

The Effectiveness of Supervision on Management of Hazardous and Toxic Waste at RSUD Labuang Baji in Makassar City

Herlina Sakawati¹, Amihara², Sulmiah³

¹²³ Public Administration Program Study, Faculty of Social Science Universitas Negeri Makassar
Email: herlinamappakanro@gmail.com, sulmiah@unm.ac.id^{3*}

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ABSTRACT

This study aims to determine the effectiveness of Supervision the management of hazardous and toxic waste / *bahan berbahaya dan beracun* (B3) at the RSUD (*Rumah Sakit Umum Daerah*) Labuang baji in Makassar City, which can be identified through indicators of measuring tools (standards), assessment and repair. This type of research is qualitative research with data collection techniques, namely interviews, observations and documentation. The data validity was checked by triangulation and member check. Data analysis techniques use data condensation, data presentation and conclusion drawing. The results of this study indicate that the supervision carried out by the Makassar City Environmental Agency on B3 waste management at Labuang Baji Hospital is running effectively. This can be seen from the determination of B3 waste management standards that do not cross the limit of B3 waste produced by Labuang Baji Hospital. In addition, the implementation of assessments in the form of direct visits conducted by the Makassar City Environment Office to Labuang Baji Hospital every year and the improvement actions carried out by the Makassar City Environment Office in the form of a direct reprimand to labuang baji hospital.

Keywords: Supervision; B3; Brand Loyalty; Hospitality.

INTRODUCTION

As the world's population grows, environmental problems become something that cannot be ignored. Environmental pollution and destruction has not only become a national problem, but has become a global problem (Manisalidis et al., 2020; Thompson & Darwish, 2019). In connection with that, it is necessary to supervise and coordinate policies and implementation in a planned, directed and sustainable manner regarding the implementation of authority in the

region in the environmental field. Broadly speaking, the rules mandating protection until the process of environmental maintenance can be seen in Article 33 of the 1945 Constitution and Law No. 32 of 2009 where the rule becomes the basis or reference of the central and local governments to create a healthy environment.

Makassar as the 5th largest city in Indonesia becomes one of the centers of sustainable development that aims to improve the welfare of the community both in terms of economy, education and health. However, often development that is carried out continuously regardless of the surrounding environment will have an impact on the quality and quantity of the environment.

The principle of sustainable development and technological development, becomes one of the triggers for the development of problems such as environmental problems, caused by industrial and non-industrial activities in this modern era. Such activity causes an increase in hazardous and toxic materials (B3) derived from unused waste or side of industrial or non-industrial activities in the form of waste or hazardous final production waste that can pollute the environment and interfere with the environment and health.

Related to the management of hazardous and toxic waste (B3), authority, roles and responsibilities have been regulated in article 59 of Law No. 32 of 2009 on environmental protection and management, specifically in article 1 paragraph (1) explains that every activity that produces B3 waste must conduct management of the waste. In paragraph (2) explains that B3 waste that has been expired still follow the basic provisions of waste management B3. Then, in paragraph (3) explains that any activity that is not able to manage B3 waste by itself, its management can be handed over to other parties. In paragraph (4) explains that the management of waste B3 must get permission from the local government. While in paragraph (5) it is explained that the government is obliged to list the requirements to the perpetrators of waste management B3 to obtain a permit.

Makassar City Environment Office is one of the agencies that play a role in overseeing the management of hazardous and toxic waste (B3), as well as environmental law enforcement in order to help the mayor implement rules related to good and correct waste management B3.

Hospitals as one of the health facilities, also take over in paying attention to a healthy environment. But on the other hand, the hospital is also known as one of the donors of B3 waste because its decay comes from non-medical and medical activities that are dangerous and toxic in large quantities. Activities in hospitals will produce a number of byproducts in the form of solid waste, liquids, and gases that support pathogenic germs and chemical substances and medical devices that are generally dangerous and toxic.

Most of the management of medical B3 waste from hospitals, health centers and laboratories is still far below environmental health standards, because it is generally simply dumped into temporary dumping (TPS) with an open dumping system or open trash can. In addition, the location of the hospital is generally in the middle of the city, making it difficult for hospitals to conduct waste management B3 medical using sophisticated tools. So in this case the supervision of the Environment Agency in the management of B3 waste is needed so that the environment can avoid the buildup of medical B3 waste that is very dangerous.

South Sulawesi province basically produces 15 tons of medical B3 waste per day. While the medical B3 waste produced specifically Makassar city there are 3 tons per day. This is in accordance with what was said by the Head of Waste Management UPT DPLH South Sulawesi in an article released by SINDOnews in September 2019.

Makassar City Government's concern for the handling of B3 Waste is very large. This can be seen from the establishment of a Field of Waste, Waste B3 and Capacity Building in the Makassar City Environment Office based on the rules of Trustees No. 93 of 2016 in Article 4 Paragraph (3) part (c) which states that: "formulating and controlling the implementation of

programs and activities of the Secretariat and the Field of Structuring and Structuring PPLH, The Field of Pollution Control and Environmental Damage, The Field of Waste, B3 Waste and Capacity Building and Green Open Space Management"

From the description above we can describe about how the supervision should be carried out by the Makassar City Environment Office in creating a healthy environment referred to in B3 Waste Management in accordance with applicable rules. Special Regulation on B3 Waste itself, stipulated in Government Regulation No. 101 of 2014 concerning Waste Management of Hazardous and Toxic Materials.

Based on previous research conducted by Venni Rindya Kusumadewi, 2011 with the title of research implementation of supervision of the Karanganyar District Environmental Agency on Waste Management of Coal Burning Products for Industry using qualitative research methods that aim to review and answer problems regarding the implementation of supervision of the Environment Agency Karanganyar. The results showed that the supervision carried out is the implementation of licensing procedures for businesses with the equipped Steering Team, Review Team and Permit Issuance Research Team.

Another research was conducted by Anggi Ayu Kartika, 2018 with the title of research on the Role of the Environment Agency in Monitoring the Management of Hazardous and Toxic Waste (B3) in Kupaten Singingi District (Case Study of Singingi Hilir Subdistrict) using qualitative research methods that aim to find out the role of the Environment Agency in the management of B3 Waste in Singingi Regency. The results of the study showed that the role of the Environment Agency has been running but has not found maximum results.

METHOD

The research approach used in this research is a qualitative approach (Creswell & Creswell, 2017). Because, in a qualitative approach, researchers can get a clear picture and get complete and more valid data regarding the supervision carried out by the Makassar City Environmental Service on the management of hazardous and toxic waste at Labuang Baji Hospital in Makassar City. Where, this method is something that later can be a way to find answers to problems previously described. This type of research is a descriptive study whose data is in the form of written words, descriptions obtained from informants, and observed subject behavior (Baxter Pamela & Jack, 1990; Miles et al., 2014).

RESULT AND DISCUSSION

This study discusses the supervision carried out by the Makassar City Environmental Service on the management of hazardous and toxic waste at Labuang Baji Hospital. This study discusses the supervision of the Makassar City Environmental Agency on the management of hazardous and toxic waste at Labuang Baji Hospital. As is well known, B3 waste is one of the factors causing environmental pollution which can also be a source of disease for the community if the management process is not carried out properly. Departing from this, the Department of the Environment is expected to carry out effective supervision in order to create a healthy environment.

The results of the research presented in this paper are based on the formulation of the problem described in the introduction, namely the supervision of the Makassar City Environmental Service on B3 waste management at Labuang Baji Hospital. The data obtained from interviews and documentation conducted at the Makassar City Environmental Service and Labuang Baji Hospital will then be discussed according to the predetermined research focus. There are three research indicators that will be in this research, namely measuring instruments

or also known as standards, assessments and improvements.

Based on the results of the recapitulation of the three monitoring indicators, it can be concluded that the supervision of the Makassar City Environmental Service on Hazardous and Toxic Waste Management at Labuang Baji Hospital has been implemented effectively. This can be seen from the determination of the B3 waste management standard that does not exceed the limit of the B3 waste produced by the Labuang Baji Hospital. In addition, the assessment was carried out in the form of a direct visit by the Makassar City Environmental Service to the Labuang Baji Regional Hospital every year and the corrective actions taken by the Makassar City Environmental Service in the form of a direct warning to the Labuang Baji Hospital.

However, there are several obstacles that have the potential to limit the movement of supervision of the Makassar City Environmental Service. These constraints are the absence of supporting facilities such as transportation, the lack of budget given to the supervisory team to carry out monitoring, verification and supervision of B3 waste, the exclusion of the people around Labuang Baji Hospital, and the lack of knowledge of staff in medical hazardous waste supervision.

In accordance with the results of the research that was previously described, regarding the supervision of the Makassar City Environmental Service on the Management of Hazardous and Toxic Waste at Labuang Baji Hospital, it can be seen that the ongoing supervision is a repressive one. Where, repressive supervision is supervision that is carried out after the implementation of the work. The point is to ensure the continuity of work so that the results are in accordance with the plan.

One form that shows that the supervision carried out by the Makassar City Environmental Service is referred to as repressive supervision, which is marked by the implementation of repressive systems in the implementation of supervision by the Environmental Office of the Labuang Baji Hospital. These systems are comparing reports of implementation results with plans that have been previously decided, making an assessment of the results of their implementation, and checking the truth of a report made by the implementing officers. The following will discuss the supervision of the Environmental Service Office based on the research indicators used.

Establish a measuring instrument (standard) for the control of hazardous waste management

Setting standards in supervision is a way that must be agreed upon by all related individuals to compare performance results in all respects, with the hope that this step can guarantee the effectiveness (Amanda et al., 2017; Umi Farida, 2017; Syamsiar et al., 2018). It is true that in view of an effective management oversight, the Makassar City Environmental Service sets standards in the form of a formal document that creates criteria, methods, processes and practices. In the supervisory process, measuring instruments or standards are usually used to determine operating procedures and standards. In this case, the Makassar City Environmental Service has implemented measuring instruments or standards as a part of supervisory measures.

The monitoring process is carried out by making several documents a condition for obtaining a B3 waste management permit. Supporting documents that are used as a condition become a form of supervisory action which indirectly plays an important role in smoothing the monitoring process. It is from these requirements that the Makassar City Environmental Agency can find out how many new waste processing actors are in Makassar City.

The effort to make a measuring instrument (standard) as part of the supervision has been fully felt by the B3 waste processor. This can be seen from the increase every year to obtain a B3 waste management permit, besides that the required permit also has a strong legal basis so that waste processing actors can comply with all forms of management requirements to obtain

this permit.

Conducting a Hazardous Waste Management Supervision Assessment

Conducting an assessment is one form of monitoring action to see and measure the extent to which the implementation and results have been achieved (U. Farida et al., 2015; Nawir et al., 2018; Syamsiar et al., 2018). The assessment of B3 waste management carried out by the Makassar City Environmental Service is one of the measures to measure the merits of B3 waste management that occurs.

This assessment action was marked by conducting a direct visit by the Makassar City Environmental Service to all existing waste processing actors. Usually, each waste processing actor receives direct visits 1 to 2 times a year. The purpose of this direct action is to see how the actual conditions of B3 waste management that occur in the field are. However, due to several obstacles, direct visits often do not run optimally, this is indicated by a lot of waste accumulation in the B3 waste processor, which requires direct supervision from the Environment Agency.

Reports provided by waste processing actors, be they hospitals, companies or hotels, which are deposited once in 3 months are used as a reference for the supervisory team to see whether the management report presented is in accordance with what happened. However, if the monitoring process through direct visits alone cannot run optimally, the assessment of the waste balance report will also not be fully optimal.

Implementing B3 Waste Management Supervision Improvement

Basically, corrective action is a way to improve performance that is below standard and then analyzed to show what actions needs to take (Andersson et al., 2005; Battarra et al., 2018; Maba et al., 2017; Mentzer & Konrad, 1991; Shafiee et al., 2019). In this case the Environmental Service of Makassar City has actions to avoid irregularities that will occur and have the potential to damage the environment. Corrective action was marked by giving a direct warning to the Labuang Baji Regional Hospital.

The Makassar City Environmental Office will give a direct warning when they are in the field and find things that are not in accordance with the management guidelines. This action is carried out solely to protect the environment from B3 waste pollution. Later, if this warning is not heeded by the waste processing actors, administrative sanctions will be given and if the sanctions are not followed, the next action is to revoke the waste management permit.

Currently, we cannot deny that there are still many actors who treat waste that are not properly managing them. So that this causes many losses experienced by people whose settlements are around the B3 waste processor. The Environmental Service as a government agency of Makassar City has a very important role in monitoring B3 waste. This is related to the various efforts that have been made to support the creation of a healthy living environment.

The research that has been carried out related to the supervision of the Makassar City Environmental Service on the management of hazardous and toxic waste at Labuang Baji Hospital refers to Government Regulation Number 101 of 2014 concerning Management of Hazardous and Toxic Waste and Regulation of the Mayor of Makassar Number 39 of 2016 concerning Position, Composition Organization, Duties and Functions and Work Procedures of the Environmental Service.

Makassar mayor Regulation No.39 of 2016 article 17 paragraph (1) states that: Solid Waste, Hazardous Waste and Capacity Building which has the task of compiling, implementing and coordinating solid waste management policies, hazardous and toxic waste and increasing environmental capacity.

The article above is generally in accordance with what the Environmental Service Office

of Makassar City has done and is doing, this can be seen from carrying out various activities, including monitoring of B3 waste, the Section for Control and Development of the Waste and B3 Waste System has implemented all policies based on applicable regulations. One example can be seen in the making of Government Regulation No. 101/2014 as the legal basis for making SOPs besides the implementation of the rules in Government Regulation No. 101/2014 Article 12 Paragraph (4) that:

In order to obtain a B3 waste management permit for B3 waste storage activities, everyone who generates B3 waste: (a) is required to have an environmental permit (b) must submit a written application to the regent / mayor and attach the permit requirements.

Based on the research that has been carried out through the interview process, it can be seen together that the above policies have been implemented well in the Makassar City Environmental Service by making environmental permits and written reports to the mayor as a condition for obtaining a waste management permit, this is also evidence that the regulations on Makassar Mayor regulation Number 39 of 2016 and Government Regulation Number 101 2014 have been implemented.

CONCLUSION

The supervision carried out by the Makassar City Environment Agency on the management of hazardous and toxic waste at Labuang Baji Hospital is running effectively. This can be seen from the three indicators: 1) The measuring instrument (standard), the supervision of B3 waste management carried out by the Makassar City Environment Agency has so far been effective, this can be seen from the B3 waste produced by Labuang Baji Hospital that does not pass the predetermined standards. However, there were several parameters that passed the maximum standard in February. Even so, so far the B3 waste management can still be handled by the Labuang Baji Hospital so that it does not damage the environment, 2) Through the assessment action, the Makassar City Environmental Service in carrying out supervision of the Labuang Baji Regional Hospital has been effective. This is marked by the implementation of direct visits every year, the existence of minutes of reports and the existence of a quarterly report submitted by the Labuang Baji Hospital to the Makassar City Environmental Service. However, in the assessment, it is known that the lack of community participation in the form of providing advice and reports has resulted in many people who do not know the dangers and impacts of B3 medical waste produced by the hospital. In addition, through the assessment action, the Makassar City Environmental Service is still experiencing problems in the form of a lack of specific knowledge regarding B3 medical waste owned by the supervisory team, and 3) The corrective actions taken by the Makassar City Environment Agency against B3 waste processing actors have so far been effective. This can be seen from the direct warning given to the Labuang Baji Regional Hospital for not having an activity permit regarding the Wastewater Disposal Installation.

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