

LETTER TO EDITOR

Disposal of Bio-medical Waste in India*Yuvraj Dilip Patil**Symbiosis International University, Symbiosis Law School, Pune-411014 (Maharashtra) India*

Bio-medical waste is one of more serious and hazardous environmental pollutants and if it is not disposed off with proper management it could produce large number of infectious diseases which would be harmful to livelihood of human beings & other living organism.

Every human being has right to livelihood & it includes the right to clean environment. This right imposes duty on the hospital authorities to comply with rules & regulations relating to disposal of biomedical waste.

Objectives of Article:

1. To study how improper management of disposal of biomedical waste leads to affect right to livelihood?
2. To study legal framework of disposal of biomedical waste in India
3. To study the role of Indian judiciary in disposal of biomedical waste
4. To make suggestions

Introduction:

According to the WHO, the global life expectancy is increasing year after year. However, deaths due to infectious disease are increasing. A study conducted by the WHO in 1996, reveals that more than 50,000 people die every day from infectious diseases. One of the causes for the increase in infectious diseases is improper waste management. Blood, body fluids and body secretions which are constituents of bio-medical waste harbour most of the viruses, bacteria and parasites that cause infection. This passes via a number of human contacts, all of whom are

potential 'recipients' of the infection. Human Immunodeficiency Virus (HIV) and hepatitis viruses spearhead an extensive list of infections and diseases documented to have spread through biomedical waste. Tuberculosis, pneumonia, diarrhoeal diseases, tetanus, whooping cough etc., are other common diseases spread due to improper waste management [1].

Sec 2(5) Bio-medical Waste Rules, 1998 defines "Bio-medical waste" as - any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biological [2].

II] Categories of Biomedical Waste

1. Human Anatomical Waste
2. Animal Waste
3. Microbiology & Biotechnology Waste
4. Waste Sharps
5. Discarded Medicines & Cytotoxic Drugs
6. Solid Waste (with blood)
7. Solid waste
8. Liquid Waste
9. Incineration Ash
10. Chemical Waste

III] Legislative Scenario

Earlier in India, medical waste was considered a part of municipal waste till the problems associated with medical waste were realized. There was no legislation on medical waste or biological waste management in our country till 1995 when the first draft rules were proposed by

the Ministry of Environment and Forest, which recommended on site incinerators for all hospitals with more than fifty beds. At the same time in 1996, the Supreme Court in a case, ordered the inclusion of alternate technologies and their standards in the rules. The second draft rules were notified in 1997 and the final rules were notified on 20.7.1998 being Biomedical Waste (Management and Handling), Rules, 1998. In the meantime, two amendments have been brought into the said rules in March, 2000 known as Biomedical Waste (Management and Handling) (Amendment) Rules, 2000. This amendment only changed schedule VI of the rules concerning Waste Management Facilities for treatment of waste.

1) The Environmental Protection Act 1986 [3]

The Environmental Protection Act 1986 defines 'environment' under Sec. 2(a) as follows:

"Environment" includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

It defines 'hazardous substance' under Sec. 2(e) as follows:

"hazardous substance" means any substance or preparation which, by reason of its chemical or physico-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plants, microorganism, property or the environment.

It also defines 'environmental pollutant' under Sec. 2(b) as under:

"Environmental pollutant" means any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to environment.

The above three definitions cover a wide field and spectrum to which the principles of environmental

jurisprudence are to be applied. Anything that affects the water, air and land and the interrelationship which exists between them and the human beings and other living creatures, plants, micro-organisms and property adversely is an environmental pollutant and has to be checked, prevented and controlled. The scheme and enforcement of law has to be framed with such objective in mind. The legislative intent in framing these expressions liberally is indicative of the fact that the law has to be applied stringently to all such subjects and matters which are likely to be environmental pollutants or hazardous substances which would cause harm to human beings and other living creatures etc [4].

1) Biomedical Wastes (Management and Control) Rules, 1998

It is the duty of the occupier of an institution generating biomedical waste (which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank etc.) to take all steps to ensure that such waste is handled without any adverse effect to human health and environment [3]. In compliance with the standards prescribed by Schedule V of the rules, such wastes are to be disposed of in accordance with Schedule I. Waste had been categorized and treatment and disposal thereof have been specifically expected to be carried out in the manner prescribed. Human anatomical wastes are to be disposed of by incineration or deep burial (below five meters). This is the case with reference to animal waste as well. Microbiology and biotechnology wastes are to be disposed of by local autoclaving or microwaving or by incineration. Waste sharps like needles, syringes, scalpels, blades, glass etc., are to be disinfected and shredded or mutilated. Discarded medicines, solid waste and liquid waste also are to be appropriately treated as prescribed

by the Schedule. A time schedule also has been prescribed, as could be seen from Schedule VI, and in respect of hospitals and nursing homes in towns with a population of 30 lakhs and above, the process was to be completed by 31st of December, 1999. In respect of other institutions, the deadline varies from 31st of December, 1999 to 31st of December, 2002. Thus, the time fixed for compliance of the rules is over.

The rules also prescribe that biomedical waste shall not be mixed with other wastes, and they are to be segregated into containers or bags at the point of generation. Transportation of such untreated waste shall be only in such vehicles as may be authorized by the competent authority and they are not to be kept stored beyond a period of 48 hours. There is also prescription for formation of an authority and the State has to nominate members constituting it, as an implementing organ. Every occupier referred to earlier, who is responsible for generating or collecting biomedical waste in any manner, are to make an application to the authority for grant of such authorization for dealing with them. The rules also refer to formation of advisory committees.

2) Indian Penal Code, 1860 [5]

Section 268. Public nuisance.-A person is guilty of a public nuisance who does any act or is guilty of an illegal omission which causes any common injury, danger or annoyance to the public or to the people in general who dwell or occupy property in the vicinity, or which must necessarily cause injury, obstruction, danger or annoyance to persons who may have occasion to use any public right. A common nuisance is not excused on the ground that it causes some convenience or advantage.

Section 269. Negligent act likely to spread infection of disease dangerous to life.—Whoever

unlawfully or negligently does any act which is, and which he knows or has reason to believe to be, likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, or with both.

Section 270. Malignant act likely to spread infection of disease dangerous to life.-Whoever malignantly does any act which is, and which he knows or has reason to believe to be, likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to two years, or with fine, or with both.

IV] Judicial Scenario

Environment Monitoring Forum and Anr. Vs. Union of India (UOI) and Ors., MANU/KE/0894/2003, It is the duty of the institutions generating biomedical waste to take all steps to ensure that such waste is handled without any adverse effect to human health and environment [6].

Maitree Sansad Vs. State of Orissa and Ors., 2007(Supp. 1)OLR246, Improper practices such as dumping of bio-medical waste in municipal dustbins, open spaces, water bodies etc., leads to the spread of diseases. Emissions from incinerators and open burning also leads to exposure to harmful-gases-which can cause cancer and respiratory diseases. Exposure to radioactive waste can in the waste stream can also cause serious health hazards. An often-ignored area is the increase of in-home healthcare activities. An increase in the number of diabetics who inject themselves with insulin, home nurses taking care of terminally ill patients etc., all generate bio-medical waste which can cause health hazards [7].

P. K. Nayyar & Ors. vs. UOI & Ors., 198(2013) DLT689, The question answered in this case is that, Whether facility being run in collaboration with a private company of biomedical waste management be deemed near or far away from residential localities which are located at a distance of thirty to forty meters? The court held that, it is not in dispute that bio-medical waste is a hazardous waste which can be highly injurious to human life that precisely appeared to be reason for it being included in list of prohibited/negative list of industries. 30 meters or it is 40 meters could not be said to be a safe distance in sense that it was not unlikely to adversely affect health of residents of nearby complex and/or nearby habitats. In fact decision of Government of NCT of Delhi, which was a partner in concerned venture to shift it from present site was also an acknowledgement that being in close proximity of the residential colonies, facility was likely to cause damage to environment and adversely affect health of nearby residents - Further right to live in an environment free from pollution is a facet of fundamental right of life and liberty guaranteed under Article 21 of the Constitution [8].

Subhash Kumar v. State of Bihar, AIR 1991 SC 420, at p.424, This was one of the first few cases wherein the Supreme Court emphasized the importance of protecting and conserving the natural environment. The scope of Article 21 'the right to life' was widened when the court read into it the "right to wholesome environment." The court went even further and said, "The Right to Life includes the Right to enjoyment of pollution-free water and air for a fuller enjoyment of life." [9].

V] Suggestions

1. **Ensure safe collection, segregations and transportation as per the Bio Medical Waste management Rules 1998.**

2. **Maintain register –**

The hospital Authorities shall maintain the register specifying the quantity of disposal of biomedical waste, the mode of transport, when and how is it disposed? The Municipal Corporation or State Pollution Control Board should check the register to ensure that the disposal of biomedical waste does not affect the health and environment.

3. **Patients treated at home-**

If patients are treated in their home by a community nurse or a member of the hospital, any waste produced as a result, If the waste is non-hazardous, and as long as it is appropriately bagged and sealed, it is acceptable for the waste to be disposed of with household waste. This is usually the case with sanitary towels, nappies and incontinence pads which are not considered to be hazardous when they originate from a healthy population. If the waste is classified as hazardous, the healthcare professional can remove that waste and transport it in approved containers (i.e. rigid, leak proof, sealed, secured etc.).

4. **Waste minimization**

Whenever goods are manufactured or purchased for use in health care and similar establishments, consideration should include financial and environmental aspect.

Waste minimization can be achieved through:

- Product substitution
- Product changes
- Procedural Changes to minimize the waste

5. **Provide education & training programme for all personnel who are involved in the waste management**

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