

LEGAL ASPECTS IN MANAGEMENT OF HAZARDOUS AND TOXIC WASTE

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Abstract

Hazardous and Toxic Waste (B3 in Indonesian abbreviation) have specific types and characteristics which could harm the environment itself and/or human health and other living being if thrown away to the environmental medium without proper treatment. On this basis, integrated hazardous waste treatment is needed to be regulated in a regulatory framework. Indonesian environmental law regime under Law no 32/2009 (EPMA) has given an integrated regulatory framework which intertwined every knot of hazardous and toxic waste treatment, including: containment, collecting, transporting, treatment, reuse, and dumping by Government Regulation No 101 year 2014. This article briefly explains the hazardous and toxic waste integrated treatment in Indonesia, both from the regulatory framework perspective and from environmental law aspect analysis.

Keywords: waste, hazardous and toxic, treatment, bioremediation.

Intisari

Limbah Bahan Berbahaya dan Beracun atau limbah B3 memiliki sifat dan karakteristik tersendiri yang dapat menimbulkan bahaya terhadap lingkungan hidup itu sendiri maupun kesehatan manusia serta makhluk hidup lainnya apabila dibuang langsung ke dalam media lingkungan hidup. Atas pertimbangan itulah, pengelolaan limbah B3 menjadi suatu kewajiban untuk diatur di dalam kerangka perundang-undangan. Rejim hukum lingkungan berdasarkan UU 32/2009 (UUPPLH) memberikan pengaturan secara terpadu yang menghubungkan keterkaitan setiap simpul Pengelolaan Limbah B3 yaitu kegiatan penyimpanan, pengumpulan, pengangkutan, pengolahan, pemanfaatan, dan penimbunan limbah B3 melalui PP Nomor 101 Tahun 2014. Artikel ini memaparkan secara ringkas konsep pengelolaan limbah B3 baik dalam kerangka pengaturan yang ada serta dengan analisis dari aspek hukum lingkungan yang terkait di dalam pengelolaan limbah B3 secara terpadu.

Kata kunci: limbah, bahan berbahaya beracun, pengelolaan, bioremediasi.

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A. Introduction

Environment as a whole medium for all aspects, whether biotic or abiotic, is the main element sustaining human and other living creatures' lives. Therefore, preservation of the environment is a necessity. This is the *raison d'être* of the Law Number 32 of 2009 regarding the Protection and Management of Environment (UUPPLH), which divides the concept of protection and management of the environment into 6 systems, which are: planning, utilization, control, maintenance, surveillance, and law enforcement.

The effort to manage waste from business activities is included in the system of controlling the pollution and or environmental damage. This is clearly stipulated in Article 13 of UUPPLH, wherein the effort to control pollution and or environmental damage includes the effort to prevent, counter, and rehabilitate. In the next rule stipulated, it is also stated that the instruments to help this effort are among others AMDAL (Environmental Impact Assessment), environmental permits, or the *Baku Mutu Lingkungan* (Environmental Quality Standard).

These instruments in essence leads to the obligation for the business actors to be responsible for the repercussions it created from his/her business activities. The existing legal principle lays out that the burden of the main responsibility lies on the polluter (polluter pays). This legal obligation then gives more demands when the characteristics of the waste varies. It is due to this factor that there

are waste needing special management, just as the specific obligations linked to it, that is the waste dubbed as hazardous and toxic waste (B3).

This differentiation does not only relate to the nature of the waste that is hazardous and toxic, and the substance of the waste itself; rather, it also relates to the waste's degradation in the environment, wherein pollutants are generally defined into two categories, which are:¹ (1) Pollutants that degrades easily (biodegradable pollutant);² and (2) Pollutants that has difficulty to degrade, or degrades in really slow pace (nondegradable pollutant).

The legal obligation for polluters is attached to the risk that may arise from the waste produced. This relates to the obligation to counter and rehabilitate the damage to the environment due to business activities risks. The obligation to counter this damage is done through certain measures, such as isolating the damage; stopping the source of damage; and other ways suitable with the development of education and technology.³ The obligation to rehabilitate the damages to the environment is done in steps as follows: (1) stopping the source of damage and cleaning the damaging element; (2) remediation;⁴ (3) rehabilitation;⁵ (4) restoration;⁶ and/or (5) other ways suitable with knowledge and technology.⁷

There is an emphasis on the last option of the counteraction and rehabilitation of damages, that is the possibility to conduct other ways suitable with the development of knowledge and technology. This outlines the existence of wide possibility for business actors to apply best adaptable technology,

¹ Subijoy Dutta, 2002, *Environmental Treatment Technologies for Hazardous and Medical Waste*, Tata McGrawhill, New Delhi, p. 38.

² *Ibid.* This kind of pollutant will create environmental problem if the production pace is faster than the degradation pace. As such, the characteristic of waste will be a substantial element in deciding the regulations.

³ Article 53 point (2) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁴ Remediation is defined as an effort to restore environmental damage to fix environment standards. See Elucidation of Article 54 point (2) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁵ Rehabilitation is defined as an effort to restore values, functions, and uses of environment including effort to prevent land damage, give protection, and fix ecosystem. See Elucidation Article 54 point (2) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁶ Restoration is defined as an effort to re-function the environment as it was. See Elucidation of Article 54 point (2) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁷ Article 54 point (2) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

or best available technology. This approach is in line with one of the common legal principle concerning the environment, that is the precautionary principle. This principle is included in the 15th point of the Rio de Janeiro Declaration 1992⁸, which essentially means that if there are damages unable to be rehabilitated, scientific uncertainty should not be used as a reason to avoid responsibility for environmental damage.⁹

For the reasons aforementioned, this article is put together as a normative discussion aimed to elaborate aspects of environmental law concerning the controlling of B3 waste. In short, the elaboration will be directed to the environmental law perspective of the B3 waste, and to the law enforcement aspects as means to control B3 waste.

B. Discussion

1. Legal Aspect Of B3 Waste Management

The management of B3 waste in national scale is based on ‘polluter pays principle’¹⁰ and ‘from cradle to the grave’ supervision system.¹¹ Based on UUPPLH, the obligation to manage B3 waste is attached to the business actors and or the polluter.¹² In case where the polluter could not conduct the management of B3 waste alone, it may transfer the obligation to other parties fulfilling requirements to be B3 waste manager.¹³

Scientifically, there are some basic aspects that needs to be understood in B3 waste management concept. Based on the process, the waste management may be done in physics and chemical aspect, stabilization/solidification, and inseneration.¹⁴ The management process through physics and chemical aspect is aimed to reduce the toxicity of the B3 waste, and to lose the danger nature of the waste into a non-dangerous waste.¹⁵ The process of stabilization/solidification is aimed to change the physical and chemical characteristic of the waste by ways of adding compounds binding the B3 waste so as to inhibit the movement of the B3 compound and to create monolite mass with solid structure. The process of inseneration is aimed to destruct the B3 compound inside the waste, so that the waste does not have any B3 compound in it.¹⁶

On the other hand, the concept ‘from cradle to grave’ in waste management surveillance is defined as the need of hierarchy of waste management providing guidelines on the steps of management from the most prioritized until the least. The application of this principle is aimed to lessen the amount of waste significantly from the source until the landfill.

The steps in the hierarchy of waste management start from the step of waste avoidance/waste prevention, to avoid the production of waste (to achieve zero waste).¹⁷ This effort can be done

⁸ Declaration created in the *United Nation Conference on Human Environment and Development* year 1992 in Rio de Janeiro Brazil.

⁹ Some basic aspects that needs to be considered in the application of this principle are: the existence of precaution when faced with scientific uncertainty; the existence of exploration to alternative efforts that may be applied when danger threats appear; reversed burden of proof to the business actors; and the need for a democratic and transparent process in the application of this principle, including public rights to information. As such, this principle can be translated into the need to conduct measures to prevent danger if an activity, technology, or substance could entail danger. If we were to wait on scientific certainty, there may be losses or victims and the damage may be harder to restore. This principle is relevant with the polluter pays principle or precautionary principle which is a basic point in prevention of environmental damage. This also becomes the rationale of the importance of environmental standard over a business plan before it is conducted. This is also a form of environmental law regulation important in the regime.

¹⁰ Polluter pays principle by *letterlijk* meaning is defined as anyone that is conducting business activities and damaged the environment will have to pay the cost for environment restoration. In a more advanced concept, this concept is directed to the internalization of costs to restore environment that may be incurred in the production cost paid by the business actor.

¹¹ ‘From cradle to the grave’ is the concept wherein the prevention of B3 waste’s repercussions starts from the production of the waste until the hoarding. In this consideration, attention to B3 waste is also attached when it is still in material stage, wherein every B3 material needs to be paid attention of its characteristics (materials data sheet).

¹² Article 59 point (1) Law Number 32 of 2009 on the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

¹³ Article 59 (3) Law number 32 of 2009 on Protection and Management of the Environment (State Gazette year 2009 number 140, Additional State Gazette Number 5059).

¹⁴ Setiyono, 1999, *Sistem Pengelolaan Limbah B3 di Indonesia*, Direktorat Teknologi Lingkungan BPPT, Jakarta, pp. 24-35.

¹⁵ *Ibid.*

¹⁶ Ministry of Environment Regulation Number 30 of 2009 on Mechanism of Permit and Hazardous and Toxic Waste Management and the Supervision of Rehabilitation of Hazardous Waste Pollution by Regional Government.

¹⁷ Setiyono, 1999, *Op.cit.*

through the application of clean production principle, which is to apply clean technology, to manage substance, substitute substance, regulate the activity operation, modify production process, promotes the use of non-dangerous materials or less-dangerous materials, apply conservation techniques, and reuse materials instead of processing it as waste to avoid the production of waste and pollutants.¹⁸

The second step is done through making efforts to minimize or reduce waste. This minimization effort can also be done through the application of clean production. The usage of best available technology can help reduce energy and natural resources consumption significantly, which eventually would reduce waste production.¹⁹

The third until the fifth step emphasize on the re-utilization of B3 waste. The third step is done through reusing of waste, which is to use the waste for the same purpose without adding any physical, chemical, biological, or thermal compound. The fourth step is done through recycling the useful components in the waste by adding chemical, physical, biological, or thermal compound that may result to an identical or different product. The fifth step is the utilization of waste by recovery, meaning to regain the useful components in the waste by chemical, physical, biological, or thermal process. The sixth step is to process the waste with methods safe for humans and environment.²⁰

The existence of multiple conflicts in the steps of B3 waste management is what fuels the need to have a comprehensive regulation. The details on the regulation of B3 waste management is now renewed

through Governmental Regulation number 101 of 2014, which outlines that even though the polluter is of the burden of responsibility, it may hire outside services to help waste management. The obligation of permits as a repercussion controlling instrument is attached to every forms of activity, which states that the storage, collection, utilization, processing, and hoarding of the B3 waste needs to have operating permits.

This chain concept of obligation and responsibility is linked to the approach of B3 waste management as a system, and to the principle 'from cradle to grave' aforementioned. Under these considerations, in practice, the documents for permits and manifests of B3 waste management is usually made in several copies,²¹ so as to make sure the documents are relayed not only to the waste receiver but also to the parties related in the process. Through this permit mechanism, the supervision of B3 waste management can be done in national scale. Even though on one hand there are shortage of B3 waste management companies certified nationally which is a downside to the waste management flow, the existence of the new B3 waste management governmental regulation gives high expectation on the national scale B3 waste management regulatory system.²²

The Governmental Regulation Number 101 of 2014 is the result long awaited, as in the post-promulgation period of UUPPLH 2009, the B3 waste management still uses old regulation that is Governmental Regulation number 18 of 1999 *jo.* Governmental Regulation number 85 of 1999.²³

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ Governmental Regulation Number 18 of 1999, the previous Governmental Regulation on B3 waste management, it is stated specifically that the manifests of B3 waste transfer document is made in 7 (seven) copies for one transportation mode, and 11 (eleven) copies for two or more transportation mode. This is re-emphasized in several of the regulations.

²² With 259 Articles, including transitional rules and concluding rules, and the existence of multiple annexes, the Governmental Regulation on B3 waste management gives high expectation on a clearer and more comprehensive rule on B3 waste management. The detailed rules on B3 waste management encompasses aspects on the determination of B3 waste; reduction of B3 waste; storage of B3 waste; collection of B3 waste; transfer of B3 waste; utilization of B3 waste; processing of B3 waste; hoarding of B3 waste; dumping of B3 waste; exceptions of B3 waste; transfer of boundaries in B3 waste; counter of environmental damage and/or pollution and restoration of environmental function; emergency response system in B3 waste management; education; supervision; funding; and administrative sanctions.

²³ This discussion does not compare between the old and new governmental regulations. Aside from the fact that there are already numerous discussions on the governmental regulation on B3 waste management, the Governmental Regulation Number 101 of 2014 is more centralistic in its waste management, thus needing its own elaboration.

Generally, the primary changes included in the new governmental regulation is a more detailed and complete regulation on: (1) The existence of heavier sanctions;²⁴ (2) The types of waste categorized as B3 waste, with the existence of regulation on new waste as B3 waste;²⁵ (3) The emphasize on alignment concept in B3 waste management;²⁶ (4) The emphasize on the obligation of B3 waste management from start to finish;²⁷ (5) The inclusion of the technical and scientific phrases in the practice of B3 waste management;²⁸ and (6) The existence of a more detailed regulation on the shift of B3 waste boundaries.²⁹

2. Administrative Sanction In B3 Waste Management

The mechanism of supervision in administrative law obligations such as documents for environmental standard is done by the government, both central and regional, through environmental bodies. The office with power to oversee the administrative obligations is already laid out clearly, which are the Environment Supervisory Officials (PPLH) and Regional Environment Supervisory Officials (PPLHD).

Taking into account the characteristics of the environment, the enforcement of administrative

law could well be the most important effort of enforcement. This is so because enforcement of administrative law is more aimed towards avoiding damage to the environment, and could be means to impose sanction for polluters.³⁰

However, the effectiveness will be reflected when brought back to the basic principle of environmental law enforcement that is the effort to reach compliance and conditions in general and individual regulations. The foremost mechanism of this would be supervision and application. The application of administrative sanction as an environmental law enforcing mechanism has two functions. The first function is preventive function, when linked to the permits given by the officials to the business actors, wherein this permit shall follow conditions prescribed, both administratively and technically.³¹ Aside from that, the existence of an obligation to help and provide technical consultations for environmental bodies in the process of permitting also plays a role in preventing future problems. Here is where the role of central government as the permit issuer shows, as permits are a legalization of activities with possibility of repercussions to the environment. When this permitting process is stalled or problematic, the

²⁴ Governmental Regulation Number 101 of 2014, administrative approach is prioritized with a quite detailed explanation. Meanwhile, the effort to enforce criminal law has been outlined in UUPPLH, that each person is obliged to conduct B3 waste management and based on permits. Violation of this rule is punished by imprisonment of at least 1 (one) year and at most 3 (three) years, with fine (accumulative) of at least 1 (one) billion rupiah, and at most 3 (three) billion rupiah. See rules in Article 102 and 103 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

²⁵ Annex of Government Regulation Number 101 of 2014 adds quite a number of waste types into B3 waste category.

²⁶ Government Regulation Number 101 of 2014 includes integrated steps in B3 waste management without reducing the portion of liability of B3 waste producer over the waste it processed, even though the management is given to another party. This is the basis of the basic principle in determining liability of B3 waste management. In its development, both in UUPPLH and in rules concerning the obligation of EIA (AMDAL) such as Ministry of Environment Regulation number 5 of 2012 on Types of Activities Obligated to Have AMDAL, the liability of B3 waste management is limited in its power and obligation based on location of processing (whether it is done in the activities site thus needing transportation) and the method of processing (whether by physics, chemical, biological, or other methods).

²⁷ Corporates producing B3 waste is obliged to be responsible from the producing of B3 waste until the abolition (from cradle to grave) by conducting internal management correctly and making sure third party responsible for waste management fulfills regulations and is competent.

²⁸ See e.g. in Article 1 Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

²⁹ In Article 196 Government Regulation Number 101 of 2014 it is stated that in cases where B3 waste is going into Indonesian territory for transit purposes, B3 waste producer or B3 waste transporter through B3 waste exporter state needs to lodge a notification request to Indonesian government through the Minister, at least 60 (sixty) days before transit is conducted.

³⁰ In accordance with Articles 76 – 78 Law number 32 of 2009 on Protection and Management of the Environment, administrative sanctions are the legal consequences arising from central and regional government's obligation to supervise violation of environmental permits. Environmental permits according to UUPPLH are the primary administrative proofs over a business' standard to gain business permit. Not only that, UUPPLH also emphasizes on secondline enforcement which gave possibility for the Minister to apply administrative sanctions directly if it deems that the regional government intentionally retain administrative sanctions for serious violation in environmental management (Article 77 Law number 32 of 2009 on Protection and Management of the Environment).

³¹ Laode M Syarif and Andri Wibisana (eds), 2013, *Hukum Lingkungan: Teori, Legislasi, dan Studi Kasus*, E2J Publication, Jakarta, p. 498.

consequence would burden the business actor and or business activities.

The second function is repressive function, when the sanction is applied and given by the officials to the business actors to prevent or stop violation.³² This sanction can be in form of a written warning, or government imposition to conduct rehabilitation or compensate the environmental loss, until permit revocation. This function will reflect that administrative sanction, if applied correctly, can be an effective and efficient solution. Aside from that, administrative sanctions can be a win-win solution, as the business actors can still conduct its business while at the same time solve the environmental problems he/she caused.

Of course, the application of this administrative sanction will depend on the weight of the environmental regulation's violation which may vary, from violations of administrative conditions to violations that may entail victims. Preventive law enforcement also means to actively supervise legal compliance without having a concrete occurrence showing that the law has been violated. Administrative sanctions in the management of B3 waste is specifically regulated as a form of law enforcement for violations related to the obligation to store B3 waste³³ which has to be based on a B3 management permit;³⁴ the prohibition to combine stored B3 waste;³⁵ lateness on B3 waste management permit continuation request;³⁶ the

obligation to change permits in cases where there are changes in ownership, design, or capacity of B3 waste management;³⁷ violation in fulfilling the obligation of B3 waste management permit holder such as environmental standard, maximum time of storage, or obligation to report;³⁸ obligation to utilize, process, hoard, and/or transfer of B3 waste management to third parties after storage time has passed;³⁹ and violations of obligation to restore environmental functions.⁴⁰

The administrative sanctions regulations in Governmental Regulation Number 101 of 2014 on Waste Management and Toxic Material is quite clear by the existence of specific regulations outside of UUPPLH. Administrative sanctions that can be imposed includes written warnings once in at most 14 (fourteen) days, governmental imposition to among others temporarily stop activities to stop violation and restore environmental function, permit freeze, and B3 waste management permit revocation in accordance with the hierarchy of B3 waste manager (polluters to processors).⁴¹

3. Damages And Compensation In B3 Waste Management

In environmental law regime, the matters on damages and private legal liabilities is broadly and clearly outlined, both the scheme of the liability and the possible mechanism to claim damages. In UUPPLH, it is stated that generally damages are based on private responsibility.⁴² As such in this

³² *Ibid*, p, 499.

³³ Article 12 point (1) Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

³⁴ Article 12 point (3) Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

³⁵ Article 12 point (2) Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

³⁶ Article 21 point (2) overnemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material obliging to file B3 waste storage permit continuation request at the latest 60 (sixty) days.

³⁷ Article 22 point (1) GR 101/2014 in which the request to change permit is obliged to be filed at the latest 30 (thirty) days after the change (section 2).

³⁸ Article 28 point (1), (2), and (3) Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

³⁹ Article 29 Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

⁴⁰ Article 30 point (1) and (2) Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

⁴¹ Article 243 - 253 Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

⁴² Article 87 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

sense, it will be related to the application of Article 1365 of Civil Code, which is private liability based on fault (wrongful act). In this liability based on fault scheme, the main element that needs to be proven is of course fault of the person before compensation or damages may be asked of him/her. The burden of proof is attached to the plaintiff claiming for damages to show one's fault, concrete losses, and the causality between the fault and the loss. In environmental practice, this is quite burdensome for the plaintiffs which felt the losses due to the burden of proof to show concrete causality between the fault and the loss.

Based on this particular reasoning, strict liability concept is applied. Strict liability in UUPPLH, as also stated in the previous law, is phrased as "*tanggung jawab mutlak*" (literal: definite responsibility).⁴³ By phrasing, this would create misunderstanding if we look at the absolute liability concept which also exists in environmental law regime. Absolute liability, if translated literally, would burden liability without exceptions, to the extent that all losses created is compensated or restored. Absolute liability is commonly applied in nuclear technology management and outerspace activities.

Article 88 of UUPPLH clearly states that everyone whose actions, business, and or activities uses B3, produce and/or manages B3 waste, and/or create serious threats to the environment, will be responsible definitely over the losses without having to prove element of fault. From this understanding, the strict liability concept puts forward the effort to restore damages created, as opposed to proving one's fault. Burden of proof is attached to the operator or business actor. Put simply, strict liability is attached to every parties whose activities may have repercussions to environment and human

health. In UUPPLH, it is clearly outlined that every business activity possessing high risk for the environment, using hazardous and toxic materials, and producing B3 waste will be liable strictly over the losses entailed.⁴⁴

Indeed, as the concept differs from common private law (liability based on fault), often times the law enforcers do not know or puts forward the Civil Code more than the environmental law regime. There are also times when the two are combined together, by having strict liability but with burden of proof given to the plaintiff as party bringing claim.

This strict liability does not then entail that the parties are fully responsible without any boundaries. There are three main exceptions to this liability, which are: 1) acts of God or natural disasters; 2) unforeseen circumstances or *force majeure*; and 3) third party liabilities.⁴⁵ When one of the three is proven, liability is not of the obligation of the business actor. As has been previously mentioned, the mechanism to claim damages in environmental law is quite various, as it gives possibilities to not only the concrete injured party, but also organizations moving in environmental law sphere and governmental institutions responsible for the environment.

Mechanism for people who are direct victims are through class action.⁴⁶ This class action is made possible in cases where there are identical facts or incident, legal basis, or type of the lawsuit. The number of the people included as class members will affect effectivity of the trial. The regulation on this class action is quite clear, since it has been applied for quite a long time along with the promulgation of Law number 23 of 1997. The details of the law's application is included in Supreme Court Regulation number 1 of 2002.

The next mechanism is given to environmental

⁴³ Article 88 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁴⁴ Elucidation of Article 88 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁴⁵ Munir Fuady, 2005, *Perbuatan Melawan Hukum: Pendekatan Kontemporer*, Citra Aditya Bakti, Bandung, p. 135.

⁴⁶ Article 91 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

organizations through the right for environmental organization suit, which is aimed for environmental conservation interests. The primary claim that can be filed is claim to conduct certain actions in form of environmental restoration (injunction) without compensation, except for the costs or real expenses.⁴⁷ The main criteria that needs to be fulfilled in the filing of this claim is: the organization has to be a legal entity working in environmental sphere as written in their Articles of Association, and has been active in such sphere for at least 2 (two) years.

The newest addition that is included in UUPPLH is the right for government to sue, both regional and central, to claim compensation and certain actions to the business actors.⁴⁸ The environmental losses meant by this particular rule is the ones caused by pollution and/or environmental damages that is not private ownership. Certain actions are meant as actions to prevent and counter the damages to the environment, and restore environmental function to guarantee the reappearance of this negative impact.

In this main regulation of the right for government to sue, it is made clear the mechanism of damages for environment arising from administrative law violations, such as the mismatch of the environment management activities with the environmental standard document or the incorrectness of the result of B3 waste management, creating losses for the environment in forms of pollution or environmental damage.

4. Criminal Law Enforcement In Waste Management and Toxic Material Management (B3 Waste Management)

On the 7th UN conference in 1991 on The Prevention of Crime and the Treatment of Offenders, the conference outlines the forms and dimensions of

crimes towards development, crimes towards social welfare, and crimes towards environment quality.⁴⁹ These three forms of crimes are interrelated closely, as these three cannot be divided. The conference stated that ecological/environmental crimes includes as follows:⁵⁰ (a) Crimes impinging on the quality of life; (b) Crimes impinging on the material well-being of entire societies; and (c) Crimes having a negative impact on the development efforts of nations. Meanwhile, Daud Silalahi stated that environmental law enforcement in Indonesia includes compliance and enforcement.⁵¹ As such, national environmental law enforcement includes: (a) Law system enforcement; (b) Decision on cases that needs to be prioritized; (c) Strengthening law enforcers' skills; and (d) Re-supervision of Law on Perturbation.

These four points are still very much relevant, taking into account that some of the very basic problems in criminal law enforcement especially relates to the enforcer. The problems in environmental law enforcement are quite crucial, keeping in mind that there are still a rarity of law enforcer that is able to position a criminal law case into an environmental law sphere. There are many reasons surfacing for this, from the absence of knowledge on environmental laws, to the burden of proof that is generally more difficult in environmental cases. This of course becomes an irony, especially if we look at how the principle of legal certainty intends for law to always be enforced in whatever situation (*fiat justitia et pereat mundus*; even if the world falls apart law still needs to be enforced).

In environmental law, there are applications of criminal sanctions which are generic crimes and specific crimes.⁵² This differentiation does have a

⁴⁷ Article 92 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁴⁸ Article 90 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 5059).

⁴⁹ Barda Nawawi Arief, 1991, *TPLH dan Masalah Pertanggungjawaban Pidananya Menurut Hukum Positif Indonesia, disampaikan pada Penataran Hukum Pidana dan Kriminologi dalam Rangka Kerjasama Hukum Indonesia-Belanda, Makalah*, Bandung-Ambarawa, 2-20 Desember 1991, p. 169.

⁵⁰ UNODC, "Environmental Crime: Trafficking in Wildlife and Timber", <http://www.unodc.org/toc/en/crimes/environmental-crime.html>, accessed on 20th December 2016.

⁵¹ Daud Silalahi, 2010, *Hukum Lingkungan dalam Sistem Penegakan Hukum Lingkungan Indonesia*, Alumni, Bandung, p. 13.

⁵² Mas Achmad Santosa. 2001, *Good Governance dan Penegakan Hukum Lingkungan*, ICEL, Jakarta, p. 54.

dependency on administrative law enforcement. Material delicts (generic crimes) emphasizes on the repercussions of a wrongful act that is environmental damage. The application of this delict does not always have to be linked to administrative laws, thus is dubbed 'administrative independent crimes'.⁵³ On the other hand, formal delicts (specific crimes) emphasize on the act without having to fulfill the element of repercussions caused by such act. This formal delict can be applied with just fulfilling the elements included in the regulation, thus is dubbed 'administrative dependent crimes'.⁵⁴

The consequence of this formal and material delicts is the application of subsidiarity principle (*ultimum remedium*), wherein criminal sanctions are applied as the most final sanction (*ultimum*) when administrative sanctions and private suit are found ineffective. In Law number 23 of 1997, this *ultimum remedium* is put forward, keeping in mind that pollution can only happen when there are changes in environmental function. Nevertheless, there are significant changes in Law number 32 of 2009, which is more oriented towards *premium remedium*, wherein criminal sanctions can directly and immediately be applied without taking into account administrative sanctions and private suits. This is shown by the fact that most of the criminal sanctions regulations are formal delicts, and there is only one article in the law mentioning the principle of *ultimum remedium* that is Article 100 UUPPLH, which reads:⁵⁵

- (1) *Setiap orang yang melanggar baku mutu air limbah, baku mutu emisi, atau baku mutu gangguan dipidana, dengan pidana penjara paling lama 3 (tiga) tahun dan denda paling banyak Rp3.000.000.000,00 (tiga miliar rupiah).*

- (2) *Tindak pidana sebagaimana dimaksud pada ayat (1) hanya dapat dikenakan apabila sanksi administratif yang telah dijatuhkan tidak dipatuhi atau pelanggaran dilakukan lebih dari satu kali.*

In relation to B3 waste management, there are emphasizes which acts also as a closing gap for one rule to another. This is shown in Article 102 and 103 of UUPPLH. Article 102 states that everyone conducting B3 waste management without permit is punished with imprisonment of minimum 1 (one) year and at most 3 (three) years and fine of minimum Rp 1.000.000.000,00 (one billion rupiah) and at most Rp 3.000.000.000,00 (three billion rupiah).⁵⁶ Meanwhile, Article 103 of UUPPLH states that everyone producing B3 waste and not conduct its waste management is punished with imprisonment of at least 1 (one) year and at most 3 (three) years, and fine of at least Rp 1.000.000.000,00 (one billion rupiah) and at most Rp 3.000.000.000,00 (three billion rupiah).⁵⁷

This rule clearly shows that correctness and appropriateness of the application of administrative law in the government's part is highly crucial. This is so as both articles showed that in cases where trouble arises from permitting level, business actors can still be imposed with criminal sanctions. The rules in UUPPLH is different with the rules in the previous law, in which the previous law is leaning more towards material delicts, and thus the element of damage to the environment has to be proven first before applying criminal sanctions.

Another further specifications in environmental law enforcement is corporate responsibility. The Law number 32 of 2009 outlines that if the environmental crime is conducted by, for, or under the name of a corporation, the criminal sanction

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ Article 100 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 505).

⁵⁶ Article 102 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 505).

⁵⁷ Article 103 Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 505).

will be imposed to: (a) legal entity;⁵⁸ and/or (b) the person giving order to conduct such crime or the person in charge as the head of the criminal act.⁵⁹

This corporate approach is not only attached to the existence of hierarchical working relationship in a corporate, but also when it relates to certain work included in the corporate's sphere. This is laid out in Article 116(2) of UUPPLH, which states that if the crime is conducted by an individual whom based on a working relationship or other relationship acts in working sphere of the corporate, criminal sanctions will be imposed to the orderer or the head of the criminal act, without paying attention to whether the crime is conducted alone or collectively.⁶⁰ The criminal sanction for corporates is compounded with a third of the normal sanction, both fine and imprisonment.

C. Conclusion

In accordance with the phrasing, waste from business activities are given status of Hazardous and Toxic (B3) if they possess such characteristics, concentration, or amount as to be able to damage or pollute or danger environment, health, and human

and other creatures' lives.⁶¹ B3 waste that is directly thrown away to environmental media may inflict danger to the environment or human or creatures' lives.

Taking this risk into account, a structure of regulation is needed so that every business activities produce B3 waste as little as possible with an integrated effort, and to prevent B3 waste coming from regions outside Indonesia. Integrated management of B3 waste regulates on interrelatedness of every aspect of B3 waste management, which are the acts of storing, collecting, moving, processing, utilizing, and hoarding B3 waste. From the aforementioned elaboration, it is shown that through the UUPPLH environmental law regime, an integrated regulation of B3 waste management chain is detailed in Governmental Regulation number 101 of 2014. This Governmental Regulation has regulated on the legal obligation for every parties in the chain of B3 waste management which are: producer, collector, mover, utilizer, processor, and hoarder of the B3 waste. The question that needs to be considered now is the application of the rule and the enforcement of the law.

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⁵⁸ Article 118 Law Number 32 of 2009 regarding the Protection and Management of Environment it is further explained that criminal sanction is given to corporations represented by authorized persons to represent in and out of trial in accordance with the law as functional actors.

⁵⁹ Article 116 (1) Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 505).

⁶⁰ Article 116 (2) Law Number 32 of 2009 regarding the Protection and Management of Environment (State Gazette of the Republic of Indonesia Year 2009 Number 140, Supplement of State Gazette of the Republic of Indonesia Number 505).

⁶¹ Article 1 Governemnet Regulation Number 101 of 2014 on Waste Management and Toxic Material (State Gazette of the Republic of Indonesia Year 2014 Number 333, Supplement to State Gazette of the Republic of Indonesia Number 5617).

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