drift up to the upper atmosphere. Once in the upper atmosphere, they are broken up by the intense solar radiation and form a cocktail of more active substances, which then react with ozone, causing its depletion. The best known is chlorofluorocarbons (CFCs) but many other ozone depleters are known, including halons, used in some fire extinguishers; methyl chloroform and carbon tetrachloride, both solvents; some CFC substitutes; and the pesticide methyl bromide. Most research into alternatives to ozone depleters seeks chemical alternatives, which will break up before they get into the upper atmosphere, but still have a useful working life as a refrigerant or propellant.

Reactions responsible for the destroy of ozone:



Reactions responsible for the formation of ozone:



Under this natural equilibrium, the rate of destroy equals the rate of formation. Therefore, the concentration of ozone is fairly constant in the stratosphere. Chlorofluorocarbons (CFCs) are the killer of ozone. They generate chlorine radicals that attack and destroy ozone molecules. CFCs are important compounds in industry and domestic uses. This renders the depletion of ozone layer severe. Now a region of low ozone concentration (commonly called 'hole') is situated over Antarctica and the Arctic region.

Ozone is constantly created and destroyed. The above reaction is responsible for the vital screening effect of ozone. The presence of chlorofluorocarbons (CFCs) generates reactive chlorine radicals that constantly destroy ozone.

Ozone can also be formed in the lower part of the atmosphere. It is formed by reactions between nitrogen oxides and hydrocarbons under sunlight, or by electric sparks which occur in car engines or electrical appliances like photocopiers. In nature, the gas can be generated during lightning. Ozone layer in the stratosphere filters out 99 per cent of dangerous ultraviolet radiation from the sun. The thinning of the ozone layer may lead to an increase of skin cancer and eye cataract. The presence of 'ozone hole' over Antarctica and the Southern hemisphere has introduced incidence of increasing victims of skin cancer. The yield of crops may also decrease. The expanse in medical cure and economical loss in food is uncountable.¹⁷⁰

The discovery of depletion of the ozone layer caused concern in the advanced community of the world that human minds have been shaping the environment towards its destruction. This voice found shape in the Vienna Convention adopted in 1985 followed by the Montreal Protocol of 1987, which laid the foundation for action to be taken to protect the ozone layer.

¹⁷⁰ S.S.Purohit and B.Kulkarni, Air Environment and Pollution, pg.89.

In 1981 the UNEP Governing Council set up a working group to prepare a global framework convention for the protection of the ozone layer. Its aim was to secure a general treaty to tackle ozone depletion. First, a general treaty resolved in principle to tackle a problem; then the parties got down to the more difficult task of agreeing protocols that established specific controls.

The first, relatively easy, step proved remarkably difficult. The Convention for the Protection of the Ozone Layer, finally agreed upon in Vienna in 1985, appears unexceptionable. Nations agreed to take appropriate measures to protect human health and the environment against adverse effects resulting or likely to result from human activities, which modify or are likely to modify the ozone layer, but the measures were unspecified.

There was no mention of any substances that might harm the ozone, and CFCs only appeared towards the end of the annex to the treaty, where they were mentioned as chemicals that should be monitored. The main thrust of the convention was to encourage research, cooperation among countries and exchange of information. Even so it took four years to prepare and agree. Twenty nations signed it in Vienna, but most did not rush to ratify it. The Convention provided for future protocols and specified procedures for amendment and dispute settlement.¹⁷¹

With all its complications and seemingly endless disputes, the Vienna Convention set an important precedent. For the first time nations agreed in principle to tackle a global environmental problem before its effects were felt, or even scientifically proven. The Vienna Convention committed its Parties to take measures to protect human health and environment against human activities that protect the ozone layer. It was a framework agreement, which do not contain binding controls. This Convention then gave way to the Montreal Protocol on substances that deplete the ozone layer in 1987. It came as a legal basis for the worldwide effort to safeguard the ozone layer through controls on production,

¹⁷¹ *Supra* note 138

consumption and the use of those substances, which deplete the ozone layer.

Although the Montreal Protocol does phase out the worst ozone depleting substances (CFC's, HCFC's, halons, methyl bromide), unfortunately it allows ozone depleting chemicals to be replaced with two greenhouse gases, hydrofluorocarbons (HFC's) and perfluorocarbons (PFCs). Both of these chemicals are among the six global warming gases to be controlled under Kyoto Protocol.¹⁷²

The Montreal and Kyoto protocols contain mechanisms for reviewing the scientific knowledge, revising control target dates, and banning more chemicals. The Montreal Protocol's Scientific Assessments (1989, 1991, 1994 and 1998) have led, for instance, to the adoption of three amendments to create phase-out schedules for methyl bromide, HCFC's, and other ozone depleting chemicals. The much newer Kyoto Protocol, although not amended to date, has a similar mechanism requiring a scientific review of its provisions.¹⁷³

Ozone Depleting Substances (ODS) or "controlled substances" include chloro-fluoro-carbons and halons and a broad range of industrial chemicals used as refrigerators, foaming agents, aerosol propellants, fire retardants. The depletion of the ozone layer caused by these substances allowed more ultraviolet-B radiation to reach the ground, which could raise the incidence of skin cancer, cataracts, and other adverse effects on the human immune system. Even small increases of ultraviolet-B radiation could disturb ecological food chains, affecting agriculture, fisheries and biological diversity.

5.5.(iii).INDIA AS A SIGNATORY

Realizing the danger of ozone depletion, Governments adopted the Vienna Convention on Protection of the Ozone Layer in 1985, the Montreal Protocol on substances that deplete the Ozone Layer (Montreal

¹⁷² Jessica Vallette Revere, Ozone depletion and Global Warming, Friends of the Earth, Vol.5, No. 8, April 2000.

¹⁷³ Ibid

Protocol) in 1987, and amendments to the Protocol in London in 1990 and Copenhagen in 1992. By June 1995, more than 150 countries had ratified the Montreal Protocol. The Protocol lays down the time schedule for freeze and reduction of ODS. A Multilateral Fund was established under the Protocol to assist developing countries in meeting the control measures of the Protocol.

Initially India did not become a signatory to the Montreal Protocol. It was only after the First World countries agreed to assist the Third world countries agreed to assist the Third world countries with finances as well as transfer of technology that India became a signatory. It acceded to the Protocol in September 1992, when it prepared a detailed country programme for phasing out ODS without undue burden on the Industry and consumers.

Phase out Schedules¹⁷⁴

| Name of Activity | Phase out Date |
|---|----------------|
| Manufacture of aerosol products excluding Metered Dose Inhalers (MDI) | Jan. 1, 2003 |
| Manufacture of foam products (including domestic refrigerators) | Jan. 1, 2003 |
| Manufacture of Mobile Air-conditioners (MAC'S) | Jan. 1, 2003 |
| Manufacture of other refrigeration & Air-conditioning products | Jan. 1, 2003 |
| Manufacture of products based on other ODS | Jan. 1, 2010 |
| Manufacture of Metered Dose Inhalers (MDI) | Jan. 1, 2010 |
| Use of methyl bromide except Quarantine and Preshipment | Jan. 1, 2015 |

¹⁷⁴ Sanjay Upadhyay & Videh Upadhyay, Water Laws, Air Laws and the Environment, Butterworths, Pg. 120.

UNDP was assisting 41 developing countries in implementing their national programmes under the Montreal Protocol through national country programme formulation, technical training and demonstration projects, institutional strengthening and national capacity building and technology transfer investment projects.¹⁷⁵

During 1991-95, India received \$ 3.3 million (around Rs. 11.2 crores) under the UNDP work programme portfolio approved by the Executive Committee of the Montreal Protocol Multilateral Fund. Of this \$ 1,755,000 (about Rs. 6 crores) was towards technology transfer an investment project for the phase-out of CFCs by five leading private sector enterprises in the foam sector.¹⁷⁶ In addition to Sunpra and Camphor & Allied Products, the other enterprises include Eagle Flasks, Maharashtra (manufactures of thermoware), Bakelite Hylam, Andhra Pradesh (phenolic foam and foam products), and U-foam, Andhra Pradesh (polyurethane foams).¹⁷⁷

The support to these five enterprises symbolizes the coming together of the private sector, the government and the international community in the effort to find solutions to urgent environmental problems and reaffirms the commitment of UNDP to working with the private sector as a partner in development. The enterprises had been specially selected to function as "beacons" in the Indian CFC phase out programme, allowing Indian manufacturers to apply newly developed CFC-free systems and gain the necessary experience for subsequent general phase out.

The original India Country Program for the phase-out of ODS was prepared with UNDP assistance and considered by the EC in November 1993 as a first step in the development of a comprehensive phase-out strategy. Against this background, the Government of India (GOI) had been working on

¹⁷⁵ <http://undp.org/seecl/esp/Montreal/index.htm>

¹⁷⁶ Ibid

¹⁷⁷ Ibid

individual affected sectors with assistance from the UNDP and the Bank in order to prepare a revised Country Program (CP). The sector work and related policy analysis have taken on more importance with the tightening of eligibility requirements, one of which is that the EC is looking increasingly for an integrated approach, including policy action, as part of the approval process. In addition to engaging consultants to prepare the strategy papers, the Government of India has so far made a number of significant decisions in terms of a regulatory framework needed to achieve commitment to ODS phase-out. However, it might be the right time for the Government of India to move to the next phase of formulating an action plan to enable it to meet its phase-out commitment by the year 2010. To meet this challenge and take concrete steps, the Government of India will need full cooperation from its industries, including its chemical producers. Only with a full commitment from all concerned bodies to join in collaborative efforts will ODS phase-out be achieved in a cost-effective and timely manner.

5.5. (iv). Technology Transfer

World Environment Day on 5 June 1996 marked another milestone for India in its efforts to phase out harmful Ozone Depleting Substances (ODS) that were still being used in the manufacturing sector of the country. With the inauguration of its new plant in Pune on 5 June, Sunpra Energy & Recovery Engineering Pvt. Ltd. Of Pune, Maharashtra, a leading private sector manufacturer of rigid polyurethane sandwich panels for the cold storage industry in India and abroad, will have successfully switched its production technology from the use of environment-endangering chloro-fluorocarbons (CFCs) to a combination of water and HCFC-22 technology. As a result of the completion of this project, with technical assistance from the United Nations Development Programme (UNDP), 20 tons of CFCs was to be eliminated from the atmosphere and the ground laid for the replication of the technology and elimination of ODS in the manufacture of rigid polyurethane foams. This was the second success

story under UNDP-assisted ODS phase-out projects in India (Camphor & Allied Products Ltd. of Gujrat had earlier successfully completed the phase-out of 120 tons of CFCs in the manufacture of extruded polyethylene foam sheets in December 1995).¹⁷⁸

5.5.(v). Policy Instruments those were introduced before Rules 2000

In accordance with the National Strategy for Ozone Depleting System phase out the Ministry of Environment and Forests, Government of India, had framed comprehensive draft rules, covering various aspects of production, sale, consumption, export and import of ozone depleting system.

Ozone Depleting Substances (Regulation and Control) Rules to be issued under the Environment (Protection) Act of 1986, requiring all producers and consumers of CFCs to register with government and file reports on ODS consumption; production, and exports; establishing deadlines for phase out of ODS consumption, and banning creation of new and expansion of existing ODS production capacities

CFC production quotas were to be issued by the Government to the four CFC producers each calendar year, totaling no more than the national production ceiling. The enterprises were to report their production levels regularly to the Ministry of Environment and Forests (MoEF), which will administer the CFC production quota scheme. The production Quotas may be traded among the enterprises, upon authorization by MoEF.

India ratified the Montreal Protocol (MP) on Substances that Deplete the Ozone Layer in June 1992 and is eligible for grant assistance from the Multilateral Fund for the Implementation of the Montreal Protocol (MFMP), which was established to provide support to eligible developing countries to meet their Montreal Protocol obligations.¹⁷⁹ In 1994, India's production amounted to 35,740 tons, in terms of ozone depleting potential (ODP) and consumption was 16,066 ODP tons. Most consumption of ozone

¹⁷⁸ Ibid

¹⁷⁹ <http://www.worldbank.org/>

depleting substances (ODS) is in foams, refrigeration, aerosols and solvents. India is self sufficient in production of CFC-11, CFC-12 and halon-1211.¹⁸⁰ The Ministry of Environment & Forests (MoEF) is the agency responsible for implementation of the Montreal Protocol. Within the Ministry of Environment and Forests, the Ozone Cell is coordinating Montreal Protocol activities.¹⁸¹

5.5. (vi).Ozone Depleting Substances (Regulation and Control) Rules 2000

These Rules were enacted in pursuance of the Montreal Protocol on substances that deplete the ozone layer. The main objective of this protocol was the protection of the ozone layer through the gradual phase out of the substances that deplete the ozone layer. For this, regulations covering various aspects relating to ozone depleting substances (ODS), such as production, consumption, purchase, sale, import, export and use have been provided in the Rules.

These Rules prohibit the use of CFCs in manufacturing various products beyond 1 January 2003 except in metered dose inhaler and for other medical purposes (see table below). The Rules also provide for compulsory registration of ODS producers, manufacturers of ODS based products, importers, exporters stockist and sellers and the same provision is applicable to manufacturers, importers and exporters of compressors. Enterprises which have received financial assistance from multilateral funds for switchover to non-ODS technology have to register the date of completion of their project and to declare that the equipment used for ODS technology has been destroyed. Creation of new capacity or expansion of capacity of manufacturing facilities of ODS and ODS-based equipment has been prohibited. Purchasers of ODS for manufacturing products containing ODS are required to declare the purpose for which ODS is purchased. Trade

¹⁸⁰ Ibid

¹⁸¹ Project Brief, Montreal Protocol ozone Investment Portfolio, India 1998

in ODS with non-parties has been banned. Authority has been specified to issue license for all import and exports of ODS and products containing ODS.¹⁸²

A list of ODS has been provided for in Schedule I of the Rules. All producers/ consumers and users (including importer/ exporters and stockist) of the specified ODS have to necessarily register with the specified authority by the dates mentioned in Schedule V. Different phase out dates for different ODS, both for the producers and for the consumers have been specified in Schedule IV to the Rules.¹⁸³

5.5.(vii). Reporting, Assessment, Review and Monitoring System in India

A detailed monitoring mechanism has been established by the Ozone Cell to ensure that the investments, which are being made directly by the Multilateral Fund through implementing agencies, are being fruitfully utilized by the enterprises. The monitoring mechanism has the following components:

A Monitoring and Evaluation Sub Committee is set up under the chairmanship of Special Secretary, which includes representatives from four implementing agencies, other line ministries and industry associations. The Sub-Committee is an advisory body to the Empowered Steering Committee on the Montreal Protocol, which is fully responsible for the implementation of the Protocol in India. The Committee developed detailed formats for evaluation and monitoring of the investment and non-investment projects.

The Director (Ozone Cell) has been convening monthly evaluation meetings with representative of UNDP, IDBI and UNIDO with a view to note the progress of implementation and to sort out short-term problems, which might occur during the implementation process.

¹⁸² 'The Montreal Protocol: India's Success Story', Ozone Cell, Ministry of Environment and Forests, Government of India, 2000.

¹⁸³ Supra Note 142

A provision of the site inspections of the projects, which are under implementation and also where the project completion reports have been submitted, has also been made. Normally, during the course of the year, implementing agencies send three to four missions to visit sites where project implementation work is going on and where projects have been completed and hand over protocols are to be signed. During such missions, ODS equipment is also destroyed. Now, an officer of Ministry of Environments & Forest is accompanying the mission of the implementing agency in these visits with a view to evaluate the work being done by the enterprises.

It is also proposed to send a term of officers from Ministry of Environments & Forest to the project sites/ after the project has been completed to ensure that the enterprise has not reverted back to using ODS and that the new technology has been put in place. These visits are being planned on a quarterly basis.¹⁸⁴

5.5.(viii). CONCLUSION

The regime of implementation of the Montreal Protocol has begun. It is an outstanding and remarkable achievement as most controversies and conflicts have been resolved and the world has started climbing the steps for achieving compliance. The stakes for removing the threat to life are very high and humanity cannot afford to be complacent. Under the International achievement of bringing a framework and illumination of the threat at a time when measures have been taken with all precautions, and most countries have committed to a schedule for reducing and finally measures to promote effective implementation to control ozone depleting substances has begun as most controversies have been resolved. Under the International achievement most countries have committed to a schedule for reducing and finally phasing out production and consumption of ozone depleting substances. The

¹⁸⁴ Ministry of Environment and Forests, Ozone Cell, India's Success story, Government of India Act, 2002

Governments and Industries are meeting the challenge through a combination of means, including public awareness campaigns, setting conducive policies and incentives, implementing investment projects and non-investment projects such as training, information exchange and experience sharing. The investment of the international community and elimination of production and consumption of ODS (ozone depleting substances) would contribute significantly to the recovery of the ozone layer.

Initially the developing countries refused to sign the Montreal Protocol to become parties to it. They held suspicions and only agreed to become Parties after being given the assurance that it was indeed detrimental to mankind to continue using these ODS and if not stopped would lead to further ill-effects. Without accepting the duty to transfer technology and to funding there was the realistic danger that the developing countries were unable to comply with the control measures. These countries demanded this as a matter of right and not charity as the developed countries were primarily responsible for this problem. There was then a danger that most fast developing countries would have become a large producer and consumer by year 2000. In that case it would have been senseless of the developed countries to enforce control measures. With the help of financial mechanism and transfer of technology the issue between developed and developing countries was resolved and they became parties to it.

The Rio Declaration had brought with it certain basic environmental principles thus laying the foundation for framing of environmental laws. Through this process the concept of Sustainable Development was introduced. It incorporated several principles like common concern, common but differentiated responsibilities, the precautionary principle and the polluter pays principle. These principles thus formed the basis for bringing out the Vienna Convention and the Montreal Protocol. Evidence is now known and it is found that ozone has depleted in most parts of North America, Australia, New Zealand and more famously over the Antarctica

with the discovery of “ozone hole”. With the discovery of more ODS and new discoveries along with changes in situations amendments have been made under the Montreal Protocol namely in 1990, 1992, 1995, 1997 and 1999.¹⁸⁵

It is on the basis of polluter pays principle that the developed countries were asked to fund the financial mechanism, which would help the Article 5 countries* to destroy ozone depleting technologies and switch over to environment friendly ones. With the adherence to the measures called for, the ozone layer is expected to recover by the next 50 years.

The environmental concern of the use of CFCs and other ODS has not been included in the list of crimes under the Statute of the International Criminal Court (ICC) adopted at Rome on 17 July, 1998.* It has not been defined as an international crime under any of the international conventions nor it has been so stated as such in the light of Montreal Protocol. Montreal Protocol simply works on that use of ODS should be eliminated and those who do not adhere to it would have to face isolation in relation to trade aspect of the world. It is silent on the provisions that relate to environmental crimes thus it is regarded under a civil wrong.

In India there is legislation as far as certain crimes are concerned. Section 133 of the Criminal Procedure Code empowers the Magistrate to take action against environment criminal acts. The Environment Protection Act also operates with criminal procedures, although the nature of offences is not defined. The Montreal Protocol has not been considered a crime in India, except where smuggling activities take place, which come under other Laws as crimes. This is so because under Montreal Protocol non-compliance is not taken as an environmental crime. It is only regarded as a civil wrong. The punishment for the polluter is of civil or criminal nature. It depends on the facts and kinds of acts, which are defined and interpreted as such, and accordingly the person is penalized for it.

¹⁸⁵ United Nations Environmental Programme, Handbook for the International Treaties for the Protection of the ozone layer, Fifth edition, 2000 at 197.

Under the Montreal Protocol, non-compliance calls for stricter measures along with tortuous liability. It does not include the activities of these ODS as criminal as they are identified as such. These measures include stopping of trade with that party and withdrawal of all other facilities, which a party to the Montreal Protocol may enjoy. As a result the non-complying party stands in isolation to the Nations of the world. States are often unable to combat environmental crimes because they lack either the resources or ability to detect the crimes and ferret out the criminals. One potential way to capture environmental criminals and to improve State compliance with international environmental obligations is to utilize new monitoring technology like remote sensing and globally positioned satellite systems.

Under the Indian scenario, initially the world was surrounded by such global politics that the rich and developed countries refused to acknowledge their liability in environmental degradation and the developing countries harboured suspicions that multilateral environmental deliberations are disguised attempts to keep them economically at a disadvantage. In the wake of resolutions adopted at the Conference on Human environment at Stockholm in 1972, different countries at different stages enacted laws to protect the deteriorating conditions of environment. The confirming of fears of threats as ozone depleting and in turn wiping out life on earth led to international meets as the Vienna convention. The resolution then to phase-out all ozone depleting substances was undertaken by the developed countries. The developing countries were then named as Article 5 countries and slowly and steadily all these countries joined hands in helping resolve the issue. India being a developing country ratified the Montreal Protocol (MP) on Substances that Deplete the Ozone Layer in June 1992.¹⁸⁶ In India the depletion of ozone because of pollution was not there under the Environment Protection Act 1986. This has now been included by the insertion of the Rules 2000 framed specially to encounter this problem. India is eligible for grant assistance from the Multilateral Fund for the

¹⁸⁶ Supra note 152

Implementation of the Montreal Protocol (MFMP). In 1994, India's production amounted to 25,740 tons, in terms of ozone-depleting potential (ODP) and consumption was 16,066 ODP tons. Most consumption of ozone depleting substances (ODS) is in foams, refrigeration, aerosols and solvents.¹⁸⁷ India is self sufficient in production of CFC-11, CFC-12 and halon-1211.¹⁸⁸ The Ministry of Environment & Forests (MoEF) is the agency responsible for implementation of the Montreal Protocol. Within the MoEF, the Ozone Cell is coordinating Montreal Protocol activities. The MoEF has established a Steering Committee to implement the provisions. This Committee review's various policy's implementation options along with project approvals and project monitoring. A Project Management Unit is also operational in the ozone cell for monitoring CFC production, phase-out and implementing other support activities to aid CFC production "phase-out."¹⁸⁹

After assessing the entire scenario, that is the assessments relating to ODS, ODP, the sectoral phase-out and taking up the Regulatory, fiscal and awareness campaigns, India framed the Ozone Depleting Substances (Regulation and Control) Rules, 2000. The Ozone Depleting Substances Rules 2000 are framed keeping in mind that there should be development in synthesis with the principle that environment should be protected too.

The Rules start the phase-out from 2003-2004.¹⁹⁰ They prohibit the use of CFC's in manufacturing products beyond 1-1-2003 except in MDIs (metered dose inhalers) and for other medicinal purposes. The use of Halons is prohibited after 1-1-2001, except for servicing and essential use. Other ODS such as carbon tetrachloride and methyl chloroform and CFC for MDI can be used upto 1-1-2010.¹⁹¹ The use of methyl bromide has been allowed upto 1-1-2015.¹⁹² Since HCFCs are used as interim substitute to replace

¹⁸⁷ Ibid

¹⁸⁸ Ibid

¹⁸⁹ Ibid

¹⁹⁰ Ibid

¹⁹¹ Ibid

¹⁹² Ibid

CFC, these can be used upto 1-1-2040.¹⁹³

The adverse effects are, the use of ODS has increased despite the Montreal Protocol and its various control measures. The other negative factors operating are more in wider use than the control measures. The strict adherence to the measures are not there as there is lack of a central agency to have a coordination of activities of the developed and the developing countries. Illegal trade between countries has increased, as those, which are asked to stop the use is illegally selling them in the less developed countries. There is a need to frame at least those activities as crimes, which are related to smuggling and other trans-border crimes. As in India one-week training programs are not sufficient to combat problems posed due to illegal activities. Certain activities should come under the criminal law so that these illegal activities are restricted under the law.

There is a need to ensure that the goals of the Montreal Protocol do not undermine the Kyoto Protocol. To do so, there should be something to support the legal linkage between the two protocols and should ban the adoption of HCFCs, HFCs, and other global warming chemicals as alternatives to ozone depleting chemicals, unless there is no other technologically feasible alternative.

India has undertaken numerous response measures that are contributing to the objectives of the United Nations Framework Convention on Climate Change (UNFCCC). India's development plans balance economic development and environmental concerns. The planning process is guided by the principles of sustainable development.

Despite all measures taken for stopping hazardous wastes and uses of ODS, wars aggravate the environmental issues more. U.N. as a peace keeper appears to have failed in its mission of stopping the uses of such environment degrading activities which brings the efforts to square one.

Although there are international efforts to phase out ODS, the effective implementation has been delayed due to different situation in different

¹⁹³ Ibid

countries. More stern measures are required to be taken for the implementation and Regulating Ozone Depleting Substances. There should be an effort taken to start implementing the provisions of Montreal Protocol without waiting for phase out dates. India needs to draft Laws instead of Rules to implement measures to check ozone depletion. The Ozone Cell set up in India should have more sub cells and proper coordination to monitor the work of these units. Awareness programmes and measures should be brought about in India due to lack of awareness in masses of ozone depletion problem. Testing Laboratories on substances should be established where scientifically products, which are checked for CFC free technologies.

Effective measures should be taken to outline these activities as crimes under the criminal law. This issue is tried under the common law remedies, but when smuggling of CFC takes place, then the Act gets transformed into a crime. This should not just be effected in the international law, but also under the municipal laws. There is a need for the nuclear wastes as well as the Hazardous wastes to be linked together so that there is an overall solving of the deep-rooted problem. Countries like India who are in the beginning of implementation have not linked the two, which is an important provision given under the Protocol.

New Jurisprudential techniques have to be devised to deal adequately with this problem of ozone depletion so that the switch over to non-CFC products is more effective. In order to make the legal provision more effective the Rules granting prospective right should be construed restrictively and should be interpreted strictly to cover subtle-invasions of CFC uses.

The decisions of the Ozone Cell should be taken as precedents and should be followed in the remaining cases in view of stricter provisions of law. The sentencing policy should place emphasis on abatement of ozone depletion, rather than mere imposition of fines or penalties or let them off for want of awareness. Public Interest Litigation for protection of ozone should be practiced more often as regards depletion.

More ODS officers and inspectors are required to seek effective checks on adverse activities. Mere weekly training to officers is not enough to encounter this threat. Every country should take precautions on dumping of adverse technologies in third world by legal or illegal means. Incentives should be given to promote indigenous environmental friendly technologies free from CFC uses. The third world countries should ensure that transfer of finances reach to the required industries. After the transfer of technology, it should be the industries do not again switch back to old uses of equipment or other technology, which would again create the problem of ozone depletion.