

## Legislative Enactments and Authorities for Monitoring & Management of Water Pollution in India

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### Abstract

“Right to live is a fundamental right under Article 21 of the Constitution and it includes the right of enjoyment of pollution free water & air for full enjoyment of life. If anything endangers or impairs that quality of life in derogation of laws, a citizen has 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.”<sup>1</sup>— Supreme Court of India (1991)

### Prologue:

Water is an essential constituent of all animal and vegetable matter and forms about 75% of the matter of earth's crust. It is also an essential ingredient of animal and plant life. Water is substance of the life cycle. It must be preserved and protected from all types of pollutants. The human body and other living organism require it, but in its pure form, free from any type of contamination. But day by day man is disturbing water bodies such as – rivers, wells, streams, seas. And because of that, the availability of pure water is now rapidly declining and being burning question not only national but international level too. Thus, now the world is heading toward water crises. According to UN some 80 nations and 40% of the world's population are already in the throes of a “water stress”, if massive improvement does not happen in providing water, managing it and saving it, we are going to have monumental crises.

In year 1972 The Stockholm Declaration was the first holistic approach to deal with the problems of environment like- natural resources (including water resource), human settlement, human health, ecosystem, environment & development etc. It also broadly speaks about ‘need of the international law relating to liability & compensation for the victim of the pollution and other environmental damages’. On 5<sup>th</sup> Dec. 1972 The United Nations Environment Programme (UNEP) was also created by The United Nations General Assembly to promote environmental law and address major environmental issues organized various conferences and established certain commissions specifically for the protection of water from pollution. In year 1982 World Charter For Nature was adopted by UN General Assembly, in 1982 UN Convention on the Law of the Sea, The World Commission on Environment & Development was established by the UN General Assembly in 1983 as “Our Common Future” and Earth Summit-The Rio Declaration on Environment & Development, 1992 are such programmes was organized for the sake of protection of environment and prevention from various kinds of pollution of natural resources (including water resource).

In short with the beginning of 70<sup>th</sup> decade of 19<sup>th</sup> century the pollution and exploitation of various natural resources (including water resource) has been an emerging problem and for controlling these exploitation

of natural resources, to manage them, to develop them various laws, rules & regulations, seminars & programmes have being held in India. The outcome of these activities produced The Water (Prevention & Control of Pollution) Act, 1974 and various other rules & regulations and even in The Indian Constitution itself has also provide the provision in this regard.

**What Is Water Pollution:** The term “pollution” may be defined in number of ways. In simple sense we can say that, it is an undesirable state of the natural environment being contaminated with harmful substances which may be consequence of human or natural activities.

In legal sense, the term “environment”, “environment pollutant”, and environment pollution” has been defined in The Environment (Protection) Act, 1986. Section 2 (a) provide the definition of term “environment” includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creature, plants micro organism and property. According to section 2 (b) “environment pollutant” means any solid, liquid or gaseous substance present in such concentration as may be, or tend to be injurious to environment. Section 2 (c) provides that, “environment pollution” means the presence in the environment of any environmental pollutant.

Water pollution may be define as the presence of some inorganic, organic, biological, radiological or physical foreign substances in the water that tend to degrade its quality and which makes it unsuitable for the propose for which it would be suitable in the natural state.<sup>2</sup> In the other words, the polluted water undergoes physical, chemical or biological changes and thus it becomes unsuitable for use in its natural state. The polluted water is not only nuisance or injury to public health but also it poses danger to the life and health of animals, plants and aquatic organisms.

The Water (Prevention & Control of Pollution) Act, 1974 defined the term water pollution as, “pollution” means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health

or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.<sup>3</sup> Thus, the definition provided under this Act is very comprehensive and covers all changes in physical chemical or biological properties of water. The definition also covers rise in temperature of water and discharge of radio-active substances in the water.<sup>4</sup>

Kinds of Water Pollution: The water pollution can be classified mainly in to four categories viz.<sup>5</sup>-

A. Physical Pollution of Water: The physical pollution of water brings about changes in the water with regard to its colour, odour, density, test, turbidity and thermal etc.

B. Chemical Pollution of Water: The chemical pollution of water is due to the presence of inorganic and organic chemicals such as acids, alkalies, toxic inorganic compounds, dissolved inorganic compounds, suspended inorganic compound, suspended organic compounds and dissolved organic compounds. The industrial wastes of certain industries such as DDT factory, high explosive factory, battery factory etc. contain acids.

The most common form of pollution of water due to organic chemicals is because of the presence of proteins, fats, carbohydrates etc. these organic chemicals get access to water bodies either through sewage or through industrial wastes. Important industries which contribute such chemicals are dyes, drugs, insecticides, pesticides, detergents and chemical industries.

C. Biological Pollution of Water: This pollution is due to the presence of pathogenic bacteria, certain fungi, pathogenic protozoa, viruses, parasitic worms etc. The important source of this pollution is domestic sewage and industrial wastes.

D. Physiological Pollution of Water: Physiological pollution is caused by several chemical agents such as chlorine, sulphur dioxide, hydrogen sulphide, ketones, phenols, amines, mercaptans and hydroxy benzene. Following are certain other categories of water pollution which are made on the basis of sources and storage of water:<sup>6</sup>

A. Ground Water Pollution: Ground water is a gift of nature, is about 210 billion m<sup>3</sup> including recharge through infiltration, seepage and evapotranspiration. Out of this nearly one third is extracted for irrigation, industrial and domestic use, while most of the water is regenerated in to rivers.

Ground water is threatened with pollution from the sources like- domestic waste, industrial waste, agricultural wastes, run off from urban areas and soluble effluents.

B. Surface Water Pollution: Surface water being called as polluted when it comes with the direct contact with atmosphere, seasonal, streams, rivulets and surface drains. The main sources of this kind of water pollution are: atmospheric gases, surface run-off, industrial and

municipal wastes, agricultural wastes, radio-active materials etc.

C. Lake Water Pollution: Following are the main sources for the lake water pollution: discharge of organic wastes from hills and toxic effluents from urban areas, wastes sludge from factories, sewage treatment plants, toxic and hazardous effluents from industries etc. These effluents consist of excessive concentration of nitrates and phosphates causing well known lake eutrophication disrupting the whole aquatic environment.

D. River Water Pollution: Today pollution of water from rivers have been most exploited due to increase in population, industrialization, urbanization, increase in living standards and broad spheres of human activities. The good quality of is inadequate even for the normal living and is getting polluted due to industrial discharge including those of paper, textiles, rayon, fertilizers, pesticides, detergents, anti-bionics, oil refineries and photo films.

Major Indian rivers such as- Ganga, Yamuna, Tapi, Narmada, Chambal, Damodar, Krishna, Kaveri, Brahmaputra, Maahi and other rivers are severely polluted.

E. Sea Water Pollution: Oceans are vital to our food security, commerce and food transportation but now a day's due to human activities are troubling the health of ocean. Many fish species have been harvested to a point that their populations are threatened. The coastal mangroves forests of Asia have been destroyed by shrimp farming. The habitats of marine mammals and fish have been degraded severely, with pollution responsible for the mass deaths of fish, mammals and corals.

Organo-chlorine pollutants, pesticides, polychlorinated biphenyls and range of other toxic pollutants accumulate within fishes later moving up the food chain to cause reproductive disorder.

#### **Water Monitoring and Management:**

In urban areas water is mostly used for industrial and municipal purpose and in order to ensure that, the right quality & quantity of water for these purposes it is extremely important to monitor and manage water supply.

Water management is a term used to mean the arrangement for properly organizing the hydrosphere in order to prevent major water crises in years to come or in future. With rapid urbanization and industrialization it is very important to make proper use of the whole quantity on the surface of the earth, otherwise many problems may arise in the form of water scarcity in future. The most important aspect of water management are: hydrosphere, hydrological cycle, exchange of water and transportation of water. The aqueous envelope of the earth is known as hydrosphere and it includes rivers, lakes, oceans, streams, wells, soil, moisture and water vapour's in the atmosphere etc. Evaporation of water takes place from the surface of

ocean and as a result clouds fall on earth becoming rain and meet together to ocean again by way of rivers and water streams are known as hydrological cycle. And the renewal of water present in various parts of the hydrosphere is generally known as exchange of water.

The water management should be studied in its proper prospective. For example, if sewage, either treated or untreated or partially treated is dumped in to water bodies such as rivers and lakes, they are likely to be converted more or less into sewers. But if proper techniques are used for handling the vast volumes of water present on the earth, the chance of water crises in future are extremely remote.

Water Quality Management: Following measures are adopted to maintain water quality. 1) Short – term measures: These are includes: pollution control at industrial sources, protection and preservation of drinking water resources, proper pattern of sewage collection and disposal system in water sources, sewage regulations, pollution control at urban sources, environmental planning guides for industrial estates and costal management.

2) Long- term measures: Programmes are to be planned and activated on the basis of river basin to control water pollution. It includes: preparation of water use map to classify the zone river water, preparation of water quality map considering water quality monitoring, evaluation of pollution potential in the river basin.

These are certain measures to monitor and manage the quality and quantity of the water for use of present as well as future generations.

**Legislative Enactments and Authorities:**

To monitoring and management the water resources following Central and State enactments and Governmental authorities are functioning in India:

**The Water (Prevention & Control of Pollution) Act, 1974: Constitution of Central Board:**

Chapter II Section 3 of the Act provides: (1) The Central Government shall, with effect from such date (being a date not later than six months of the commencement of this Act in the States of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and in the Union territories) as it may, by notification in the Official Gazette, appoint, constitute a Central Board to be called the <sup>7</sup>[Central Pollution Control Board] to exercise the powers conferred on and perform the functions assigned to that Board under this Act. (2) The Central Board shall consist of the following members, namely:-

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of <sup>8</sup>[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) <sup>9</sup>[such number of officials, not exceeding five] to be nominated by the Central Government to represent that Government;

(c) such number of persons, not exceeding five to be nominated by the Central Government, from amongst the members of the State Boards, of whom no exceeding two shall be from those referred to in clause (c) of sub-section (2) of section 4;

(d) <sup>10</sup>[such number of non-officials, not exceeding three,] to be nominated by the Central Government, to represent the interests of agriculture, fishery or industry or trade or any other interest which, in the opinion of the Central Government, ought to be represented;

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

<sup>11</sup>[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(3) The Central Board shall be a body corporate with the name aforesaid having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and to contract, and may, by the aforesaid name, sue or be sued.

**Power And Functions Of The Board:**

Section 16 of the Act provide the provisions relating to the power and functions of the Central Board viz.(1) Subject to the provisions of this Act, the main function of the Central Board shall be to promote cleanliness of streams and wells in different areas of the States.(2) In particular and without prejudice to the generality of the foregoing function, the Central Board may perform all or any of the following functions, namely:—

(a) advise the Central Government on any matter concerning the prevention and control of water pollution;

(b) co-ordinate the activities of the State Boards and resolve disputes among them;

(c) provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;

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

(e) organise through mass media a comprehensive programme regarding the prevention and control of water pollution;

<sup>12</sup>[(ee) perform such of the functions of any State Board as may be specified in an order made under sub-section (2) of section 18];

(f) collect, compile and publish technical and statistical data relating to water pollution and the measures devised for its effective prevention and control and prepare manuals, codes or guides relating to treatment and disposal of sewage and trade effluents and disseminate information connected therewith;

(g) lay down, modify or annul, in consultation with the State Government concerned, the standards for a stream or well. Provided that different standards may be laid down for the same stream or well or for different streams or wells, having regard to the quality of water, flow characteristics of the stream or well and the nature of the use of the water in such stream or well or streams or wells.

(h) plan and cause to be executed a nation-wide programme for the prevention, control or abatement of water pollution;

(i) perform such other functions as may be prescribed.

(3) The Board may establish or recognize a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents.

**Constitution of State Boards :**

Chapter II Section 4 of the Act provides: (1) The State Government shall, with effect from such date <sup>13\*\*\*</sup> as it may, by notification in the Official Gazette, appoint, constitute a <sup>14</sup>[State Pollution Control Board], under such name as may be specified in the notification, to exercise the powers conferred on and perform the functions assigned to that Board under this Act.

(2) A State Board shall consist of the following members, namely:-

(a) a <sup>15</sup>[chairman, being a person having special knowledge or practical experience in respect of <sup>16</sup>[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the State Government:

<sup>17</sup>[Provided that the chairman may be either whole-time or part-time as the State Government may think fit;]

(b) <sup>18</sup>[such number of officials, not exceeding five,] to be nominated by the State Government to represent that Government;

(c) <sup>19</sup>[such number of persons, not exceeding five,] to be nominated by the State Government from amongst the members of the local authorities functioning within the State;

(d) <sup>20</sup>[such number of non-officials, not exceeding three] to be nominated by the State Government to represent the interest of agriculture, fishery or industry or trade or any other interest which, in the opinion of the State 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;

<sup>21</sup>[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the State Government.]

(3) Every State Board shall be a body corporate with the name specified by the State Government in the notification under sub-section (1), having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and to contract, and may, by the said name, sue or be sued.

(4) Notwithstanding anything contained in this section, no State Board shall be constituted for a Union territory and in relation to a Union territory; the Central Board shall exercise the powers and perform the functions of a State Board for that Union territory:

Provided that in relation to an Union territory the Central Board may delegate all or any of its powers and functions under this sub-section to such person or body of persons as the Central Government may specify.

**Power and Functions of State Board:**

Section 17 of the Act provides the functions of the State Boards: (1) Subject to the provisions of this Act, the functions of a State Board shall be —

(a) to plan a comprehensive programme for the prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof; (b) to advise the State Government on any matter concerning the prevention, control or abatement of water pollution;

(c) to collect and disseminate information relating to water pollution and the prevention, control or abatement thereof;

(d) to encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;

(e) to collaborate with the Central Board in organising the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of water pollution and to organise mass education programmes relating thereto;

(f) to inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent as required by this Act;

(g) lay down, modify or annul effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an inter-State stream) resulting from the discharge of effluents and to classify waters of the State;

(h) to evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the

peculiar conditions of soils, climate and water resources of different regions and more especially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree of dilution; (i) to evolve methods of utilization of sewage and suitable trade effluents in agriculture;

(j) to evolve efficient methods of disposal of sewage and trade effluents on land, as are necessary on account of the predominant conditions of scant stream flows that do not provide for major part of the year the minimum degree of dilution;

(k) to lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents;

(l) to make, vary or revoke any order – (i) for the prevention, control or abatement of discharge of waste into streams or wells;

(ii) requiring any person concerned to construct new systems for the disposal of sewage and trade effluents or to modify, alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent control or abate water pollution;

(m) to lay down effluent standards to be complied with by persons while causing discharge of sewage or sullage or both and to lay down, modify or annul effluent standards for the sewage and trade effluents;

(n) to advice the State Government with respect to the location of any industry the carrying on of which is likely to pollute a stream or well;

(o) 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.

(2) The Board may establish or recognize a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents.

**Constitution of Joint Boards:**

Chapter III and Section 13 and 14 of the Act provides the provisions relating to the constitution of the joint boards:

Section 13 (1) Notwithstanding anything contained in this Act, an agreement may be entered into- (a) by two or more Governments of contiguous States, or (b) by the Central Government (in respect of one or more Union territories) and one or more Government of State Government contiguous to such Union territory or Union territories, to be in force for such period and to be subject to renewal for such further period if any, as may be specified in the agreement to provide for the constitution of a Joint Board, –

(i) in a case referred to in clause (a), for all the participating States, and

(ii) in a case referred to in clause (b), for the participating Union territory or Union territories and the State or States.

Section 14 (1) A Joint Board constituted in pursuance of an agreement entered into under clause (a) of sub-section (1) of section 13 shall consist of the following members, namely:-

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of<sup>22</sup>[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) two officials from each of the participating States to be nominated by the concerned participating State Government to represent that Government;

(c) one person to be nominated by each of the participating State Governments from amongst the members of the local authorities functioning within the State concerned;

(d) one non-official to be nominated by each of the participating State Governments to represent the interests of agriculture, fishery or industry or trade in the State concerned or any other interest which, in the opinion of the participating State Government, is to be represented;

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

<sup>23</sup>[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(2) A Joint Board constituted in pursuance of an agreement entered into under clause (b) of sub-section (1) of section 13 shall consist of the following members, namely:-

(a) a full-time chairman, being a person having special knowledge or practical experience in respect of<sup>24</sup>[matters relating to environmental protection] or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;

(b) two officials to be nominated by the Central Government from the participating Union territory or each of the participating union territories, as the case may be, and two officials to be nominated, from the participating State or each of the participating States, as the case may be by the concerned participating State Government;

(c) one person to be nominated by the Central Government from amongst the members of the local authorities functioning within the participating Union territory or each of the participating Union territories, as the case may be and one person to be nominated, from amongst the members of the local authorities functioning within the participating State or each of the participating States, as

the case may be, by the concerned participating State Government;

(d) one non-official to be nominated by the Central Government and one person to be nominated by the participating State Government or State Governments to represent the interests of agriculture, fishery or industry or trade in the Union territory or in each of the Union territories or the State or in each of the States, as the case may be, or any other interest which in the opinion of the Central Government or, as the case may be, of the State Government is to be represented.

(e) two persons to be nominated by the Central Government to represent the companies or corporations owned, controlled or managed by the Central Government and situate in the participating Union territory or territories and two persons to be nominated by Central Government to represent the companies or corporations owned, controlled or managed by the participating State Governments;

<sup>25</sup>[(f) a full-time member-secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.]

(3) When a Joint Board is constituted in pursuance of an agreement under clause (b) of sub-section (1) of section 13, the provisions of sub-section (4) of section 4 shall cease to apply in relation to the Union territory for which the Joint Board is constituted.

(4) Subject to the provisions of sub-section (3), the provisions of sub-section (3) of section 4 and sections 5 to 12 (inclusive) shall apply in relation to the Joint Board and its member-secretary as they apply in relation to a State Board and its member-secretary.

(5) Any reference in this Act to the State Board shall, unless the context otherwise requires, be construed as including a Joint Board.

#### **Some Other Important Laws in India:**

In India the Central Government and State Governments have passed various statutes to contain and control the problem of water pollution and ecological imbalances. The following are the most important enactments have been made by the government to monitor and manage the water pollution and to protect the environment viz. Environment (Protection) Act, 1986, North-India Canal and Drainage Act, 1873, Indian Ports Act, 1908, River Boards Act, 1956, The Merchant Shipping Act, 1958, The Water (Prevention & Control of Pollution) Cess Act, 1977 etc.

##### **A. The Environment (Protection) Act, 1986:**

The Central Govt. in exercise of the power conferred by the section 3 (1) and (3) of The Environment (Protection) Act, 1986 constituted an authority known as "Water Quality Assessment Authority" w.e.f. 22.06.2001.

##### **B. Constitution of India:**

Article 14: Equality before Law- The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

Article 21: Protection of life and personal liberty- This right provides to everyone as a right to life and right to clean and healthy environment.

Article 48-A: Protection and improvement of environment and safeguarding of forests and wild life- [The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.]<sup>26</sup>

Article 51 (1)(g): It is the fundamental duty of every citizen of India- to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;

#### **C. Other Enactments & Provisions:**

The first Act concerning control of water pollution in India is The Shore Nuisance (Bombay & Kolaba) Act, 1853. This statute was operative in Bombay and Kolaba only. Another statute dealing with the water pollution is the Oriental Gas Company Act, 1857. This Act provided punishment for pollution of water caused by the company.

After ten years in 1867 the Serais Act imposed a duty on Innkeepers to keep water in serai feet for the consumption by the people and animal using it, to the satisfaction of District Magistrate. The violation of such duty entailed a liability of rupees twenty.

One of the important enactments was the North-India Canal and Drainage Act, 1873. Section 70 (3) of the Act provided that, any interference with or alteration in the flow of water in any river or stream, so as to endanger, damage or render less useful any canal or drainage work would be an offence. This entailed the punishment of imprisonment not exceeding three months or fine not exceeding fifty rupees or both.

The Indian Easement Act, 1882 has recognized the doctrine of riparian rights to unpolluted water. Section 7 of the Act, in Illustrations (f) and (h) mentions that, every owner has right to get unpolluted water without material alteration in quantity and temperature.

Other legislative majors to control the water pollution were the Obstruction in Fairways Act, 1881, the Indian Ports Act, 1908, the Inland Steam Vessels Act, 1917, the Indian Forests Act, 1927, and The Merchant Shipping Act, 1958. These enactments though did not deal directly and exclusively with water pollution but had some provisions dealing with it. The First Act dealing with water pollution and having specific provisions in the Indian Penal Code, 1860. It provides: "Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose for which it is ordinarily used, shall be punished with imprisonment of either description for a term which may extend to three months,

or with fine which may extend to five hundred rupees, or with both.”<sup>27</sup>

The Factories Act 1948: Section 12 provides the duty for occupier of the factory for Disposal of wastes and effluents- effective arrangements shall be made in every factory for the treatment of wastes and effluents due to the manufacturing process carried on therein, so as to render them innocuous and for their disposal.

**(Endnotes)**

<sup>1</sup>Observation of Supreme Court at decision given in case of Subhash Kumar v/s State of Bihar AIR 1991 SC 420.

<sup>2</sup>Jaswal P S and Jaswal Nishtha., Environmental Law, Third Edition., p.p197.

<sup>3</sup>Section 2 (e) of The Water (Prevention & Control of Pollution) Act, 1974.

<sup>4</sup>BEAG v/s State of Maharashtra AIR 1991 Bom. 301.

<sup>5</sup> Sharma B K., Environmental Chemistry, Ninth Edition, p.p 36-39.

<sup>6</sup> Ibid.

<sup>7</sup> Subs. by Act 53 of 1988, s. 3 for certain words.

<sup>8</sup> Subs by Act 44 of 1978, s. 3 for Certain words.

<sup>9</sup> Subs. by s. 3, ibid for “five officials”.

<sup>10</sup> Subs by s. 3, ibid for “three non-officials”.

<sup>11</sup> Subs. by Act 53 of 1988, s. 3, for cl. (f).

<sup>12</sup> Ins. by Act 53 of 1988, s. 8.<sup>13</sup>Certain words omitted by Act 44 of 1978, s. 4

<sup>14</sup> Subs. by Act 53 of 1988, s. 4, for “State Board”.

<sup>15</sup> The word “full-time” omitted by Act 44 of 1978, s. 4.

<sup>16</sup> Subs. by s. 4, ibid., for Certain words.

<sup>17</sup> Ins. by s. 4, ibid.

<sup>18</sup> Subs. by s. 4 ibid., for “five officials”

<sup>19</sup> Subs. by s. 4, ibid., for “five persons”.

<sup>20</sup> Subs. by Act 44 of 1978, s. 4, for “three non-officials”.

<sup>21</sup> Subs. by Act 53 of 1988, s. 4, for cl. (f).

<sup>22</sup> Subs. by Act 44 of 1978, s. 9, for certain words.

<sup>23</sup> Subs. by Act 53 of 1988, s. 7 for cl. (f).

<sup>24</sup> Subs. by Act 44 of 1978, s. 9, for certain words.

<sup>25</sup> Subs. by Act 53 of 1988, s. 7, for cl. (f).

<sup>26</sup> Ins. by the Constitution (Forty-second Amendment) Act, 1976, s. 10 (w.e.f. 3-1-1977)

<sup>27</sup> Section 277 of The Indian Penal Code 1860.