



APPLICATION OF SCIENTIFIC EVIDENCE AS A LEGITIME TOOL OF EVIDENCE IN CRIMINAL ACTS OF VIOLATION ENVIRONMENTAL QUALITY STANDARDS

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Article history:	Abstract:
Received: 6 th March 2022 Accepted: 6 th April 2022 Published: 17 th May 2022	Environmental pollution that is prevalent is due to the implementation of development and uncontrolled use of natural resources. The facts on the ground show that in general environmental crimes occur in the form of violations of environmental quality standards. Legal action against perpetrators of environmental pollution and destruction consists of administrative aspects, civil aspects, and criminal aspects. In enforcing environmental law, one of the crucial issues is the problem of proving that is so difficult and complex. It takes scientific evidence whose validity is not in doubt and to qualify as valid evidence in order to convince judges to decide whether or not a person or corporation is guilty .

Keywords: Pollution, Quality Standards and Scientific Evidence.

INTRODUCTION

Humans and other living things have inhabited Earth for centuries and coexisted with one another. The development of human life, especially in technology, began in the 18th century which was marked by the start of the Industrial Revolution. Rapid development has both positive and negative impacts on economic, social, cultural and industrial changes, as well as the negative impacts of the industrial revolution, in the form of pollution and environmental damage which of course pose a risk to the survival of humans and other living creatures.

Pollution is a condition in which a substance or energy is introduced into an environment by human activities or by natural processes themselves in such a concentration as to cause a change in the said condition which causes the environment to not function as before in terms of health, welfare and life safety. (Erwin, 2008). Environmental pollution causes environmental damage, decreases the carrying capacity of the environment, threatens human health and, also threatens the sustainability of the environment itself, even though the survival of human life is highly dependent on the available resources, both biotic and abiotic. In essence, environmental issues are finding ways that must be implemented to ensure and make the earth and the natural surroundings a suitable space for living for a peaceful, peaceful and prosperous life. Therefore, actions that pollute the environment are tantamount to killing life itself (Suparni, 1994).

The rise of various cases of environmental pollution, one of which is caused by waste generated by industrial activities. Industrial activities often generate liquid waste containing toxic hazardous materials (B3). The liquid waste is discharged into public waters, namely urban drainage and water bodies without any treatment. Corporate activities that produce industrial waste are carried out by professionals who have a neat organizational system so that the crimes committed are sometimes difficult to prove. Therefore, the ability of law enforcement officers is needed, not only related to legal aspects, but also needs to carry out *scientific evidence* such as laboratory test results and expert statements which are needed as a series of evidence that are interconnected and explain each other. This is to convince the judge that an environmental crime has occurred, namely a violation of environmental quality standards by a corporate activity from the threshold value which is the limits of carrying capacity, tolerance and tolerance or environmental capability.

Based on the explanation above, the authors are interested in discussing the application of evidence of waste samples in environmental criminal cases in cases of violations of environmental quality standards.

DISCUSSION

The living environment is the unity of space with all objects, power, circumstances, and living things including humans and their behavior that affect the continuity of life and the welfare of humans and other living creatures. (Hamzah, 2008) The Indonesian environment as an ecosystem is the order of environmental elements which are a unified whole, comprehensive and mutually influencing in forming a balance of environmental stability and productivity. Ecosystems consist of various subsystems, which have social, cultural, economic, and geographical aspects with

different patterns that result in different environmental carrying capacities and capacities. Such a situation requires guidance and development of the environment that will increase the harmony, harmony, and balance of the subsystem which means also increasing the resilience of the subsystem itself. (Sunarso, 2005). Along with the need for development to improve human welfare, on the other hand it shows that development can and has caused various negative impacts. The concept of unsustainable and unsustainable development will not only exacerbate existing environmental and social problems but will also trigger new environmental problems, including problems of forest and land damage, coastal and marine damage, water and soil pollution. and air, urban and social environmental problems. The issuance of Law Number 32 of 2009 concerning Environmental Protection and Management (UUPPLH) is intended to further strengthen aspects of planning and enforcement of environmental laws, which can be seen from the structure of laws that are more dominant in regulating aspects of planning and law enforcement. However, the law does not mention the commitment of stakeholders in their efforts to slow, stop and repair environmental damage.

Environmental protection and management is a systematic and integrated effort carried out in the context of preserving environmental functions and preventing environmental pollution and/or damage which includes planning, utilization, control, maintenance, supervision, and law enforcement. It is said that the occurrence of environmental pollution is the occurrence of a violation of the parameters of the Environmental Quality Standards that have been determined by exceeding the parameters regulated further in technical regulations . Specifically, the definition of Environmental Quality Standards is regulated in Article 1 number (13), (14), and (15) UUPPLH, Environmental Quality Standards are a measure of the limits or levels of living things, substances, energy, or components that exist or must exist and / or a pollutant element whose existence is tolerated in a certain resource as an element of the environment. Meanwhile, the definition of Environmental Pollution itself is the entry or inclusion of living things, substances, energy, and/or other components into the environment by human activities so that they exceed the established environmental quality standards. As for the standard criteria for environmental damage is the size limit of changes in the physical, chemical, and/or biological characteristics of the environment that can be tolerated by the environment in order to continue to preserve its functions. Furthermore, Article 20 paragraph (1) states that the determination of the occurrence of environmental pollution is measured through environmental quality standards and Article 20 paragraph (3) states that environmental quality standards include: water quality standards, waste water quality standards, sea water quality standards. , ambient air quality standards, emission quality standards, interference quality standards, and other quality standards in accordance with the development of science and technology. Further technical regulations regarding the parameters of the wastewater quality standards are contained in the Regulation of the Minister of the Environment Number 5 of 2014 concerning the Wastewater Quality Standards for Industrial activities and in Article 1 number (31) of the Regulation defines Wastewater Standards as a measure of the limit or level of pollutant elements and/or the tolerable amount of pollutant elements in wastewater that will be disposed of or released into the water medium from a business. and/or activities. These articles mean that the existing environment must be protected and managed, taking into account the existing limits or levels of environmental quality standards, so that the carrying capacity of the environment and the carrying capacity of the environment are balanced, so that in the end a sustainable development of the environment is created in preserving the environment. survival of humans and other creatures.

This case of environmental pollution and destruction is very dangerous for the welfare of mankind. Moreover, environmental pollution and destruction is carried out by companies engaged in various fields of activity, be it mining, forestry and others. Therefore, the aspect of law enforcement requires maximum attention and empowerment actions, especially for companies that damage and pollute the environment. Legal Action in UUPPLH regulates administrative aspects, civil aspects and criminal aspects. The criminal law regulated in the law serves as a last resort if other legal aspects are not adhered to. This aims to ensure the enforcement of the law on environmental protection and management in the law. Criminal law provisions are regulated from Article 97 to Article 120. From these provisions the formulation of environmental offenses is qualified in material and formal offenses. The formulation of material offenses is contained in Articles 98, 99, and 112, and the formulation of formal offenses is contained in Articles 100, 111, 113, 114, and 115. Environmental quality standard crimes in Article 98 refer to three (3) parts, namely paragraph (1) refers to the intentional element, "everyone intentionally commits an act that results in exceeding the ambient air quality standard, water quality standard, sea water quality standard, or the standard criteria for environmental damage, shall be punished with imprisonment for a minimum of 3 years and a maximum of 10 years. years and a fine of at least three billion and a maximum of twelve billion". Paragraph (2) refers to an act that results in injury/health hazard, "everyone intentionally commits an act that results in exceeding the ambient air quality standard, water quality standard, sea water quality standard, or the environmental damage standard criteria, and results in injured person and/or danger to human health, shall be punished with imprisonment for a minimum of 4 years and a maximum of 12 years and a fine of at least four billion and a maximum of twelve billion". In paragraph (3) this refers to acts that result in serious injury or death, "everyone intentionally commits an act that results in exceeding the ambient air quality standard, water quality standard, sea water quality standard, or the standard criteria for environmental damage, shall be subject to a criminal sanction. with imprisonment for a minimum of 5 years and a maximum of 15 years and a fine of at least five billion and a maximum of fifteen billion". In criminal acts, elements of negligence in exceeding ambient air quality standards, water quality standards, sea water quality standards, or environmental damage standard criteria are regulated separately in Article 99. Then for criminal acts of violation in environmental quality standards , Article 100 regulates for any person who violates the waste water quality standard, emission quality standard, or disturbance quality standard, the punishment is a maximum of 3 years and a maximum fine of three billion, provided that the

administrative sanctions imposed are not complied with or the violation is committed more than once. (Kompasiana, 2012). Environmental criminal law enforcement in Article 100 contains the principle of *ultimum remedium*, namely the application of criminal law enforcement as a last resort after administrative law enforcement is deemed unsuccessful.

In Enforcement of Environmental Law, one of the biggest challenges is the issue of evidence, this is because evidence in environmental cases is so complex. The evidentiary system maintained by Indonesia until now in Law No. 8/1981 on the Criminal Procedure Code (KUHP) is a negative legal-based evidence system. This evidentiary system integrates itself in an integrated manner between the evidentiary system according to belief and the statutory proof system in a positive manner. This evidentiary system is based on the rules of evidence that are limited by law, but this must be followed by the judge's conviction (Bakhri, 2008). This system is intended to prove a provision that at a minimum can guarantee the establishment of true truth, as well as the establishment of justice and legal certainty, so that this system is considered appropriate in law enforcement. The arrangements for legal evidence as regulated in Article 184 paragraph (1) of the Criminal Procedure Code are:

- a) witness testimony;
 - b) expert testimony;
 - c) letter;
 - d) instruction; and
 - e) defendant's statement.
- f) Meanwhile, in the provisions of Article 96 of Law No. 32 of 2009 namely:
- g) witness testimony;
 - h) expert testimony;
 - i) letter;
 - j) instruction;
 - k) the defendant's statement; and/or
 - l) other evidence, including evidence regulated in laws and regulations.

The process of proving in environmental cases related to scientific evidence is a problem that plays a very important role in the trial process. Judges need to have the ability to judge scientific evidence. This is because environmental cases have certain characteristics that are different from other cases. Environmental matters are complex and also to explore *scientific evidence* requires a large amount of money. Referring to the guidelines for the Decision of the Chief Justice of the Supreme Court Number 36/KMA/SK/II/2013 concerning the Implementation of Guidelines for Handling Environmental Cases, the Evidence consists of statements of witnesses, expert statements, letters/documents (among others referring to Article 14 of the Law of the Republic of Indonesia). Number 32 of 2009 concerning Environmental Protection and Management), results of laboratory analysis, other evidence : photos and data stored electronically, for example hotspot maps and their interpretations, emails, satellite photos and their interpretations (referring to Law of the Republic of Indonesia Number 11 2008 concerning Information and Electronic Transactions), scientific evidence supported by expert statements. This scientific evidence is for example the results of laboratory analysis, calculation of compensation due to pollution and/or damage from experts. This scientific evidence must be supported by expert testimony at the trial to be a valid tool. The purpose of scientific evidence is to:

- 1) Increase the judge's confidence;
- 2) Provide guidance for judges in assessing the authenticity of evidence.

Environmental quality data from laboratory results can be used as an indicator if environmental pollution occurs as well as evidence for environmental law enforcement as well as in making environmental management plans and policies . In order to get the validity of reliable environmental quality parameter testing data according to the objectives as stated in SNI 6989.59:2008 concerning Wastewater Sampling Methods, several things must be considered, namely:

1. Sampling planning, this is important because it will determine the cost of sampling, test parameters, sample type;
2. preparation of sampling, among others, sampling officer, preparation of equipment, preparation of preservation;
3. location and point of environmental sampling includes determining the location and point of sampling and the last is related to the assurance and quality control of environmental sampling.

The importance of good laboratory management, complete laboratory equipment, competent personnel, guaranteed quality and availability of costs can maintain good data validity so that the application of scientific evidence can be applied to become valid evidence.

The validity of scientific evidence is something that is very important to be legal evidence. There has been an increase in cases of environmental pollution but the frequent failure of these cases when going through the court process in Indonesia is often due to a lack of data and information as well as data collected from the field and the results of laboratory analysis are insufficient or not valid. For example in handling cases of river pollution and forest fires. Environmental sample data as scientific evidence of pollution is sometimes very weak, so that indictments and evidence are weak so that it can result in polluters being free from legal entanglements because the evidence submitted cannot be accepted as scientific evidence.

Weaknesses in scientific evidence are often exploited by certain irresponsible business parties, so that they do not manage the environment properly and are free from administrative, civil and criminal lawsuits. This happened as in Decision No. 781/Pid/B/2009/PN.Cbn in which the judge acquitted the defendant PT. Roselia Texindo on charges of

environmental pollution in Cikuda river water, Bogor. The Bogor District Prosecutor's Office was declared to have submitted evidence that did not meet the requirements as evidence. Examination of the evidence at the trial showed that sampling of the wastewater from the Cikuda river flowing at the PT. Roselia Texindo cannot be scientifically accepted evidence. This is because the process of taking and testing wastewater samples is not in accordance with the standards for testing wastewater samples in the laboratory. Sampling without involving the company and storage exceeding the 6 (six) hour time limit were the reasons for the rejection of the evidence.

APPLICATION OF SCIENTIFIC EVIDENCE IN DECISION NUMBER 917/ PID.B/LH/2020/PN BDG

The process of proving in environmental cases is not an easy thing. The collection of data and information as scientific evidence has a major influence on the judge's conviction. Wastewater samples as legally accepted scientific evidence can be seen in Decision Number 917/Pid.B/LH/2020/PN Bdg. In this Decision PT. TJIMINDI SUBUR, who was represented by Hernie Jusnita Linliana as Commissioner, was charged with a criminal act of violating environmental quality standards and the judge in this decision found the defendant guilty of having committed a crime by intentionally committing an act that resulted in waste water quality standards, emission quality standards or interference quality standards as referred to in paragraph (1). was charged with Article 100 paragraph (1), (2) in conjunction with Article 116 paragraph (1) letter a of Law Number 32 of 2009 and imposed a fine of Rp. 500,000,000 (five hundred million rupiah). One of the judges' considerations in this decision was the evidence of laboratory test results from the UPT Environmental Laboratory Kab. Bandung Number: 1691/LHU/2019 dated 27 August 2019 where environmental sampling at the *Outlet point* and *Wet Scruber channel* was carried out by the National Police Criminal Investigation Team and Laboratory officers and the company. The results of the laboratory examination contained several parameters that exceeded the quality standard and was strengthened by expert testimony which stated that the chemical properties in the wastewater samples taken exceeded the specified environmental quality standard parameters, namely TSS, BOD, COD, Zinc and Lead, which can endanger living ecosystems and are intentionally disposed of directly into environmental media without being processed/processed with WWTP (Wastewater Treatment Plant).

The indictment by the public prosecutor is judged by the judge to have two elements that must be proven and these two elements have been proven to be valid and convince the judge. The element is "everyone" i.e. an individual or business entity, whether it is a legal entity or not, and in this case it is carried out by a corporation and other elements, namely "deliberately committing an act resulting in exceeding the waste water quality standard, emission quality standard, or disturbance quality standard", in which the judge believes that the perpetrator's actions were carried out with intent and certainty and the laboratory results which are legal evidence have shown that the act has exceeded the environmental quality standards, especially the quality standards for waste water entering the environmental media.

CONCLUSION

Activities aim to improve human welfare but on the other hand show that development can cause various negative impacts. The concept of unsustainable and unsustainable development will exacerbate environmental and social problems. Therefore, a systematic and integrated effort is needed in order to preserve environmental functions and prevent pollution and/or environmental damage, which includes planning, utilization, control, maintenance, supervision, and law enforcement.

Violation of the parameters of the Environmental Quality Standards is environmental pollution that has been determined by exceeding the parameters regulated further in technical regulations. Environmental Quality Standards are regulated in Article 1 number (13), (14), and (15) and for the category of pollution regulated in Article 20 of Law Number 32 of 2009. Technical provisions regarding waste water quality standards are regulated in the Regulation of the Minister of the Environment. Number 5 of 2014 concerning Wastewater Quality Standards. Legal action given to perpetrators of environmental pollution and destruction consists of administrative aspects, civil aspects, and criminal aspects. In the aspect of criminal law, the formulation of material offenses is contained in Articles 98, 99, and 112, and the formulation of formal offenses is contained in Articles 100, 111, 113, 114, and 115. Criminal acts of violating Environmental Quality Standards are regulated in Articles 98, 99 and Articles 100.

In Enforcement of Environmental Law, one of the biggest challenges is the issue of Evidence. Legal evidence is regulated in Article 184 paragraph (1) of the Criminal Procedure Code and Article 96 of the UUPLH. In the guidelines for the Decision of the Chief Justice of the Supreme Court Number 36/KMA/SK/II/2013 concerning the Enforcement of Guidelines for Handling Environmental Cases, the Evidence consists of statements from witnesses, expert statements, letters/documents, laboratory analysis results, other evidence and supported scientific evidence. expert testimony.

Quality data from laboratory examination results can be used as an indicator if environmental pollution occurs as well as evidence for environmental law enforcement as well as in making environmental management plans and policies. The validity of scientific evidence is something that is very important to be valid evidence. If scientific evidence does not meet the requirements as evidence, it cannot be valid evidence.

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