



Juridical Review of Hazardous and Toxic Waste Management

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Abstract

This research aims to determine the juridical review of the management of hazardous and toxic waste (LB3) at Tenriawaru Hospital, Bone Regency. This research is field research conducted at Tenriawaru Hospital, Bone Regency using qualitative data collection and analysis methods. The data sources in this research are primary data, namely data obtained from interviews with informants and secondary data in the form of statutory regulations. The research results show that the management of hazardous and toxic waste at Tenriawaru Bone Regional Hospital is carried out by sorting, storing, transporting and burying. Management of B3 waste at Tenriawaru Bone Hospital is in accordance with the Minister of Environment Regulation Number 18 of 2009 concerning Procedures for Licensing Management of Hazardous and Toxic Waste Article 2 paragraph (1), namely the type of B3 waste management activity that must be accompanied by a permit consists of transportation activities, temporary storage, collection, utilization, processing and stockpiling. Regarding the use of medical waste, it is not mandatory considering that medical waste is very dangerous and can cause disease and is dangerous to health. Management has been carried out in a structured manner, but still needs to be strengthened in terms of control so as not to pollute the environment. To prevent the negative impact of the management of hazardous and toxic waste (LB3), especially medical waste in hospitals.

Introduction

A good and healthy living environment is a human right and a constitutional right in Indonesia. This has been regulated in Article 28H paragraph (1) of the 1945 Constitution which states that "Everyone has the right to live in physical and spiritual prosperity, a place to live, and a good and healthy living environment and the right to obtain health services". Apart from that, the living environment is also a one of the important aspects of human life, so it is very important to be protected and managed well so that it has a positive impact on human health and the survival of other living creatures (Muhammad Sood. 2019).

Even though it is regulated in law, acts of environmental destruction and pollution are currently one of the main problems faced by the whole world, including Indonesia. This is caused by various factors such as increasingly rapid industrial and technological developments. The impact of environmental damage and pollution is very large, both for humans and for the survival of other living creatures.

The problem of environmental destruction and pollution is getting bigger and bigger, initially environmental problems are natural problems, namely events that occur in natural processes, where these natural processes occur without causing significant consequences for the environmental system itself and can recover later naturally. However, now environmental problems can no longer be said to be purely natural problems, because humans provide very significant, variable causal factors for environmental events (N.H.T.Siahaan 2004).

Management of hazardous and toxic waste (LB3) is an important and urgent environmental issue to be discussed. So that hazardous and toxic waste (LB3) is also a special concern because it can have a greater and dangerous impact on the environment and human health (Sari, 2019). Therefore, the Indonesian government has issued various regulations and laws to regulate B3 waste management.

In the increasingly rapid development of industry and technology, waste management has become one of the environmental problems that often occurs. Waste produced by industry can be hazardous and toxic waste (LB3) which can have a negative impact on the environment and has the potential to threaten human health. Therefore, managing B3 waste is a very important thing to do, specifically the management of hazardous and toxic waste (LB3) is mentioned in Article 1 paragraph 23 of Law no. 32 of 2009 concerning Environmental Protection and Management that, "B3 waste management is an activity that includes reduction, storage, collection, transportation, utilization, processing and/or landfill."

However, managing B3 waste is not easy, including medical waste. Hospitals are very important public facilities and function as places for examination, treatment, care and health recovery. Some hospitals also function as places of education, training and research. A good, clean and healthy environment and sanitation is certainly needed so that the various functions of the hospital can continue to run as they should. Poor waste management is a factor inhibiting the implementation of the duties and functions of a hospital. The failure to manage medical and non-medical waste properly and correctly based on statutory regulations is the main reason for the existing problems (UU 44/2009 concerning Hospitals, Ministerial Decree 1204/MenKes/SK/X/2004 concerning Hospital Environmental Health Requirements, PP 85/1999 concerning B3 Waste Management, Law 18/2008 concerning Waste Management, Minister of Environment and Forestry Regulation No. 56 of 2015) (Ronald, Umboh & Joseph, 2018). Based on these problems, it is interesting to study further the problems related to the judicial review of the management of hazardous and toxic waste (LB3) at the Tenriawaru Hospital, Bone Regency.

Methods

This research is field research using qualitative data collection and analysis methods related to the management of hazardous materials and toxic waste. This research was conducted at the Tenriawaru Regional General Hospital (RSUD), Bone Regency. The data sources in this research are primary data, namely data obtained from interviews with informants and secondary data as analysis material consisting of legislation such as Law no. 32 of 2009 concerning Environmental Protection and Management, Government Regulation Number 101 of 2014 concerning Management of Hazardous and Toxic Waste, Regulation of the Minister of Environment of the Republic of Indonesia Number 18 of 2009 concerning Procedures for Licensing Management of Hazardous and Toxic Waste and theories relevant to the problem under study. Data collection was carried out through interviews with informants at Tenriawaru Hospital, Bone Regency. Data analysis was carried out descriptively qualitatively to outline the juridical review of the management of hazardous and toxic waste (LB3), especially medical waste at Tenriawaru Hospital, Bone Regency.

Results and Discussion

Medical Waste Management at Tenriawaru Hospital, Bone Regency

Based on the results of interviews with three informants, namely medical personnel, environmental health personnel and cleaning service personnel at the hospital. The three of

them confirmed that the hospital's activities produce B3 medical waste through management stages as explained below:

Medical Waste Reduction and Sorting Process

The process of reducing B3 medical waste at Tenriawaru Bone Hospital has never been reduced. Even based on the results of interviews with medical personnel, they do not know or understand about reducing B3 medical waste. According to environmental health workers, B3 medical waste is only separated between medical and non-medical waste. The process of reducing and sorting B3 medical waste is the initial process in managing B3 waste in hospitals. The results of the interview regarding the process of sorting and managing B3 waste in hospitals are as follows.

"I don't know or understand about reducing B3 medical waste. We only separate medical and non-medical waste. "In the process of reducing B3 medical waste at Tenriawaru Bone Hospital, no reduction has ever been carried out" (Informant 1, Interview 2023).

Even based on the results of interviews with medical personnel, they do not know or understand about reducing B3 medical waste. According to environmental health workers, B3 medical waste is only separated between medical and non-medical waste.

"Sharps and syringe waste are always collected by yourself after use. When I cleaned the rooms, the syringes had been collected in their own place. "The syringes are separated in the treatment room but after that they will be collected in a temporary trash can to be combined with other rubbish" (Informant 1, Interview 2023).

Based on interviews with medical personnel, sharp objects such as syringes are collected in one place once the medical procedure is completed. The purpose of this collection is only to prevent accidents due to sharp objects. There is nothing related to the B3 waste sorting process. Because according to environmental health workers, this separation is only carried out in the action room and in the next stage it will be combined with other rubbish/waste.

Medical Waste Storage Process

Based on the results of interviews at Tenriawaru Bone Regional Hospital, interviews with environmental health workers said that there was no process for storing B3 medical waste. Because all medical B3 waste is usually transported from the trash can within 24 hours by cleaning service personnel.

"For all solid medical waste, it usually spends 1 x 24 hours in the trash, then is transported to the final disposal site. There is no saving process. "I don't know about storage, what I know is that every morning my job is to clean the room and put away all the rubbish that has been dumped" (Informant 2, Interview 2023).

Medical Waste Transport Process

Based on the results of interviews, the process of transporting B3 medical waste does not provide special facilities to protect it during transportation in accordance with applicable regulations. The only security facilities provided are personal protective equipment (PPE). Transportation only uses carts to transport B3 medical waste to the pool disposal site. Frequency of transport was the same as described in the interviews regarding storage. The frequency of transportation is only once a day in the morning.

"Depending on the volume of waste, usually once a day (every morning). Containers and means of transporting B3 solid waste can be said to be sufficient in the management process because the volume of waste is still small" (Informant 2, Interview 2023).

Medical Waste Burial Process

Based on the results of interviews with cleaning service personnel regarding the disposal of B3 medical waste. The cleaning service worker said that "there is a dumping area in the form of a large pool at the back. The waste pond has been used for a long time and has never been closed. "There is B3 solid waste that is thrown into the landfill or landfill at the back, a kind of big pond but it hasn't been closed for a long time" (Informant 3, Interview 2023).

The results of the interview with Informant 2 as an environmental health worker showed that:

"Infectious medical B3 waste is disposed of in holding ponds. Meanwhile, the liquid waste goes directly to the IPAL. Sharps waste (needles, pipettes, broken glass and scalpels) is buried. Infectious waste (generated from laboratories, isolation rooms and treatment rooms), if the waste is liquid, goes directly to the WWTP, if it is solid, it is disposed of in a prepared storage area. "For pharmaceutical waste (expired medicines) it was planted once, but it has long been gone."

Based on the results of interviews with environmental health workers, it is known that all medical B3 waste in the final process is placed in a holding pond. However, the burial process for sharp objects is carried out separately in different locations. The condition of the waste burial site is not equipped with a safety fence and there are no warning signs. During the burial process activities in the holding pond were never monitored. This is because the hospital does not know clearly about the standard regulations for managing B3 medical waste.

"All categories of B3 solid waste are collected together in the ponds that have been provided, but sharps waste is buried. Waste graves are not equipped with safety fences or warning signs. "The location of the waste cemetery is not routinely monitored" (Informant 3, Interview 2023).

From the results of interviews with the informants above, the waste produced is not only B3 medical waste but also non-medical waste. The types of medical waste produced include syringes, infusion bottles, gauze for body parts, infectious waste, sharp objects as well as pathology waste and expired medicines and others. The management is done by sorting, storing, transporting and burying.

Juridical Review of the Management of Hazardous and Toxic Waste (LB3) at Tenriawaru Bone Regional Hospital

Hazardous and toxic waste (LB3) is waste that contains hazardous and toxic chemicals that can endanger human health and the environment. Hazardous and toxic materials (B3) can come from various sources such as industry, households, agriculture, and so on. B3 has different properties, such as explosive, flammable, reactive, corrosive and/or toxic.

In the Regulation of the Minister of the Environment Number 18 of 2009 concerning Licensing Procedures for the Management of Hazardous and Toxic Waste, Article 1 paragraph 1 states that, "Hazardous and Toxic Waste, hereinafter referred to as B3 waste, is the remainder of a business and/or activity containing materials dangerous and/or toxic which due to its nature and/or concentration and/or amount, either directly or indirectly, can pollute and/or damage the environment, and/or can endanger the environment, health, survival of humans and living creatures other".

According to Sudaryanto (2015) B3 waste can have a serious impact on the environment. B3 can pollute water, soil and air. Water pollution can cause damage to aquatic ecosystems and threaten the survival of living creatures in them. Soil pollution can disrupt the balance of the ecosystem and reduce soil fertility. Air pollution can cause air pollution and impact human and animal health.

Types of Hazardous and Toxic Waste (LB3)

Before discussing further the legal review regarding the processing of hazardous and toxic waste, here are several types of B3 waste that are often encountered:

Electronic Waste

Electronic waste or e-waste is waste produced from electronic goods that are no longer used. Electronic waste contains various dangerous substances such as lead, mercury, cadmium and other chemicals which can pollute the environment and endanger human health.

Medical Waste

According to Dharwati P. Sari (2019: 8; 2018) medical waste is waste produced from medical activities such as hospitals, clinics and laboratories. Medical waste contains various dangerous substances such as blood, syringes, chemicals and expired medicines. Medical waste can endanger human health and the environment if not managed properly.

Chemical Waste

Bambang Sudarmanto (2017:10) defines chemical waste as waste produced from industrial activities such as factories and laboratories. Chemical waste contains various dangerous substances such as acids, alkalis, pesticides and other chemicals which can pollute the environment and endanger human health.

Fuel Waste

Fuel waste is waste generated from transportation activities such as motor vehicles and airplanes. Waste fuel contains various dangerous substances such as carbon monoxide, nitrogen oxide and sulfur dioxide which can pollute the air and endanger human health.

Based on the classification of B3 waste types explained above, the waste in hospitals, including Tenriawaru Bone Regional Hospital, is a type of medical waste. Medical waste contains various dangerous substances such as blood, syringes, chemicals and expired medicines. Medical waste can endanger human health and the environment if not managed properly. For this reason, B3 waste management must be carried out according to procedures and managed well.

Management of Hazardous and Toxic Waste (LB3)

Management of hazardous and toxic waste (LB3) according to the Minister of Environment Regulation Number 18 of 2009 concerning Licensing Procedures for the Management of Hazardous and Toxic Waste states that "B3 waste management is a series of activities that include reduction, storage, collection, transportation, utilization, processing, and landfilling of B3 waste".

Furthermore, the management of hazardous and toxic waste aims to protect humans, the environment and the ecosystem from the negative impacts that can be caused by this waste. B3 waste management must be carried out carefully and in accordance with applicable regulations. As regulated in the Regulation of the Minister of the Environment Number 18 of 2009 concerning Procedures for Licensing for the Management of Hazardous and Toxic Waste Article 2 paragraph (1) confirms that: "The types of B3 waste management activities that must

be accompanied by a permit consist of (a) transportation activities. , (b) temporary storage, (c) collection, (d) utilization, (e) processing and (f) stockpiling”. The explanation is as follows:

Reducing/reducing B3 waste

B3 waste reduction is an effort made by producers to reduce the amount and nature of hazardous and toxic B3 waste produced from an operation. This can be achieved through increasing storage of in-process (household) raw materials, material replacement, process changes, and other efforts to reduce B3 waste.

Storage of B3 waste

B3 waste storage is the activity of storing B3 waste for temporary storage. This is done by producers, collectors, users, processors and landfills of B3 waste. B3 waste must be stored in a safe place and separate from non-B3 waste, and a storage area that meets the requirements must be used.

Collection of B3 waste

B3 waste collection is the process of collecting B3 waste from B3 waste producers to store it for a short time before handing it over to the B3 waste user, processor or landfill. Collection of B3 waste must be carried out separately from non-B3 waste. B3 waste must be collected in appropriate containers and clearly labeled regarding the type of waste and the dangers contained therein.

Transportation of B3 waste

Transportation of B3 waste is when B3 waste is sent by producers, collectors, users or processors to the required transporter with B3 waste documents. Hazardous and toxic waste must be transported safely to a waste management facility. Transport of waste must comply with established regulations and safety standards, including the use of appropriate vehicles equipped with appropriate protection.

Utilization of B3 waste

Utilization of B3 waste includes recovery, reuse and recycling which aims to convert B3 waste into a product that can be used and must be safe for the environment and human health.

B3 waste processing

B3 waste processing is the process of changing the nature and composition of B3 waste with the aim of eliminating and/or reducing its dangerous and/or toxic properties. B3 waste processing can be carried out physically, chemically, biologically, or in other ways in accordance with technological advances.

Landfilling of B3 waste

Landfilling is the process of storing B3 waste in landfill facilities so that it does not harm the environment and human health.

Meanwhile in Law no. 32 of 2009 concerning Environmental Protection and Management Article 59 paragraph (4) states that, "B3 waste management must obtain permission from the Minister, governor or regent/mayor in accordance with their authority."

Before analyzing the contents of the formulation of environmental offenses in environmental and sectoral legislation, in this section it is necessary to discuss what is meant by environmental offenses. Takdir Rahmadi (2015:225) stated that environmental offenses are orders and prohibitions of law on legal subjects which, if violated, are threatened with the imposition of

criminal sanctions, including imprisonment and fines, with the aim of protecting the environment as a whole and its elements. environment.

According to Muhammad Erwin (2015: 166), environmental offenses contain two types of offenses, namely material offenses and formal offenses. As understood, a material offense is an act prohibited by law which has resulted in the consequences of that act. Meanwhile, formal offenses are actions that are prohibited by law without requiring the consequences of the action.

Meanwhile, Ruslan Renggong (2018:161) believes that an environmental crime can be said to be a formal crime if the environmental crime has been realized if the perpetrator carries out B3 waste management without permission from the authorized official. As in Article 59 paragraph (4) which states that B3 Waste Management must obtain a Business License or approval from the Central Government or Regional Government.

From the explanation above regarding the qualifications for the criminal act of managing B3 waste without having a business permit, it can be concluded that this criminal act, based on its source as regulated in Article 109 letter a, is qualified as a special criminal act, namely a criminal act that is outside the codification of the Criminal Code, apart from that, based on the way it is formulated is qualified as a material criminal act.

B3 waste management carried out at the Tenriawaru Bone Regional Hospital has been carried out in accordance with the Minister of Environment Regulation Number 18 of 2009 concerning Procedures for Licensing for the Management of Hazardous and Toxic Waste Article 2 paragraph (1), namely the types of B3 waste management activities that must be accompanied by permits consist of on transportation, temporary storage, collection, utilization, processing and stockpiling activities. Regarding the use of medical waste, it is not mandatory considering that medical waste is very dangerous and can cause disease and is dangerous to health.

Law Enforcement Against the Management of Hazardous and Toxic Waste (LB3) Without a Permit

Law enforcement based on the Environmental Protection and Management Law (UUPPLH) regarding the management of B3 waste without a permit is in the form of criminal, civil and administrative sanctions.

The criminal provisions for managing B3 waste without a permit are regulated in Law no. 32 of 2009 concerning Environmental Protection and Management:

Article 102

Every person who manages B3 waste without a permit as intended in Article 59 paragraph (4), shall be punished with imprisonment for a minimum of 1 (one) year and a maximum of 3 (three) years and a fine of at least IDR 1,000,000,000.00 (one billion rupiah) and a maximum of IDR 3,000,000,000.00 (three billion rupiah).

In implementing civil sanctions, environmental dispute resolution is regulated in Law no. 32 of 2009 concerning Environmental Protection and Management:

Article 84

(1) Environmental dispute resolution can be achieved through court or outside court.

(3) A lawsuit through the court can only be pursued if the chosen effort to resolve the dispute outside the court is declared unsuccessful by one or the parties to the dispute.

Settlement of Environmental Disputes Outside of Court

Article 85

(1) Settlement of environmental disputes outside the court is carried out to reach an agreement regarding; (a) the form and amount of compensation; (b) recovery actions resulting from pollution and/or destruction; (c) certain actions to ensure that pollution and/or damage will not recur; and/or (d) actions to prevent negative impacts on the environment. (2) Out-of-court dispute resolution does not apply to environmental crimes as regulated in this Law. (3) In resolving environmental disputes outside of court, the services of mediators and/or arbitrators can be used to help resolve environmental disputes.

Meanwhile, the application of administrative sanctions is regulated in Law no. 32 of 2009 concerning Environmental Protection and Management:

Article 76

(1) The Minister, governor, or regent/mayor applies administrative sanctions to the person responsible for the business and/or activity if during supervision a violation of the environmental permit is found. (2) Administrative sanctions consist of: (a) written warning; (b) government coercion; (c) freezing of environmental permits; or (d) revocation of environmental permits.

The regulations that have been explained become the juridical basis for violations committed in the management of B3 waste. This shows that the regulations made aim to prevent the negative impacts arising from hazardous and toxic waste. These regulations apply to all types of waste, including medical waste from hospitals.

Conclusion

Management of hazardous and toxic waste at Tenriawaru Bone Hospital is carried out by sorting, storing, transporting and burying. Management has been carried out in a structured manner, but still needs to be strengthened in terms of control so as not to pollute the environment. Based on a judicial review, the management of B3 waste carried out at the Tenriawaru Bone Hospital is in accordance with the Regulation of the Minister of Environment Number 18 of 2009 concerning Licensing Procedures for the Management of Hazardous and Toxic Waste Article 2 paragraph (1), namely the types of B3 waste management activities that must be completed. with a permit consisting of transportation, temporary storage, collection, utilization, processing and stockpiling activities. Regarding the use of medical waste, it is not mandatory considering that medical waste is very dangerous and can cause disease and is dangerous to health. The recommendation is to prevent the negative impact of managing hazardous and toxic waste (LB3), especially medical waste in hospitals, it is hoped that there will be coordination and integration between related agencies, especially carrying out socialization/legal counseling activities regarding environmental laws in B3 waste management activities. . Apart from that, it is hoped that there will be law enforcement efforts to monitor the management of hazardous and toxic waste (LB3) so that violations do not occur again that can damage and pollute the environment.

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