

LEGAL POLITICS ON FLY ASH BOTTOM ASH WASTE CONVERSION INTO NON-B3 WASTE AFTER LAW NUMBER 11 OF 2020 CONCERNING JOB CREATION IN INDONESIA

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Abstract: *Regarding the implementation of environmental protection and management, notably with regard to non-B3 trash, PP No. 22 of 2021 makes significant changes. Under appendix XIV of PP No. 22 for the year 2022, mining waste in the form of fly ash and bottom ash (FABA) is no longer categorised as hazardous and toxic waste (B3). Although it is recorded with the waste codes N106 for fly ash and N107 for bottom ash, it is still categorised as non-B3 waste. In this case, the government has loosened the regulations by removing coal ash from the B3 waste list rather than strengthening control and levying fines on the management of coal ash from power plants, which would lower the risk of exposure. Many impacts result from the conversion of FABA waste to non-B3 trash. Before PP No. 22 of 2021, FABA was classified as B3 trash, which had stricter waste management standards and procedures. This makes one of them a corporate criminal liability. The government is blamed for not performing adequate oversight, applying the law correctly, and managing environmental contamination that has an impact on public health. As a result, to avoid FABA pollution from lowering environmental quality, current regulations must be reinforced and made more preventative, based on the precautionary principle.*

Keywords: *FABA, Non-B3 waste, Omnibus Law.*

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Introduction

Many provisions of Law No. 32 of 2009 concerning Environmental Protection and Management have been altered, removed, or stipulated by Law No. 11 of 2020 on Employment Creation of Environmental Clusters. This has led to the creation of a number of derivative rules, one of which is Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management, which modified a number of provisions under Government Regulation No. 101 of 2014 concerning B3 Waste Management. Fly ash and bottom ash trash, often known as FABA, will no longer fall under the category of hazardous waste and will instead be classified as non-hazardous waste under Government Regulation No. 22 of 2021 (Non-B3).

In the context of burning a substance that often produces ash, the terms "Fly Ash" and "Bottom Ash" are used to describe relatively heavy fly ash and light fly ash, respectively. The ash from burning coal is this. FABA is listed as "Non-B3 Registered Waste" in Annex XIV Government Regulation No. 22 of 2022 with waste codes Fly Ash N106 and Bottom Ash N107. Waste from coal combustion facilities at coal-fired power plant facilities or from other operations involving technology other than boiler stockers and/or industrial furnaces is referred to as FABA and is categorised as Non-B3 waste.

Due to the fact that industrial plants and fossil fuel power plants emit dangerous air pollutants while they are functioning, this led to agitation from a variety of parties, especially environmental activists. Pollutants that circulate in the atmosphere, such as NO_x, SO₂, particulates (PM), and mercury (Hg), are harmful to human health because they increase the risk of heart attack, stroke, asthma attacks, respiratory infections, and chronic obstructive pulmonary disease. According to data from the Center for Research on Energy and Clean Air (CREA) that was finished in August 2020, Indonesia has 74 steam power plants (PLTU Batubara), which is the most in Southeast Asia. For the past ten years, NO₂ concentrations have risen in Banten, West Java, and southern Lampung. At Jepara, the development of coal-fired power facilities led to a notable rise of NO₂. Within 100 km of the administrative border of Jakarta, there is a coal-fired steam power plant with a capacity of 7600 megawatts (MW), and another 6000 MW is still being developed. It is currently the largest source of stationary emissions, surpassing every air space in the capitals of every other nation. However, the air pollution quality regulations that are applied to these plants are quite lax, permitting 10-20 times more air pollution than the ideal requirements (such as in China, the European Union, Japan, or South Korea). (Research on Energy and Clean Air Center, 2020)

Coal is still a valuable commodity in Indonesia. Despite experiencing a slight decline in 2020, coal production recovered, continuing the current upward trend from 461 million tons in 2015 to more than 600 million tons in 2021. This production level far exceeds RUEN's target of 400 million tons per year (IESR Institute for Essential Services Reform, 2022). The production and use of fossil fuels must rise in order to fulfil expected demand in the energy, transportation, industrial, and commercial sectors, notwithstanding efforts to expand renewable energy. Unhealthy air quality will continue to deteriorate unless stricter quality regulations and procedures are created and put into place. It is seen as efficient in terms of the coal economy, but the issue is that FABA waste from coal processing is a significant health danger. When harmful substances are discharged into the atmosphere as a result of burning coal, the result is poisonous. The impact of inhaling these harmful substances is also very dangerous because it can trigger asthma, lung cancer, respiratory infections, congestive heart failure to stroke (Gasparotto & da Boit Martinello, 2021).

The KPK has also backed the decision under the guise that doing so will prevent potential corruption in the licencing sector, the cost of PT PLN's electricity generation products has decreased, and FABA's potential benefits for other industrial sectors with an estimated value of IDR 300 trillion can be realised. Despite these arguments, the government maintains that FABA is not dangerous. (Rahma, 2021) .

In this regard, the government loosened the restrictions by eliminating coal ash from the list of B3 waste rather than tightening up the enforcement of supervision and sanctions for coal ash management from plants. However, regarding this policy, the government argues that there is nothing dangerous about FABA, the decision is also supported by the KPK under the pretext that the removal of FABA can avoid potential corruption from the licensing sector, the cost of PT PLN's electricity generation products has decreased and the potential benefits of FABA for other industrial sectors with an estimated value of IDR 300 trillion can be realized. (Rahma, 2021) . Many arguments in favour of and against this policy are being made. In order to determine Indonesia's readiness for realising and overseeing the change in FABA status, it is thought that a study on the urgency of changing FABA from B3 trash to Non-B3 waste is necessary.

1. Research Methods

The type of research used in compiling this legal research is normative or doctrinal legal research, that is, research based on legal materials that study primary and secondary legal materials, finding The truth of coherence, that is, whether there is the rule of law according to legal norms and whether there are similar norms of orders or prohibitions that are by legal principles, as well as actions (*act*), a person by legal norms (not just according to the rule of law) or legal principles (Peter Mahmud Marzuki 2021:47)

This legal writing is normative legal writing that is prescriptive. The approach used is the *statute approach*. The technique of collecting legal issues from this research is document study using legal material analysis techniques and syllogism method through deduction thinking patterns.



2. Results and Discussion

2.1 Comparison of Hazardous and Toxic Waste (B3) Regulations in Law No. 32 of 2009 with Law No. 11 of 2020

In addition to its great biodiversity and mining richness, Indonesia boasts an abundance of natural resources. Underneath this richness sits a significant problem that needs attention: the structure of Indonesia's environmental policy. One of the aims of the foundation of the state and the establishment of state governance is to advance the general welfare, according to the preamble of the Constitution of the Unitary State of the Republic of Indonesia of 1945. The 1945 Constitution grants the state the sole authority to regulate the environment and natural resources, a power known in the legal community as the right to control the state, in order to promote this common welfare. The state rights control and the welfare of the people as stated in Article 33, paragraph 3 of the 1945 Constitution, which states that *"The earth, water and natural wealth contained therein are controlled by the state and used as much as possible for the welfare of the people"*. (Verdinand Robertua Siahaan, 2020). States have a responsibility to put the interests of the people before those of the market since they are a welfare state. As a result, the Constitution must be coherently expressed in all laws, policies, and even budgets. Law Number 32 of 2009 concerning Environmental Protection and Management is one of many regulations that have been established based on the right to control the country to realise the welfare of the people. Its existence is expected to be a reference material in preventing environmental pollution, cracking down on offenders, and providing the community with legal certainty.

Law Number 32 of 2009 contains many regulations for managing natural resources in a sustainable and environmentally sound manner as required by the 1945 Constitution of the Republic of Indonesia. According to Article 1 Number 22 of Law Number 32 of 2009, which deals with the effects of hazardous and toxic compounds, also known as B3 Waste, B3 trash is the leftovers from a business and/or activity that contains B3. The B3 waste in question is any substance, energy, or another element that, because of its composition, concentration, or quantity, directly or indirectly, can harm the environment, contaminate human health, or jeopardise the survival of humans and other living things. B3 Waste Management is regulated in more detail in Government Regulation Number 101 of 2014 concerning B3 Waste Management this regulation also lists a complete list of B3 waste from non-specific sources, B3 waste from specific sources, B3 waste from expired B3, spilled B3, B3 that does not meet product specifications and used B3 packaging. If a substance/compound is indicated to have the characteristics of B3 waste but is not listed in Appendix 1 PP 101/2014, it is necessary to conduct a characteristic test for identification. The characteristic test can be in the form of explosive, flammable, reactive, infectious and corrosive, and toxic Characteristics Tests as described in Appendix 2 PP 101/2014. Testing of toxic characteristics, for example, is carried out with TCLP or LD50 Toxicological Test. (Veronika Adyani, 2019)

According to Article 58 of the UUPPLH, anyone who incorporates into the territory of the Unitary State of the Republic of Indonesia, produces, transports, circulates, stores, uses, disposes of, processes, and/or hoards B3 is required to manage B3 due to its toxic nature and potential to pollute and harm the environment. B3 waste management is a set of actions that includes stockpiling B3 waste as well as reducing, storing, collecting, transferring, using, and/or processing B3 garbage. Additionally, it is specified in Article 59 that in the event that no one is able to manage their B3 waste on their own, administration of the waste is left to third parties. The minister, governor, regent, or mayor acting in accordance with their powers must provide approval for B3 waste management. The environmental conditions that must be satisfied and the commitments that B3 waste management must adhere to are listed in permits by ministers, governors, or regents/mayors.

Similarly, its criminal provisions have been regulated in Chapter XV of Law No. 32 of 2009. There is a new paradigm in the enforcement of environmental criminal law, especially in the application of the principle of *ultimum remedium*. General Explanation of Law No. 32 of 2009 explains that:

"The enforcement of criminal law in this Act introduces the threat of minimum punishment in addition to the maximum, expansion of evidence, a conviction for violations of quality standards, integration of criminal law enforcement, and regulation of corporate crimes. Environmental criminal law enforcement continues to pay attention to the principle of ultimum remedium, which requires the application of criminal law enforcement as a last resort after the application of administrative law enforcement is considered unsuccessful."

Applying the ultimum remedium only applies to certain criminal acts, namely the punishment of violations of wastewater quality standards, emissions, and disturbances."

Applying the principle of *ultimum remedium* (criminal enforcement as a last resort) only applies to certain criminal acts, in this case, Article 100 of Law No. 32 of 2009. Meanwhile, for criminal acts outside Article 100, the principle of *primum remedium* (prioritizing the enforcement of criminal law) applies. (Widyawati, 2015)

In general, the formulation of delinking in the PPLH Law consists of material and formal details. As for what is meant by the material criminal act is a criminal act that focuses on consequences, while the formal criminal act is a criminal act that focuses on action. (Hiariej, 2016) Material details in the PPLH Law are regulated in Articles 98, 99, and 112. As for the formal criminal act, it is found in 100-115. Generally, the main crimes in the PPLH Law are imprisonment and fines. The application of sanctions is cumulative and not an alternative, so the sanctions applied by both are not one of them. Then referring to Article 119 against business entities can be subject to additional criminal penalties or acts of order in the form of:

- a. deprivation of profits derived from criminal acts;
- b. closure of all or part of the place of business and/or activity;
- c. reparations resulting from criminal acts
- d. the obligation to do what is neglected without rights; and/or
- e. placement of the company under the custody of a maximum of 3 (three) years.

Law No. 32 of 2009 regulates Administrative Supervision and Sanctions in one Chapter, namely Chapter XII. Related to the administrative problems of B3 waste pollution perpetrators is contained in Article 243-253 PP No. 101 of 2014. In addition to administrative sanctions in the form of written reprimands, government coercion; or freezing of the B3 Waste Management permit for B3 Waste Storage activities, there are also criminal sanctions against perpetrators of hazardous and toxic waste pollution (B3) which are regulated in Law Number 32 of 2009 concerning Environmental Protection and Management, namely Articles 102, 103, 104, 105, 106, and 107.

Concerning its criminal liability, it is stipulated in Article 88 of the PPLH Law that

"Any person whose actions, undertakings, and/or activities use B3, produce and/or manage B3 waste, and/or pose a serious threat to the environment is responsible for the losses incurred without the need for proof of the element of error."

The phrase everyone in this case applies to natural persons or business entities, both incorporated and unincorporated. Meanwhile, what is meant as "without the need for proof of guilt" or *strict liability*, which means that the element of guilt does not need to be proven by the plaintiff as a basis for payment of damages. Referring to the explanation of article 88, this clause is a *lex specialized* in a lawsuit about unlawful acts in general. (Haryadi, 2017)

The wording "without the necessity for proof of the element of error" is removed from Article 88 and is substituted with "of its undertakings and/or activities," which reads as follows:

Any individual who "uses B3, results in and/or manages waste B3, and/or causes a major harm to the environment is accountable for the losses sustained from his/her business and/or activities," according to the law.

In its development, there are changes in the regulation of B3 waste, mainly due to the issuance of Law No. 11 of 2020 concerning Job Creation which revises several provisions contained in Law No. 32 of 2009, especially regarding B3 waste. One is removing the phrase "without the need for proof of the element of error". This elimination is a setback for law enforcement against a corporation that endangers the environment and can potentially hurt the Indonesian government's commitment to maintain and maintain environmental stability by endangering and harming the community. Because there are many factors behind the formation of laws establishing the use of strict liability in criminal law, including because (1) it is essential to ensure the observance of certain important regulations necessary for the welfare of society; (2) the proof of the men's *rea* would be difficult for the offense to be concerning the welfare of the community; and (3) relating to the high degree of social harm posed by the act in question. (Great Sri Utari, 2020) (Ali, 2020)

For B3 waste management, 2 derivative regulations have been issued from the Job Creation Law:

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1. Government Regulation No. 5 of 2021 concerning the Implementation of Risk-Based Business Licensing; and
 2. Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management.

When PP No. 22 of 2021 is put into effect, PP No. 104 of 2014 regarding B3 Waste Management is deemed invalid. Chapter VII of PP Number 22 of 2021 contains B3 waste management provisions, and it is well known that these regulations have undergone a number of significant adjustments. In PP No. 22 of 2020, the term "B3 Waste Management Permit" was changed to "B3 Waste Management Technical Approval," which governs technical permits that are divided into several environmental management media. For instance, technical approval of B3 waste management or technical approval of quality standard compliance. A technical permit is given for each management of an environmental medium, such as water, soil, or air, depending on its features. As a result, the idea of integration is only partially implemented by matching the words "permission" and "approval." However, on a practical level, the object of permission is still segmented into various environmental mediums that each have its permit qualifications. This directly gives preference that the concept of licensing still uses *single-medium permitting*. Thus, internal integration efforts idealized by the PPLH Law were abolished by the existence of the Ciptaker Law. (Baihaki, 2021).

Then there was the change of the phrase environmental permit to environmental approval. The definition of Environmental Approval has been stated in PP Number 22 of 2021: "*Environmental Approval is an Environmental Feasibility Decision or Statement of Environmental Management Ability that has received approval from the Central Government or Regional Government.*" In carrying out business activities, Environmental Approval is one of the basic requirements that must be met. This simplification is stated in Article 13 letter (b) of the Job Creation Law that the basic requirements in licensing business activities, one of which includes environmental approvals. (Devara et al., 2021)

Previously, environmental permits were issued using the *Licensed Approach*, also known as the "Regulatory Approach". As a result, all economic activities require permits, including the oil and gas industry, which requires 373 permits, and the power generation sector (IPP), which requires 29 permits (Sudarwanto & Charisma, 2020). The passage of the Job Creation Law and its accompanying rules ushered in a new method of environmental licensing known as *the Risk-Based Approach*. A risk-based approach is an approach to take into account the level of risk and will be a consideration for every action or effort made.

The potential for a threat to health, safety, the environment, the utilisation of natural resources, and/or other dangers that fall into the low, medium, or high category constitutes the risk level under the Job Creation Law. (See Article 7 explanation, paragraph 1) The risk is connected to activities or events that may occur, as opposed to the consequences that "certainly occur." As a result, there is a wide range in the likelihood that a danger will materialise. As a result, risk-based implementation in Indonesia faces several major challenges, including weak databases in Indonesia, lack of risk mapping studies, implementation of risk-based policies, plans, and programs from the government or local governments, and weak institutional issues. With a relatively high level of corruption and diversity of geographical and environmental conditions. (Saputra, 2021)

2.2 Comparison of Fly Ash Bottom Ash Waste Regulation in Law No. 32 of 2009 with Law No. 11 of 2020

Fly ash is a material that has a fine, grayish grain size, which in essence contains chemical elements including silica (SiO₂), alumina (Al₂O₃), peroxide (Fe₂O₃), and other auxiliary elements such as magnesium oxide (MgO), titanium oxide (TiO₂), alkaline (Na₂O and K₂O), sulfur trioxide (SO₃), phosphor oxide (P₂O₅) and carbon (Sri Prabandiyani Retno Wardani, 2008). In contrast, bottom ash is ash formed from the combustion process in the furnace heating furnace in the form of solids that are not carried away by flue gas in the Circulating Fluidized Bed (CFB) bottom ash system in the form of a mixture of coal ash, quartz sand, and fragments of furnace walls that are eroded during the combustion process. (Winarno et al., 2019) FABA has been classified as B3 waste in Indonesia since the establishment of PP No. 85 of 1999, which regulates the management of B3 waste, and its handling is regulated by a B3 waste regulation system. B3 waste management recognizes the concept of "*cradle-to-*

grave" or the concept that B3 waste management efforts systematically regulate, control, and monitor the course of waste from its formation to stockpiling in final handling, which means it is handled carefully from creation to destruction. The concept of *Cradle to Grave* involves identifying B3 waste and requirements ranging from source (generation), storage, transportation, processing, and disposal of B3 waste. This idea refers to a deliberate effort to ensure that the complete suite (subsystems) in each operational approach to B3 waste management runs smoothly. (Ratman & Syafrudin, n.d.)

According to PP Number 104 of 2014, the handling of B3 trash between parties must be accompanied by a manifest and requires separate permits for storage, collection, transportation, processing, and stockpiling. For the power plant that produces FABA, this is exceedingly challenging because the management costs skyrocket. As stated in PP No. 22 of 2021, a derivative of the Job Creation Law that replaces PP No. 101 of 2014, FABA was later eliminated from the B3 trash group throughout its development. FABA is created through the combustion process at the PLTU steam power production plant or from other activities that use technology other than boiler stockers and/or industrial furnaces, according to the annex to XIV, the exploitation of Non-B3 waste. It follows that FABA Non-B3 does not need any additional permissions because the non-hazardous waste management processes governed by PERMEN-LHK No. 19 of 2021 are not as complex as B3. Yet, there are still a few requirements for environmental approvals.

This then gave rise to the idea that the issuance of FABA from the B3 waste class was an unconstitutional act from the government because it violated Article 28H Paragraph (1) of the 1945 Constitution, where it was regulated that all Indonesians deserve a healthy living environment. The government is considered negligent in fulfilling its obligations to provide a healthy living environment for the community because the inclusion of FABA into the category of Non-B3 waste has relaxed the rules of its management. Although the exit of FABA from the B3 waste group makes it easier for the PLTU to manage and maximize its utilization, it needs to be underlined that there are microscopic particles (PM2.5) that Formed from sulfur, nitrogen oxide, and dust emissions from coal processing, these particles can penetrate the lungs and bloodstream, thereby causing death and Various health problems (Atmospheric Chemistry Modeling Group & Green Peace Indonesia, 2015)

Non-B3 waste management is nevertheless subject to regulations, they are only less stringent than those for B3 garbage. Non-B3 waste, storage p, non-B3 waste, non-B3 waste management, non-B3 waste management, non-B3 waste management is the subject of Article 3 of PERMEN-LHK No. 19 of 2021 concerning Procedures for The Management of Non-Hazardous and Toxic Waste. as a replacement for raw materials with requirements for environmental clearances, hoarding, the movement of Non-B3 garbage across international borders, as well as emancipation and reporting. Since FABA was still classified as B3 waste before PP No. 22 of 2021, which had tougher waste management rules and procedures, the shift in the status of FABA to Non-B3 waste undoubtedly has ramifications for corporate criminal responsibility. A number of issues also arise as a result of the regulations being loosened, including the ambiguity of the penalties for violating the law (Article 453 PP No. 22 of 2021), the lack of restrictions on the temporary storage of coal ash (Article 455 PP No. 22 of 2021), and the absence of restrictions on the use of coal ash (Articles 459-464). The provisions in PP No. 22 of 2021 are subject to a variety of potential infractions, including dumping without the central government's consent, open burning, mixing B3 waste with Non-B3 garbage, and hoarding. The perception of criminal punishments for non-B3 waste in landfills is insufficient to dissuade reckless people. From the perspective of criminal responsibility, businesses that violate FABA waste management are not subject to criminal penalties based on the provisions of B3 waste as they are outlined in Article 104 of Law No. 39 of 2012 regarding waste dumping, which states that anyone who dumps waste and/or materials into environmental media without permission as specified in Article 60, shall be punished with a maximum imprisonment of 3 (three) years and a maximum fine of Rp3,000,000,000.00 (three billion rupiahs). Thus it can be said that the removal of FABA from B3 waste will weaken the enforcement of criminal laws for companies that manage waste improperly.

Although the regulation related to the removal of FABA from B3 waste on the one hand can provide high economic value, on the other hand, it also enlarges the potential for pollution and destruction of the environment. This policy is far from the environmental justice and social justice that want the ideals of sustainable development. Other injustices can be seen from other aspects such as centralization efforts in terms of the licensing authority and administrative sanctions that are prioritized.

FABA exemption from B3 waste requires transparent studies, regular rigorous testing, and control mechanisms that periodically monitor FABA waste production sites. (Ibadurrahman, 2022) In this scenario, the removal of FABA from category B3 has allowed companies to handle it without a license or strict supervision. In this regard, the government is considered not transparent and ignores the precautionary principle by removing FABA from the B3 Waste category.

The government has not yet been successful in carrying out thorough oversight, successfully enforcing regulations, or controlling environmental contamination that has an impact on public health. Yet, the government appears to be attempting to penalise environmental crimes committed by business owners rather than improving and implementing prevention based on the precautionary principle. The case of Rusunawa Marunda is one of the most recent instances. Residents of Marunda Flats protested outside the Ministry of Transportation on March 14, 2021, charging port administrators with failing to control the coal dust-producing Flying Ash Bottom Ash industry (FABA). What happens in the Marunda Rusunawa area, and its surroundings are environmental degradation. This has become increasingly common since 2018-2019. The affected communities have also demonstrated at Marunda Port, but no solution has been reached, even though coal pollution (dust) in Marunda Flats has a significant impact on the health of residents, especially children, especially respiratory problems, skin irritation, and even children who have lost their eyes. (Saputra, 2022)

As a realisation of the precautionary principle required by Article 2 letter (f) of the PPLH Law, uncertainty regarding the impact of a business and/or activity due to a lack of science and technology expertise is not a justification for delaying measures to reduce or avoid threats to pollution and/or environmental damage. So that there is no decline in environmental quality as a result of FABA pollution, the current regulations must be strengthened and prevented based on the precautionary principle.

3. Conclusion

The Job Creation Law revises several provisions contained in Law No. 32 of 2009, especially regarding B3 waste. Upon the enactment of PP No. 22 of 2021, PP No. 104 of 2014 concerning B3 Waste Management is declared invalid. PP Number 22 of 2021 includes B3 waste management provisions in Chapter VII, and it is known that there are several fundamental changes to its provisions. Some of them are the removal of the phrase "without the need for proof of the element of error", which is replaced with "from its business and/or activities" which is a setback for law enforcement against a corporation that endangers the environment. The word "B3 Waste Management Permit" was changed to "B3 Waste Management Technical Approval" in PP No. 22 of 2020, which regulates technical permits that are separated in various environmental management media. Then there was a change in the phrase environmental permit to environmental approval, which gave rise to challenges in risk-based implementation in Indonesia facing several major challenges, including weak databases in Indonesia, lack of risk mapping studies, implementation of risk-based policies, plans, and programs from the government or local governments, weak institutional issues. with a relatively high level of corruption, and a diversity of geographical and environmental conditions.

Not all FABA is excluded from category B3, while based on the annex to XIV PP No. 22 of 2021 it is stated that FABA comes from the combustion process at the PLTU steam power generation facility or from other activities that use technology other than boiler stockers and/or industrial furnaces. FABA Non-B3 does not require any more permits because the procedures for managing non-hazardous waste regulated in PERMEN-LHK No. 19 of 2021 are not as complicated as B3, even though there are still standards that must be met in environmental approvals. There are many potential violations of the provisions in PP No. 22 of 2021 that can occur such as dumping which was initially because FABA was categorized as B3 waste, it was regulated by Article 104 of Law No. 39 of 2012 concerning waste dumping. However, the removal of FABA from B3 waste has implications for the inability to use these provisions, thereby weakening criminal law enforcement for companies that manage waste improperly.

4. Suggestion

The government has not yet been successful in carrying out thorough oversight, successfully enforcing regulations, or controlling environmental contamination that has an impact on public health. Yet, the government appears to be attempting to penalise the environmental offences that business

owners commit rather than improving and implementing prevention based on the precautionary principle. To implement the precautionary principle, existing rules must be tightened and prevention based on the principle implemented in order to prevent a decline in environmental quality caused by FABA contamination.

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[22] *Constitution of 1945*

[23] *Law Number 11 of 2020 concerning Job Creation*

[24] *Law Number 32 of 2009 concerning Environmental Protection and Management*

[25] *Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management*

[26] *Peraturan Pemerintah No. 101 of 2014 concerning B3 Waste Management*

[27] *PERMEN-LHK No. 19 of 2021 concerning Procedures for Managing Non-Hazardous and Toxic Waste PERMEN-LHK No. 19 of 2021 concerning Procedures for Managing Hazardous and Toxic Non-Hazardous Waste*