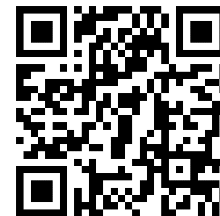


Legal Status on Hazardous Waste Management in VietNam



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ABSTRACT: The issue of hazardous waste poses an increasingly grave threat to both the environment and human health, particularly within Vietnam. The role of hazardous waste management laws is paramount in ensuring safety and safeguarding the natural surroundings. Nevertheless, the current state of implementing and adhering to these legal regulations is riddled with numerous constraints and obstacles. This article aims to delve into the legal landscape of hazardous waste management in Vietnam, examining the challenges and limitations associated with its enforcement. Consequently, the article underscores the significance and urgency of effectively implementing measures for hazardous waste management to shield the environment and public health. Furthermore, the article presents potential solutions to ameliorate the existing situation, such as bolstering oversight mechanisms and fostering active involvement from the community and businesses. Addressing this topic is pivotal for Vietnam's sustainable development in the realm of environmental protection and human health.

1. INTRODUCTION

Hazardous waste is defined as waste that contains elements that are toxic, radioactive, infectious, flammable, explosive, corrosive, poisoning or has other hazardous characteristics according to Clause 13, Article 3. of the Law on Environmental Protection 2014. Hazardous waste management is the process of preventing, minimizing, monitoring, classifying, collecting, transporting, reusing, recycling and treating hazardous waste.

Hazardous waste management activities pose many requirements because its object is hazardous waste, a type of waste that can pose a high danger to the environment and humans. To effectively manage and control hazardous waste, it is necessary to apply advanced scientific, technological and technical measures, and at the same time regulate with appropriate legal regulations.

Currently, legal issues on hazardous waste management are clearly regulated in environmental legal documents. These documents include: Law on Environmental Protection 2014, Decree No. 38/2015/ND-CP and Decree No. 60/2016/ND-CP of the Government on waste and scrap management, Circular No. 36/ 2015/TT-BTNMT of the Ministry of Natural Resources and Environment on hazardous waste management, Decree No. 40/2019/ND-CP of the Government amending and supplementing a number of articles of decrees detailing and guiding implementation Law on Environmental Protection, and many other documents.

In addition, Vietnam also participates in international conventions on hazardous waste management such as the Marpol Convention and the Basel Convention, and the legal content on hazardous waste management is specifically regulated from the prevent, reduce, monitor, classify, store, collect, transport, reuse, recycle, treat and destroy hazardous waste.

Overall, legal regulations on hazardous waste management are being completed and provide a solid legal framework to support effective hazardous waste management.

2. CURRENT STATUS OF LAWS ON HAZARDOUS WASTE MANAGEMENT IN VIETNAM

2.1 Legal regulations on hazardous waste management

The legal system on environmental protection in Vietnam has undergone significant developments, especially through the National Assembly passing the Law on Environmental Protection in 2014, replacing the old Law from 2005. This has created a new, more effective legal basis to deal with current environmental challenges.

The 2014 Law on Environmental Protection has set clear goals for developing a sustainable environment. In particular, hot issues such as climate change, green growth, and environmental planning are specifically mentioned. The law also focuses on

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supplementing regulations on state management of environmental protection, while concretizing the responsibilities and rights of socio-political organizations and socio-professional organizations. and the community in protecting the environment.

Thus, through the application of the 2014 Environmental Protection Law, Vietnam has a solid legal basis to combat environmental challenges that are becoming increasingly complex. This means creating a healthy and sustainable living environment for both the community and the ecosystem. After the 2014 Law on Environmental Protection was passed by the National Assembly, the Ministry of Natural Resources and Environment has promoted coordination with relevant agencies and units to develop guiding documents to ensure implementation. Law enforcement is effective and timely. These documents, all issued by the Government and the Prime Minister, include:

- Decree No. 114/2014/ND-CP: Regulations on conditions for importing and dismantling used ships, in order to control these activities on the environment.
- Decree No. 127/2014/ND-CP: Regulations on conditions for organizations performing environmental monitoring, to ensure the accuracy and reliability of environmental data.
- Decree No. 03/2015/ND-CP: Determining how to calculate and evaluate damage to the environment, which is the basis for handling cases harmful to the environment.
- Decree No. 18/2015/ND-CP: Regulations on environmental protection planning, strategic environmental assessment and environmental protection plans, to ensure sustainable development of the environment.
- Decree No. 19/2015/ND-CP: Detailed guidance on the implementation of a number of articles of the Law on Environmental Protection, helping to clarify the provisions of the Law.
- Decree No. 38/2015/ND-CP: Regulations on waste and scrap management, is one of the important points in environmental protection.
- Decree No. 60/2016/ND-CP: Regulations on business investment conditions in the field of environmental protection, to create favorable conditions for investors operating in this field.

In addition, other ministries have also issued many specific regulations guiding the implementation of contents such as: appraisal of environmental impact assessment reports, management of hazardous waste, and environmental management in economic zones and industrial parks. Furthermore, the system of national environmental standards and technical regulations has also been updated and adjusted to best reflect current realities and requirements. This shows Vietnam's efforts and commitment to promoting environmental management and protection, while creating favorable conditions for the country's sustainable development.

At local levels, efforts in hazardous waste management have been demonstrated through the development and implementation of directive documents, instructions, programs, and plans. Specifically, localities have issued documents such as:

- Regulations on environmental protection: These are local regulations on environmental protection, applied in provinces and cities, to regulate and guide activities related to the environment.
- Annual and 5-year environmental protection plans: These are local plans designed to specify specific goals and measures in environmental protection during certain periods of time.
- Environmental monitoring network planning: These are local plans to identify and deploy environmental monitoring systems to monitor and evaluate environmental quality.

In addition, in the field of hazardous waste management, specific legal documents have been issued and implemented in Vietnam. These documents include:

- Environmental Protection Law 2014: Separate regulations on hazardous waste management in Section 2 Chapter IX, creating a legal basis for hazardous waste management.
- Decree No. 38/2015/ND-CP: Detailed regulations on hazardous waste management, providing specific instructions and adjustments for activities related to hazardous waste.
- Hazardous waste management regulations: Issued together with Decision No. 115/1999/QD-TTg of the Prime Minister, providing specific regulations on hazardous waste management.
- Decision No. 16/2015/QD-TTg: On recovery and treatment of discarded products, replacing Decision No. 50/2013/QD-TTg, to improve waste treatment processes.
- Circular No. 36/2015/TT-BTNMT: Regulations on hazardous waste management, providing detailed guidance and adjustments on hazardous waste management.

In addition to legal documents, Vietnam has also participated in international conventions on hazardous waste management such as the Marpol Convention and the Basel Convention, demonstrating the country's commitment to international cooperation and promoting global environmental management measures. This reflects Vietnam's focus and determination in environmental management and protection, especially in the field of hazardous waste management.

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The legal content on hazardous waste management in Vietnam is organized and managed specifically and comprehensively, including regulations from the process of collection, storage, transportation to treatment and destruction. hazardous waste. At the same time, the law also assigns tasks and responsibilities to relevant entities, from state management agencies to organizations and individuals. Some specific points of the law on hazardous waste management include:

- Management and registration: Article 90 of the Law on Environmental Protection 2014

According to this regulation, hazardous waste source owners must document the type of waste they produce or own, as well as register with the competent state management agency on environmental protection. at the provincial level. This helps management agencies have an overview of the origin and scale of hazardous waste, thereby imposing effective management measures.

Licensing and operating codes: Organizations and individuals are responsible for ensuring that they meet hazardous waste management requirements. If they achieve the necessary standards and competencies, they will be licensed and assigned a hazardous waste management activity code. This ensures that only truly capable organizations and individuals are allowed to participate in hazardous waste management, helping to improve management quality and minimize risks to the environment and the community.

This regulation in the 2014 Environmental Protection Law focuses on building an effective hazardous waste management system, from information collection to licensing and monitoring the activities of organizations and individuals. related individuals. This helps protect the environment and public health from the negative effects of hazardous waste.

- Classification and transportation:

Regulations on classification and transportation of hazardous waste in the 2014 Law on Environmental Protection (Article 91) require waste classification before collection and transfer to the receiving party for management. During transportation, it is necessary to comply with safety and environmental protection regulations to ensure no harm to humans and the environment.

- Storage and treatment: Hazardous waste must be stored in specialized equipment to ensure safety for humans and the environment. The treatment process must use appropriate equipment and be recorded in the waste treatment license.

For example, a hazardous waste disposal company must comply with environmental safety measures and procedures when carrying out waste treatment. They need to use specialized equipment and appropriate transportation to ensure the safety of both employees and the surrounding environment.

- Responsibilities of management agencies

In the field of hazardous waste management, the Ministry of Natural Resources and Environment plays an important role in regulating and guiding related activities. This Ministry is responsible for regulating the list of hazardous wastes and licensing their treatment activities, according to the provisions of Article 90 of the Law on Environmental Protection 2014. In addition, the Ministry also proposes necessary procedures, requirements and regulations on licensing hazardous waste treatment, adjusted in Decree No. 38/2015/ND-CP. At the same time, the responsibilities of the Minister of Natural Resources and Environment include unifying nationwide management of hazardous waste, promulgating appropriate regulations, managing activities and records, reports, and contracts. related to hazardous waste. In addition, the Ministry is also responsible for building and operating the information system, national database on hazardous waste, as well as guiding the implementation of regulations on registration and reporting of hazardous waste management. harmful. For agencies at the local level, such as the Department of Natural Resources and Environment, the primary responsibility is to manage activities and records related to hazardous waste within their locality, and report management situation for the Provincial People's Committee and the Ministry of Natural Resources and Environment(Hien 2018).

The law clearly stipulates the legal status of individuals and organizations related to the environment and hazardous waste, creating conditions for them to participate in environmental management activities. The State, as a management entity, has created a favorable and reliable legal environment for hazardous waste management activities nationwide. This helps control hazardous waste from its source and effectively implement management steps such as collection, transportation, storage, treatment and disposal of hazardous waste.

2.2 Limitations and inadequacies of the law on hazardous waste management in Vietnam

It can be seen that Vietnamese law has established a solid basis for hazardous waste management. Since these regulations, waste management activities have made significant progress, helping to minimize negative impacts on the environment.

However, there are still limitations and inadequacies in the system of legal documents on this issue. These have affected the effectiveness of law enforcement in practice. Specifically, these limitations can be analyzed through the following aspects:

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- *Firstly, regulations on transporting hazardous waste*

One of the issues that needs more attention is the regulation of hazardous waste transportation. Currently, regulations on waste transportation are still quite vague and lack specificity, causing ambiguity in determining the responsibilities of waste processors during the transportation process.

For example, according to the provisions of Article 12 of Decree No. 38/2015/ND-CP, hazardous waste processors must sign contracts with waste source owners and carry out the transportation and treatment of hazardous waste by means of transportation. Vehicles are allowed. However, this regulation does not provide enough information about the specific responsibilities of handlers during transportation, leading to ambiguity in application and lack of feasibility.

In addition, according to the provisions of Clause 2, Article 9 of Circular No. 36/2015/TT-BTNMT, waste treatment owners must be fully responsible for the operation of non-official transport vehicles. However, the law does not specify specific forms and control measures to ensure accuracy and efficiency in this process.

Therefore, there is a need to supplement and adjust relevant regulations to create a clearer and more specific legal framework on responsibilities and measures to handle violations during the transportation of hazardous waste. This will help improve management efficiency and reduce risks to the environment and human health.

- *Second, it is required that vehicles transporting hazardous waste must have a GBS satellite system*

Regulations on equipping satellite positioning systems (GPS) for vehicles transporting hazardous waste, according to Article 8 of Circular No. 36/2015/TT-BTNMT, are currently facing a number of limitations and are not applicable, consistent with reality.

The concept of a "GPS satellite navigation system" may be a new concept to entities involved in hazardous waste management, making implementation of this regulation difficult.

In situations where vehicles go to locations with no network connection or unstable network, updating and transmitting data about location and transportation itinerary will be difficult. This may eliminate the feasibility and effectiveness of using GPS systems to monitor hazardous waste transportation. (Draw 2017).

Therefore, it is necessary to review this regulation to make it more suitable for Vietnam's actual conditions. Measures such as using alternative technologies to GPS in areas with unstable networks or providing specific instructions on the implementation of this regulation in special situations could be considered.

- *Third, regulations on handling violations of the law on hazardous waste management*

Although there are legal documents such as Decree No. 179/2013/ND-CP and Decree No. 155/2016/ND-CP that only mention increasing fines without going into details on how to handle fines, specific violation. This leads to non-transparency and inconsistency in the application of penalties for different cases of violations. This lack of specificity can create ambiguity and reduce the effectiveness of measures to handle violations, causing subjects to not feel clear about the consequences of their violations and not be motivated, force to comply with regulations.

Meanwhile, criminal liability still appears limited, especially for commercial legal entities. Criminal liability is the most serious sanction applied to entities that violate regulations on hazardous waste management. An important step forward in this field is that the 2015 Penal Code (amended and supplemented in 2017) mentioned the criminal liability of commercial legal entities. Although criminal liability is only applicable to crimes specified in Article 76 of the Penal Code, this creates a legal basis to handle commercial entities when engaging in illegal activities, violations related to environmental pollution. However, the application of criminal liability still has some limitations. Article 236 of the 2015 Penal Code specifically regulates the handling of violations in the field of hazardous waste, but does not clearly stipulate the criminal liability of legal entities for violations of regulations, on hazardous waste management. This leads to a worrying shortcoming, especially when commercial legal entities are often the main entities causing the discharge of hazardous waste into the environment during production and business processes. Measures to check, inspect and handle violations also face many limitations. There is a lack of interest from authorities at all levels in monitoring and handling violations, as well as funding for environmental protection work is still limited. This leads to the handling of violations not being strong enough and not meeting the timeliness factor of reality.

Furthermore, community awareness about environmental protection and waste treatment is still very weak. People are not fully aware of the harmful effects of waste on health and the environment, and consider waste management to be the responsibility of the State, not their own. Therefore, widespread littering is still common and becoming increasingly serious.

3. SOME SUGGESTIONS AND RECOMMENDATIONS

The hazardous waste management system not only plays an important role in ensuring the effectiveness of environmental protection but also affects the quality of human living environment. However, there still exist limitations and inadequacies in legal regulations related to hazardous waste management activities. To overcome these limitations, the following measures should be taken:

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- Firstly, it is necessary to continue to improve environmental laws to overcome ambiguity in determining technical requirements and management procedures for vehicles and equipment for collecting and transporting hazardous waste. .

This requires the Ministry of Natural Resources and Environment to conduct review, calculation and evaluation to promulgate specific regulations and guidelines on technical safety and environmental protection similar to the regulations applicable to other areas. means of transporting goods of the same type. This regulation needs to be transparent and consistent with actual conditions to be applicable in practice. Implementing this proposal effectively will not only ensure the feasibility of legal regulations but also make it easier for subjects to comply and enforce the law.

- Second, to overcome the ambiguity in implementing the obligation to classify and collect hazardous waste

Environmental laws need to have clearer guidance on specific measures; Specific regulations on hazardous waste collection points specifically for this group of subjects; Clearly stipulate local responsibilities in organizing common hazardous waste collection locations for households and individuals. This location must be managed by a State agency or have a management coordination mechanism, which can be divided into different large and small levels depending on the population situation of each locality.

- Third, for regulations on distance from hazardous waste treatment facilities

To ensure safety for people and the environment, Clause 2, Article 93 of the 2014 Law on Environmental Protection should be revised as follows: "There is a distance to ensure no adverse effects on the environment and people." This distance will be determined by the competent authority in accordance with the situation of each locality. The assignment to the competent authority of each locality will ensure compliance with the characteristics of that locality. At this time, local competent authorities will issue specific regulations on the safe distance of hazardous waste treatment facilities.

At the same time, to overcome the shortage of personnel at hazardous waste transfer stations, it is necessary to amend Point b, Clause 5, Article 9 of Decree No. 38/2015 in the direction of small and medium-sized hazardous waste transfer stations. There must be at least 01 person. For large hazardous waste transfer stations, there must be at least 02 people in charge of management, administration, and professional and technical guidance with relevant professional qualifications. to the environment or chemistry and be granted a hazardous waste management certificate according to regulations.

- Fourth, improve waste management activities

It is necessary to have specific regulations on technical standards for vehicles and equipment for collecting and transporting hazardous waste. This includes setting capacity, structural and safety requirements to ensure efficient and safe transportation operations.

In addition, it is necessary to clearly define the responsibilities of hazardous waste processors for controlling the activities of unauthorized transport vehicles. This helps ensure compliance with legal regulations and environmental protection (Cuong 2019). It is proposed to maintain the use of the navigation system (GPS) but needs to be adjusted and improved to increase practical effectiveness. GPS training and guidance is needed for stakeholders and internet connectivity is expanded to ensure the transport process is updated accurately and continuously. This will help improve hazardous waste transportation management and ensure environmental safety.

- Fifth, the State needs to create incentive policies to promote the use of clean and advanced technology in environmental protection.

This could include tax reductions, tax exemptions, and creating reward and recognition systems for businesses and organizations that implement good environmental protection measures. At the same time, these achievements should also be publicly promoted in the media and mass information channels, in order to create motivation for organizations and businesses to be conscious of environmental protection issues. and reduce pollution from hazardous waste.

- Sixth, it is necessary to strengthen propaganda and education about the content of the law on hazardous waste management to raise community awareness.

In particular, attention needs to be paid to informing people living near waste treatment facilities. Using mass media such as newspapers, television, banners, and slogans helps spread the message about the harmful effects of hazardous waste on the environment and public health. This will increase awareness and active participation of the community in implementing hazardous waste management laws.

4. CONCLUDE

In the context of increasing environmental pollution problems, hazardous waste management plays an important role in protecting the environment and human health. However, the legal status of hazardous waste management in Vietnam still has many limitations and inadequacies.

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Although progress has been made in setting regulations and management measures, there is still a need to continue to improve and specify them. There needs to be increased detailed guidance on technical requirements, management processes, and responsibilities of relevant entities. At the same time, encouraging the use of clean and advanced technology also needs to be promoted through incentive policies from the government.

In addition, propaganda and education on hazardous waste management issues also need to be strengthened to raise community awareness. Active participation from the community will play an important role in promoting the effectiveness of measures to manage and reduce environmental pollution.

In summary, improving the effectiveness of laws on hazardous waste management in Vietnam requires cooperation and efforts from relevant parties, along with determination from the government and the community. Only through these concerted efforts can we ensure a healthy and sustainable living environment for the future.

REFERENCES

- 1) Cuong, Tran Huu. 2019. Hazardous waste management: Problems and solutions. Hanoi: Science and Technology Publishing House.
- 2) Hien, Le Thi Thu. 2018. "Managing hazardous waste from light industries in Vietnam." Journal of Environment and Sustainable Development No. 8(1).
- 3) Hoa, Nguyen Duc. 2017. Hazardous waste management in Vietnam: Current status and solutions. Hanoi: VNU Publishing House.
- 4) Nguyen Thu Huyen, Pham Duc Tien, Trinh Hoang Phuong Nam, Ton Hoang Ho. 2017. "Survey on the current status of hazardous waste management at manufacturing enterprises in Ho Chi Minh City." Journal of Environment and Development No. 5(2).
- 5) Thuy, Pham Thi Minh. 2018. Hazardous waste and environmental management. Hanoi: Labor - Society Publishing House.
- 6) Tran Van Tinh, Nguyen Thi Minh Khai. 2019. "Current situation and solutions for hazardous waste management in Vietnam's industrial parks." Journal of Science and Technology.
- 7) Law on Environmental Protection 2014.
- 8) Law on Management and Use of Weapons, Explosives, and Support Tools 2018.
- 9) Decree No. 36/2015/TT-BTNMT.
- 10) Decree No. 38/2015/ND-CP.
- 11) Decree No. 127/2014/ND-CP.
- 12) Decree No. 03/2015/ND-CP.
- 13) Decree No. 18/2015/ND-CP.
- 14) Decree No. 19/2015/ND-CP.
- 15) Circular No. 36/2015/TT-BTNMT.
- 16) United Nations Environment Program (UNEP) reports on hazardous waste management.
- 17) World Health Organization (WHO) guidelines on hazardous waste management.



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