

## Analysis of the Explosion of the Pertamina Plumpang Depo in Review From Government Regulation No. 14 of 2015 Concerning the National Development Master Plan

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### Abstract

At present, industrial progress has been very rapid in various parts of the world, not to be missed in Indonesia. One of the industries engaged in Indonesia is oil and gas which is held by PT. Pertamina. The Pertamina Plumpang depot, where the oil is stored, has experienced two fires, first in January 2009 and also in March 2023 which spread to residents' settlements. The problem that was revealed after the plumpang incident was that the government could judge that the issuance of a building permit (*IMB*) was not the right decision, moreover the settlement is very close to the Pertamina depot which is at risk of fire hazard. This paper aims to provide an understanding of how this can happen and who will be responsible in this case based on Government Regulation number 14 of 2015 concerning the National Development Master Plan. This paper was prepared based on a descriptive qualitative research method, with a case study approach. It can be concluded that the second explosion of the Plumpang depot which caused many victims of residents was due to the finding of an inaccurate *IMB* grant.

**Keywords:** Industrial Revolution; Oil and gas; Pertamina; Depot; *IMB*.

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### Introduction

At present, industrial progress has been very rapid in various parts of the world, not to be missed in Indonesia. Currently, there are already various types of goods and services on offer. Looking back, the industry has undergone several evolutions pioneered starting with the industrial revolution 1.0, 2.0, 3.0, until now the industrial revolution 4.0. According to the McKinsey Global Institute, Industry 4.0 has left such a large and wide impact, especially in the field of employment, where machines and robots will eliminate most jobs in the world (Satya, 2018). Revolution can be interpreted as a complex change or a change in habits as a whole. For the industry itself has the meaning of an activity to benefit from the processing of raw materials or semi-finished goods. Therefore the industrial revolution has the meaning of changing the way humans work from its fundamental beginnings making it new things to be able to help human life. Aristotle argues that revolution has been distinguished into two types. First, revolution is an overall change from one system to a different system. Second, revolution is a modification of an existing system. Meanwhile, according to Soerjono Soekanto, revolution is a form of social change.

The industrial revolution started for the first time when the mechanism of production was delegated when a machine was invented, followed by the second industrial revolution, namely when large-scale production was carried out which was carried out in an integrated and standardized manner. In the third industrial revolution, it was at the stage of alignment being carried out en masse and already focusing on computer integrity. Continuing on the fourth industrial revolution can be interpreted as the presence of a collaboration between the internet and manufactures which results in a state of digitization. The Chancellor of Germany and Angela Merkel (2014) stated that the industrial revolution 4.0 is a complete transmutation of all production in the industrial sector through the combination of digital technology and the internet through conventional industries.

The purpose of holding the industry has been stated in Article 3 of Law no. 3 of 2014 concerning Industry including:

- a. Realization of national industry as the basis and initiator of the national economy;
- b. The realization of the depth and formability of the industry;
- c. The realization of an industry that is independent, competitive, advanced, and also a Green Industry;
- d. Realization of business clarity, fair competition, and also cutting down industrial centralization or domination by one group or individual that can burden citizens;
- e. The opening of opportunities for business also provides expanded employment opportunities;
- f. Realization of balanced industrial development in all Indonesian regions to tighten and strengthen national land defense; And
- g. Raising or advancing community peace by providing justice and peace.

One of the industries running in Indonesia is the oil and gas industry, while PT. Pertamina has a big stake in this field. Pertamina is an oil and gas company controlled by the state which was established on December 10, 1957 and was named PT. Pertamina. As is known, according to Article 2 letter I of Law no. 11 of 1967 concerning Mining, mining power is sovereign while it is intended for entities/individuals to carry out mining efforts. In 1971 based on Law no. 8 year 1971 Pertamina's role was regulated by the government to realize and produce oil and gas originating from oil mining areas and also to prepare fuel and gas needs for Indonesia, then in Law no. 22 of 2001 the level of Pertamina was changed by the government which made Pertamina the organizer of the Public Service Obligation (PSO) with business activities. PT. Pertamina is a state-owned enterprise with the most profit in Indonesia. This company plays a role in the oil and gas industry in the upstream and downstream sectors. In Article 5 of Law no. 22 of 2001 concerning Oil & Gas, it is explained that oil and gas business activities actually consist of:

1. Upstream Business Activities consist of:
  - a. Exploration
  - b. Exploitation
2. Downstream Business Activities consist of:
  - a. Processing
  - b. freight

The Indonesian state oil and gas mining company on June 18<sup>th</sup>, 2003 officially changed its name to PT. Pertamina (Persero) for PP No. 31 of 2003. On October 23<sup>th</sup>, Pertamina changed its legal status to become a *Persero*, "Becoming a Superior, Advanced and Reputable Company" is the vision of this oil and gas company. This business covers the exploration and production of both oil, gas, and also geothermal which is carried out locally and imported.

On July 20<sup>th</sup>, 2006, PT. Pertamina (Persero). "Becoming a World Class National Energy Company" is a refinement of the vision of this industry in 2011 which a year later this oil and gas company also expanded its activities. On December 14<sup>th</sup>, 2015, amendments to Pertamina's articles of association concerning maximizing the use of resources, escalation of invested capital and taking half of it by the state and the activities of the directors as required written agreement from the Board of Commissioners were approved by the Minister of BUMN as the GMS. This transition has been affixed to Deed No. 10 dated January 11 2016, through Notary Lenny Janis Ishak, SH. Furthermore, the Minister of BUMN as the GMS / RUPS in accordance with BUMN Decree No. S-690/MBU/11/2016, agreed on the transfer of Pertamina's articles of association relating to the components of the Board of Directors and the Board of Commissioners, authority on behalf of the President Director, the classification of duties and authorities of the Board of Directors, to the existence of the meeting of the President Director and the Board of Commissioners held on 24 November 2016.

In the course of the oil and gas business, of course, a storage area or stock storage terminal for fuel oil (*BBM*), hereinafter referred to as a depot, is needed. One of the Pertamina depots that will be discussed in this scientific paper is the Pertamina depot which is spread across the Jakarta area in the Plumpang area, where this depot stocks at least 20% of the daily fuel stock. The Pertamina Plumpang Depot is the topic of discussion at this time, this is also due to the fire at the Pertamina Depot which broke into residential areas and claimed lives. Then how this can happen and who will be responsible in this case will be discussed in this study based on Government Regulation No. 14 of 2015 concerning the National Development Master Plan.

Based on the explanation above, it can be found the formulation of the problem, in the form of:

1. How did the fire case occur at the PT. Pertamina Plumpang reviewed in Government Regulation No. 14 of 2015 concerning the National Development Master Plan?
2. Who will be responsible in the case of the Pertamina Plumpang Depot fire reviewed based on Government Regulation No. 14 of 2015 concerning the National Development Master Plan?

## **Materials and Methods**

In the development of science and technology, research is one of the ingredients. On this topic, empirical research methods are used, which have been defined by Amiruddin and Zainal Asikin. Empirical research is research that focuses on examining events or conditions of research objects in detail. A qualitative case studies approach is also used, namely studying a case and collecting data in detail for further analysis and presentation. The collection of data sources was obtained based on primary data, which is data received through the behavior of residents seen through research, which is then also supported through secondary data found through other references, one of which is a book. Even in this research, normative legal research is used, in this analysis it is based on primary legal materials, secondary legal materials, and also tertiary legal materials. In this case, an analysis is carried out of the problem that is currently being discussed, namely the burning case of the Pertamina Plumpang depot which has claimed lives.

## **Results and Discussion**

### **A. The Pertamina Plumpang Depot Fire Occurred**

Indonesia is one of many countries with oil and natural gas producers in the world, reserves of reserves which spread to almost all regions. The state controls natural resources

such as oil and gas, gold, copper, silver, coal and others controlled by and intended for the greatest prosperity of the people, which has been stated in Article 33 paragraph (3) of the 1945 Constitution, "Earth and water and natural wealth contained therein shall be controlled by the state and used for the greatest prosperity of the people". In essence, the goal of the state to control natural resources is to provide actual added power to the country's economy in an effort to gain prosperity and people's welfare in an equitable manner (Salim HS). Therefore, in this case Pertamina has been given the trust or authority by the government to manage natural and mineral resources with the aim of maximizing the prosperity of the people. In accordance with the sound of Article 3 of Law no. 5 of 1984 letter (a), "The purpose of development is to increase the abundance and well-being of the people or legal subjects in a fair and equitable manner by using capital, natural resources and/or the results of these natural resources, as well as observing or observing the equivalence and sustainability of the environment".

Until now PT. Pertamina is still running the oil and gas business in Indonesia. One of them is the biggest and widest supplier of fuel in Indonesia. Now Pertamina gas stations are widespread in Indonesia. In storing this fuel, Pertamina certainly has depots or terminals to store fuel oil supplies spread across Indonesia through its subsidiary PT. Pertamina namely PT. Pertamina Parta Niaga, here are some of them: Sumatra, Batam, Bangka Belitung, Java, Bali and Madura, Nusa Tenggara, Kalimantan and Sulawesi. PT. Pertamina in 1971 bought a land area of 153 hectares in the plumpang area from PT. Mastraco and in 1976 a letter of determination was issued by the Ministry of Home Affairs for the construction of oil installations. The Fuel Oil Depot in Plumpang began operating in 1974 and is still operating today. The oil and gas storage terminal which is part of the downstream sector is starting to operate properly. The building which was built in the Pertamina Plumpang depot area is divided into four locations, location A covering an area of 72 hectares, location B covering an area of 11 hectares, location C covering an area of 12.5 hectares and location D covering an area of 58 hectares which is called Tanah Merah. At the beginning of the construction of the depot in the Plumpang area, it was still an empty land dominated by swamps, so it was considered appropriate to build a Pertamina fuel oil depot. Because (CNN, 2023) building construction must meet safety standards for both workers and the environment.

However, starting from the late 1980s this area slowly turned into an area filled with residents, which was originally filled with lots of rubber trees in the Pertamina Plumpang depot area which became densely populated with residents and settlements. However, the settlement of these residents can be determined to be illegal at first. This is because those who live in this area do not have certainty of residence and also building permits.

The area around the Plumpang depot has experienced several problems, as happened in 2008, namely the occurrence of flooding in this area which also caused Jakarta to experience a shortage of fuel oil supply. Continuing in 2009, the Pertamina Plumpang depot area experienced a severe fire. The fire is known to originate from depot 24 which holds approximately 5,000 kiloliters of Premium Fuel Oil. The flames are estimated to have reached up to 100 meters, however, the flames were extinguished before they spread further into the residential area. This fire is also suspected to have been caused by human error, where the fire originated from friction between the measuring slot and the fuel sampling device. A fire in an industry is an event that can destroy property, lives, and disrupt the running of operational activities, disrupting the continuity and continuity of industrial activity which in turn causes an increase in financial losses that will be borne by the company (Rigen Adi Kowara and Tri Martiana, 2017). This fire has resurrected people's concerns about the scarcity of the supply of fuel oil (*BBM*), this is because fuel is one of the important aspects or drivers in the field of transportation and other trading businesses. The oil and gas industry has

a crucial contribution to Indonesia, as a source of income for the State Budget and contributes to the local economy in areas where exploration, production, refining and distribution of oil and gas activities take place (Nur Laila Widyastuti and Hanan Nugroho, 2020).

For years the local residents lived in a place that was considered illegal, until Jokowi was given an ID card by Jokowi as Governor of DKI Jakarta in 2012, 3 years ago since the Plumpang depot fire occurred. However, those who live in the *Tanah Merah* area still have difficulty obtaining legality to construct buildings in the area due to the absence of a building permit (*IMB*). Until not long after, in 2016 when the Governor of Jakarta, who was then assumed by Anies Baswedan, was replaced, he also gave *IMB* or Building Permits to *Tanah Merah* residents. The permits issued were in the form of an Area *IMB* which was given symbolically to the Representatives of the *Tanah Merah* residents, and it is known that the granting of an area permit was only the first time it had been carried out until then.

Even though the Government has a policy to regulate residents in its area, especially in terms of granting *IMB*, it must prioritize welfare, orderliness as well as security for residents who will live in an area.

The granting of an *IMB* at that time became a matter of debate, this was because the settlements that were being built were very close to the Pertamina Depot, which was very dangerous. In the construction of settlements, there should be a safe distance of at least 500 meters to 1 kilometer according to City Planning Observer, Nirwono Joga. This is also due to the safety of both parties, both Pertamina and the surrounding residents.

However, in the case that just occurred on March 3<sup>rd</sup> 2023 and has become a current issue, namely the Pertamina Plumpang depot fire, it is known that the distance between the Settlements and the Pertamina depot storing fuel is only 5 to 6 meters, which is very dangerous. for the residential area, because if there is a fire it will strike directly into the settlement. It is suspected that the fire this time was caused by a fire from an oil pipe. Buffer zones or buffer zones also really need to be considered in order to minimize events that are detrimental to many people, for example, the direct spread of fires to settlements. As an effort to avoid losses caused by fire, efforts to prevent and control fires in the work area should be implemented (Kurniawan, 2018). In fact, the buffer zone has become Pertamina's concern since the depot fire in 2009.

The recurring fire at the Pertamina Plumpang depot should be a concern and a question for the Government regarding the Occupational Health and Safety (*K3*) standards that apply at the Pertamina depot. In accordance with the provisions reviewed on Law no. 1 of 1970 concerning Occupational Safety, stated by the obligation of companies and workers in the implementation of work safety. This is because in less than 15 years the depot has experienced two major fires, which in the last case the fire caused by this fire can be said to be quite large. One of the most extreme things if a company does not apply the *K3* aspect properly is that fires and explosions can occur (Haqi, 2018). In this *K3* standard at Pertamina, is it adequate both in terms of equipment and socialization of workers so as to minimize the occurrence of human error. In this case, the Government should carry out one of its functions, namely the supervisory function through its Ministers, as stated in Article 117 paragraph (1) of Law no. 3 of 2014 "Implementation of supervision and control related to the implementation of industry and industrial area business activities by the minister".

#### B. Pertamina Plumpang Depot Fire Accountability Based on a Review of Government Regulation No. 14 of 2015 concerning the National Development Master Plan

After the occurrence of several fires at the Pertamina Plumpang depot, this should have been a consideration for the government in granting building permits (*IMB*). This is because those who are responsible for fire prevention and control are local governments, companies and the community itself. Through DKI Jakarta Regional Regulation No. 8 of 2008 concerning prevention and control of fire hazards, as well as DKI Jakarta Governor

Regulation No. 143 of 2016 concerning Safety Management and Environmental Safety Management, buildings and settlements have been regulated, in an orderly or unorganized manner, they should have been facilitated with infrastructure and fire prevention and control facilities. Because the welfare of the community should be the responsibility of the Government, and therefore the government should carefully consider the land or area that will be granted a permit or legality.

As is known, the position of Pertamina's *BBM* depot, which has been in the Plumpang area since 1974, is innocent. This is based on the depot which is located from Tanjung Priok Port, only 5 kilometers away and is comparable to the Jakarta Master Plan from 1965 to 1985, in which the area around the depot was still empty yards, swampland and no settlements. Furthermore, the existence of the Pertamina Plumpang depot was maintained and given protection for national interest facilities in the General Spatial Plan of DKI Jakarta from 1985 to 2005.

With the establishment of a large-scale storage or depot that accommodates fuel oil (*BBM*), of course this triggers the arrival of the community, workers as well as supporting needs, for example, restaurants, temporary housing or boarding houses which gradually turn into illegal dense settlements, this is because the rates for renting or buying a place to live, the facilities and infrastructure provided, accessibility, and spatial alignment are included in several standards which are used as reasons for determining a place to live (Nursusandhari, 2009). Since that period until now, the DKI Jakarta Government has always ignored the violations that occurred when controlling and controlling space. In fact, the government should regulate and supervise the community. Supervision of the community is carried out through regulation by imposing certain restrictions on community activities (Nirahuwa Salmon).

Development should not be directly interpreted as the goal of all things, such as solving all problems, namely poverty, underdevelopment and other economic problems. But in development must always prioritize the welfare of both the people who live and the surrounding environment. In this case, the construction of residential areas for *Tanah Merah* residents, which are very close to the Pertamina depot, is considered very dangerous. As is well known, the Pertamina depot accommodates fuel oil (*BBM*) which is very volatile and can cause fire and does not rule out the possibility of a fire occurring. It is possible for workers and the public who are within that radius to be directly exposed to fire, or to be affected by air explosions. (Arifin Jati Sukma and Rochim Bakti Cahyono, 2018)

For the fire incident that took place in the Pertamina Plumpang depot area on March 3<sup>th</sup>, 2023 which caused damage and claimed lives, in this case those responsible for material and immaterial losses are the Government, agencies and also the community itself. The authority possessed by the government for this incident is to make repressive efforts, namely:

- A. It is necessary to evaluate the DKI Jakarta Governor Regulation Number 31 of 2022 concerning the Detailed Spatial Plan and the 2030 DKI Jakarta Regional Spatial Plan (as of now being reviewed) so that the existence of the Plumpang depot as the main city service in the energy and mineral resources sector (distribution of materials National Oil Fuel) which needs to be managed again.
- B. The Citata DKI Jakarta Agency and Pertamina have re-mapped the land delineation to ensure that the Plumpang depot land owned by Pertamina is 48.35 hectares wide out of the total area of 151 hectares, and the remaining 102.65 hectares of land can be used for a buffer zone or buffer zone. Land confirmation includes the re-measurement of the land, the clarification of the legality of the certificate, as well as negotiations and agreements on compensation.

- C. The DKI Jakarta Citata Agency required swift action to prepare a master plan for the rearrangement of the space and the Plumpang depot area. The buffer zone must surround the Plumpang depot and reorganize dense settlements into integrated vertical residential areas. As well as establishing a red zone at the location of the fire which is also a strict prohibition for residents to return to building houses.
- D. Preparation of a master plan for the fire protection system for the Plumpang depot area by the DKI Jakarta Fire Management and Rescue Agency (Gulkarmat). The industrial plan consists of: mapping of fire areas, the number of fire suppression equipment needed and the need for hydrant pumps.

Even though Pertamina is completely innocent of the Tanah Merah residential community, still based on Law Number 3 of 2014 concerning Industrial Law it has been stated in Article 116 paragraph 1 it states that "Residents have the right to receive protection from the negative influences of industrial business activities". Then PT. Pertamina still has to carry out its responsibility for the losses experienced by the community around the depot. Accountability can also be carried out together with the local government which has issued an IMB which is considered inappropriate because it is adjacent to an oil depot which is prone to fire.

### **Conclusion**

Based on the description that has been submitted regarding the Pertamina Plumpang depot, it can be concluded as follows:

1. The Pertamina Plumpang depot existed long before the emergence of settlements in the area. It is also known that the Pertamina Plumpang depot land is in accordance with the Jakarta master plan for 1965-1985.
2. The granting of a building permit (*IMB*) by the government at that time could not be considered the right decision, moreover the settlement was very close to the Pertamina depot, only about 5 to 6 meters away, where there should have been a buffer zone of 500 meters up to 1 kilometer where this makes the settlement at risk of fire hazard. So that the Government must also take responsibility for the fire case at the Pertamina Plumpang Depot this time.

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### **References**

- Law Number 3 of 2014 Concerning Industrial Law.
- \_\_\_\_\_ Number 11 of 1967 concerning Basic Mining Provisions.
- \_\_\_\_\_ Number 22 of 2001 concerning Oil and Gas.
- \_\_\_\_\_ Number 8 of 1971 concerning the State Oil and Gas Mining Company.
- CNN. (2023, March 4). Kronologi Kebakaran Depo Plumpang. CNN.

- Salim HS., S. M. (n.d.). *Hukum Penyelesaian Sengketa Pertambangan di Indonesia*. Pustaka Reka Cipta.
- Eva Nursusandhari. (2009). *Persepsi, Preferensi, Dan Willingness To Pay Masyarakat Terhadap Lingkungan Pemukiman Sekitar Kawasan Industri*.
- Haqi, D. N. (2019). *Nalisis Potensi Bahaya Dan Risiko Terjadinya Kebakaran Dan Ledakan Di Tangki Penyimpanan Lpg Pertamina Perak Surabaya*. *The Indonesian Journal of Occupational Safety and Health*, 7(3), 321.  
<https://doi.org/10.20473/ijosh.v7i3.2018.321-328>
- Jogja. (2023). *Tata Ulang Ruang Plumpang*. Media Indonesia.
- Pertamina. (n.d.). *Sejarah Pertamina*. Pertamina.
- Nirahuwa Salmon E.M., S. M. (n.d.). *Hukum Perizinan Pengelolaan Sumber Daya Alam di Wilayah Laut Daerah*. Rajawali Pres.
- Rigen Adi Kowara, & Tri Martiana. (2017). *Analisis Sistem Proteksi Kebakaran Sebagai Upaya Pencegahan Dan Penanggulangan Kebakaran (Studi Di Pt. Pjb Up Brantas Malang)*. *Jurnal Manajemen Kesehatan Yayasan RS. Dr. Soetomo*, 3.
- Venti Eka Satya. (2018). *Strategi Indonesia Menghadapi Industri 4.0*. Info Singkat, X.