

IMPLEMENTASI PERATURAN PEMBUANGAN SAMPAH LAUT OLEH KAPAL TANKER DARI PERSPEKTIF HUKUM LINGKUNGAN INDONESIA

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ABSTRACT

The state wants the protection of the marine environment through the ratification of various international conventions such as the International Convention for the Prevention of Pollution from the Ship (hereinafter referred to as MARPOL).), which regulates the port authority, in this case the role of the harbormaster in upholding the sea due to oil pollution by tankers as stipulated in the 1982 Marine Law which stipulates that law enforcement against perpetrators of marine environmental pollution must be carried out. out by flag states (flag countries), port states and coastal states as stipulated by Articles 213-220 of the 1982 Law of the Sea Convention. Marine pollution can also be the result of ship operations and or ship accidents, whether intentional or unintentional, however due to pollution The sea has a very broad impact on all life both in the sea and on land that is affected by pollution. The research method used is qualitative. Data collection techniques using interviews, observation and literature review. Data validity using triangulation. The data analysis technique uses an interactive model of qualitative analysis. The conclusion of this study, Indonesian positive law, the law aims to avoid oil pollution in the sea by tankers through the implementation of oil disposal management by tankers and monitoring the completeness of ship infrastructure. to the standardization of pollution owned by tankers. Prevention efforts are being made to tackle oil pollution at sea by tankers through a pollution prevention monitoring mechanism with pollution control equipment to prevent and control pollution for tankers entering the territory of the Republic of Indonesia, if tankers cannot anticipate pollution, Syahbandar and the team formed will tackle the pollution through facilities owned by oil companies.

Keywords: pollution, tankers, law of the sea

1. Introduction

In 1982, the United Nations in the United Nations Convention on Law of the Sea 1982 (UNLOS 1982) Article 1 paragraph (4), defines marine pollution as: "Pollution of the marine environment" means the entry by humans directly, or indirectly, substances or energy into the marine environment, including estuaries, that results in or is likely to result in deleterious effects such as damage to living resources and marine life, hazards to human health, obstacles to marine activities, including fishing and other lawful uses of the sea. , decreased quality of seawater use and decreased facilities (Soekanto, 2003).

In 2009, Indonesia experienced a case of marine environment pollution, which ultimately led to a dispute with the private sector regarding pollution. 20 August 2009 (Hardjo Sumantri, 2009), there was an

explosion in the Montara oil field which is in the Australian Exclusive Economic Zone (EEZ). The explosion resulted in spilled crude oil extending to the Indonesian EEZ. The 1982 Law of the Sea Convention is the embodiment of the result efforts of the international community to regulate marine issues as a whole, the problem of protecting the marine environment from sources of pollution.

One of the marine environmental pollution originating from oil spills by tankers, in response to this situation, the Washington Conference in the United States in 1926 issued recommendations for limiting the disposal of oil in the sea. Oil transportation is important to the world economy and is big business. It is estimated that 40% of the total trade is transported by sea. Sea transportation facilities are dominated by tankers, which are estimated to be more than 400 super tankers sailing every

day. These ships annually spill one to two million tons of oil in the marine environment. Oil spills into the sea are caused by ship operations, ship accidents resulting in degradation of the marine environment. Pollution caused by the operation of tankers is estimated at 75%, while due to ship accidents only 25% of the total pollution that occurs.

To be able to balance the problem of oil pollution at sea, the coastal state wants to protect the marine environment through the ratification of various international conventions such as the International Convention for the Prevention of Pollution from the Ship (hereinafter referred to as MARPOL).), which regulates the port authority, in this case the role of the harbor master in upholding the sea due to oil pollution by tankers as stipulated in the 1982 Marine Law which stipulates that law enforcement against perpetrators of marine environmental pollution must be carried out. out by the flag state (flag state), port state and coastal state as stipulated by Articles 213-220 of the 1982 Law of the Sea Convention.

Regulations regarding marine pollution responsibility for ships transporting oil as cargo (tankers) are contained in the 1969 Civil Liability Convention (CLC 1969). In the provisions of national law, Indonesia does not have separate regulations regarding marine oil pollution, whether originating from ships. Existing regulations are limited to preventing marine pollution, for example by ratifying several international conventions such as the 1969 Civil Liability Convention.

2. Method

Considering the formulation of the research problem, this research is a qualitative research. Qualitative research has several characteristics, namely (Sutopo, 2002): (a) natural setting, (b) current problems, (c) focus on description, (d) researchers as the main research tool, (e) understanding of tacit knowledge, (f) meaning as the main research concern, (g) inductive analysis, (h) structure as a ritual constraint, (i) qualitative research that is holistic, (j) flexible and open research design, (k) negotiated outcomes, (l) report form with the case study model, (m) idiographic interpretation, (n) tentative application, (o) the attachment between the findings and the focus and (p) the use of special criteria for the results of the process. This method is used to collect primary data which is done by conducting

guided free interviews with various parties who are seen as understanding the object under study.

made directly to determine the actual state of the object under study. Observations can be made in two ways, which are then used to refer to the type of observation, namely non-systematic observation, which is carried out by observers without using observation instruments. Systematic observation, which is carried out by observers using guidelines as an observation instrument. (Arikunto, 2006: 157).

3. Result and Discussion

Marine pollution is the entry of substances or energy from humans into the marine environment which can endanger living resources, human health, disrupt marine activities including fishing, decrease the value of seawater quality, and other marine uses (Beiras; 2018). In 1885 the launch of the ship MT. Gluckouf was the first oil tanker with a main drive using a diesel engine, three years after that incidents of oil pollution at sea began to appear. In 1954 the British government (UK) took the initiative and organized the "Oil Pollution Convention" to prevent the disposal of oil mixtures and the operation of tankers and from other ship engine rooms (World; 2011). With the massive pollution of the SS Torrey Canyon in 1967, after the "International Conference on Marine Pollution" was held and the "International Convention for the Prevention of Pollution from Ships" (known as MARPOL) was born in 1973 and perfected with Tanker Safety and Pollution Prevention (TSP)) and known as MARPOL 1973/1974, which until now is still the largest regulation in its field (Sulistiyorini; 2017). The International Convention for the Prevention of Pollution from Ship (International Convention on the Prevention of Pollution from Ships) is the main convention that regulates the prevention of pollution of the marine environment by ships originating from operations or ship accidents (Bisri, Sumali, Faouzou, Panjaitan, & Sunarto: 2018). Shipboard Oil Pollution Emergency Plan (SOPEP) is an emergency plan for oil pollution at sea. In dealing with oil spills, a training is needed to prevent or avoid oil spills at sea, namely the SOPEP drill (Network, 2019). The purpose of the emergency response exercise on board is to maintain the crew's skills in using equipment and physical readiness so that they are used to dealing with emergencies

(Purwantomo; 2019). Exercise aims to learn to get used to being able to do something (Khariri; 2017). Every company should establish and implement procedures to identify training required in support of the safety management system and ensure that such training is made available to all relevant personnel (IMO; 2015). Factors that can affect the occurrence of oil spills cannot be resolved properly and effectively because the implementation of the handling of oil spills carried out by the ship's crew is not carried out according to procedures, the use of SOPEP tools by the ship's crew is not appropriate, the understanding is lacking by the ship's crew regarding SOPEP drills, lack of understanding by ship crew regarding work safety concerns, lack of supervision by ship officers during the implementation of oil spill drills (Silalahi; 2017). During the implementation of ship to ship fuel bunkers with the SPOB Syarifah ship in Tanjung Sekong Merak waters on May 23 2018, an oil spill occurred on the LPG/C Decora vessel which started from a leak in the bunker hose connector flange connection with the bunker manifold flange. The cause of the occurrence of oil spills is the implementation of bunker activities and handling of oil spills that are not in accordance with predetermined procedures.

The implementation of the bunker should have been carried out according to predetermined procedures, but in reality when implementing bunker activities on the LPG/C Decora ship it did not go according to procedure, this was seen during the implementation of bunker activities on LPG/C Decora SOPEP equipment was not prepared around the manifold during the activity bunkers underway. As well as the process of handling oil spills that occurred when the bunker activities were not carried out in accordance with the established certificates, they only had the knowledge and experience of each.

When an oil spill occurs, the ship's crew on duty panics and runs to look for SOPEP equipment to clean up the oil spill that has flowed onto the deck because the scupper plug diptrace is not closed, and the ship's crew has difficulty taking the required SOPEP equipment, because the SOPEP equipment is not prepared beforehand near the manifold. The ship's crew did not prepare SOPEP equipment before implementing the bunker, because the ship's crew thought that there would be no oil spill, and the bunker activities would run

smoothly as usual. When an oil spill occurred, the crew on deck guard duty were only the Oiler and the helmsman. They did not immediately report to the duty officer that an oil spill had occurred on the deck and only handled the oil spill themselves by dividing their respective tasks, namely the Oiler's duty to tightening the flange connections and the helmsman cleaning up the oil spill on the deck. When the oiler tightened the flange connection, the oil spill could not stop and was still flowing onto the deck, only then did the helmsman inform the officer on duty who was on duty in the cargo control room that an oil spill had occurred on the deck. Then the officer on duty immediately contacted the SPOB Syarifah ship to temporarily stop the bunker process and notify all crew that an oil spill had occurred on the deck.

Efforts to increase the alertness of the crew of the LPG/C Decora ship in handling oil spills in bunker activities by implementing oil spill drills to increase the alertness of the crew of the LPG/C Decora ships in handling oil spills in bunker activities, namely by:

- a. Carrying out oil spill drills is carried out in accordance with the certificates and schedules determined by the company.
- b.]Create or stipulate a Shipboard Oil Pollution Emergency Plan (SOPEP) and carry it out during training.
- c. Conducting safety meeting after the implementation of oil spill drill.
- d. Supervision by senior officers during work activities so that all activities can be controlled properly and correctly in accordance with existing procedures.
- e. Companies must provide work safety equipment or oil spill prevention equipment on board.

Based on the results of the fishbone analysis, there are several main factors, namely Man, Material, Method and Machine where each of the main factors has other, more complex causative factors.

The following is a discussion of each of these factor.

- a. Man Crew did not attend training.
Every ship's crew has the same obligation to attend training before being on board and training while on board. The training aims to train the alertness of the ship's crew in taking an action in an unwanted condition and to train discipline in doing something. Many

crew members did not attend the training because they had other interests. The crew did not carry out safety procedures while working. Procedure is a series of specific actions, actions that must be carried out or carried out in a standard (same) way so that you always get the same results from the same circumstances.

In safety work, procedures have a very vital function to complete an activity so as not to cause an accident. Most crews do not want to follow predetermined procedures, for example the crew concerned does not use personal protective equipment when carrying out bunker activities. The crew made negligence during the implementation of the activity. When carrying out fuel bunkers, a procedure is needed that can assist in managing the course of the bunker process. During the implementation of the fuel bunker there was an oil spill originating from the connection of the bunker hose flange with the bunker manifold flange. This happened because of the negligence of the ship's crew during the implementation of the bunker. After installing the flange, the ship's crew must first check whether the installation is impermeable or not, checking by using soapy water sprinkled on the joints of the two flange. If there are air bubbles then the installation is not airtight.

Based on these three factors, namely the crew did not participate in training and the crew did not carry out safety procedures while working and the crew made negligence when carrying out activities, this could result in oil contamination or an oil spill.

Damage to the ship's equipment system, so it takes a long time to operate.

In carrying out bunker activities, an adequate ship equipment system is needed to support and support the successful implementation of these activities. The ship's equipment system is also very influential in determining the time needed to complete bunker activities. If the equipment system on the ship is damaged, it will hinder bunker activities. So that there is a need for routine checking and maintenance of the equipment system, so that during the implementation of the bunker there are no problems that result in disruption of bunker activities.

Damaged scupper plugs. In bunker activities, scupper plugs are very influential in preventing oil pollution in the sea. Because the scupper plug functions to close or clog the hole or exhaust channel that leads directly to the sea. We must always check the condition of the

scupper plug, if the scupper plug has hardened and there are cracks, then the scupper plug cannot be used to properly and impermeably close the hole or exhaust. We recommend that the scupper plug should be replaced with a new one immediately to avoid oil spills at sea. Based on these two factors, namely damage to the ship's equipment system and damage to the scupper plugs, it can result in oil pollution or oil spills.

a. The material for anti-oil pollution equipment is no longer suitable for use.

In carrying out bunker activities, anti-oil pollution equipment has a very important role to prevent pollution at sea. Oil spill anti-pollution equipment must be used as it functions properly. Anti-pollution equipment must be in good condition and ready to use, this is intended if one day an oil spill occurs, anti-pollution equipment is ready. If the anti-pollution equipment is damaged or in bad condition, it must be replaced immediately because if the damaged anti-pollution equipment is forced to be used, the oil absorption will not work optimally. For this reason, it is necessary to check and maintain the anti-pollution equipment. Not according to the condition of the gasket / packing flange.

Gas jackets/packings whose conditions are no longer suitable for use such as cracked or broken, hard or stiff can cause oil drips or spills during bunker fuel activities. So to avoid oil spills, before carrying out bunker activities it is necessary to check the condition of the gasket first. When carrying out research on the LPG/C Decora ship, the condition of the gasket at that time was already cracked and stiff, this was due to the age factor of the gasket usage which exceeded the usage limit. For this reason, the gasket must be replaced with a new one immediately to avoid oil spills. Based on these two factors, namely the condition of anti-oil pollution equipment that is not suitable, and the condition of the gasket/packing flange that is not suitable, can result in oil pollution or oil spills.

b. Method Implementation of bunkers and handling of oil spills is not in accordance with procedures

When carrying out bunker activities, all ship crew are required to follow predetermined procedures to support the smoothness and success of carrying out these bunker activities. When carrying out the research, the researchers

found that the ship's crew at LPG/C Decora did not carry out the predetermined bunker procedures, namely during the implementation of bunker activities the ship's crew did not prepare SOPEP equipment around the manifold, and the diptrace was not closed. This results in an oil spill if the ship's crew will have difficulty dealing with the oil spill and the spill will spread on the deck.

As a result, the handling of oil spills does not run optimally. Communication is one of the most important factors in carrying out bunker activities so that misunderstandings do not occur in doing work. While carrying out the research, the researchers found that the crew of the LPG/C Decora did not communicate properly. This can be seen when an oil spill occurred, the crew who knew about the oil spill did not immediately notify the officer who was on duty at the time,

This indicates that the communication between the crew on the LPG/C Decora ship is not going well. The crew who is aware of an oil spill should notify the officer on duty so that the handling of the oil spill will be handled quickly and the oil spill will not spread on the deck. There is no senior officer oversight of inexperienced ship crew. In carrying out bunker activities, supervision from more senior officers is needed.

In this case the chief engineer acts as a supervisor during bunker activities. If the chief engineer does not supervise his subordinates when carrying out the fuel bunkering, this is the cause of the crew not carrying out the fuel bunkering according to the procedure. There were several crews who were not on standby in their positions during the bunker process, there was no preparation of anti-oil pollution equipment, no scupper plugs were installed in the holes or channels that lead directly to the sea. For this reason, it is necessary to carry out supervision by officers so that the implementation of bunker activities goes according to procedures, so that no oil spills will occur.

Based on these three factors, namely the implementation of bunkers and handling of oil spills that are not in accordance with procedures, the absence of good communication between ship crews, and the absence of senior officer supervision of inexperienced ship crews, this can result in oil pollution or oil spills. Efforts to improve the alertness of the crew of the LPG/C Decora ship

in handling oil spills during bunker activities by carrying out oil spill drills which are carried out in accordance with the certificates and schedules determined by the company.

Oil spill drill is an activity that aims to increase the knowledge, abilities and skills of ship crews in dealing with oil spills. The implementation of the oil spill drill on the LPG/C Decora ship was not carried out in accordance with the drill plan determined by the company. During the implementation of the oil spill drill, the ship's crew did not do it well, they underestimated it and did not really carry out the oil spill drill. To prepare the alertness of the ship's crew if one day an oil spill occurs, the ship's crew must carry out an oil spill drill according to the certificate and carry out the oil spill drill as in actual conditions, as well as carry out a routine oil spill drill, which is carried out once a month, so that alertness and awareness all crews will be trained and ship crews will be able to face if one day an oil spill occurs, they already understand and understand the duties and responsibilities of each ship crew.

With the presence of an oil spill drill, it is hoped that the ship's crew understands the procedures that must be carried out when an oil spill occurs on board, the equipment that must be prepared and personal protective equipment must be used. So that if one day an oil spill occurs, the ship's crew is ready and understands what must be done.

Create or determine a Shipboard Oil Pollution Emergency Plan (SOPEP) and implement it during training. SOPEP is an emergency plan for oil pollution at sea. Contains the scenario plan for the tasks of each ship's crew when an oil spill occurs. Overall responsibility for SOPEP is in the hands of the Master, and all officers must ensure that SOPEP must be on board and the application of regulations regarding SOPEP must be carried out. On every ship there is usually an SOPEP but most of the ship's crew do not fully know the contents of the SOPEP, so when an oil spill occurs they only handle oil spills according to the experience of each crew. For this reason, the drill must be carried out in accordance with predetermined certificates, so that when an oil spill occurs, the ship's crew is ready and understands the duties of each ship's crew in handling the oil spill and handling oil spills to be optimal.

Safety meeting Safety meeting is a meeting held to discuss safety activities and evaluate if something goes wrong in carrying out the work. The safety meeting is chaired by the Captain and assisted by other officers. Implementation of safety meetings should be held once a month so that the ship's crew do not forget and always remember about the warnings that have been given. This is especially the case when there will be inspections from the company and whenever an accident occurs. The time for carrying out the safety meeting should be held in the morning before the crew goes to work so that during the safety meeting none of the crew members fall asleep due to fatigue. In addition, a safety meeting is also held after the drill is carried out.

Supervision Supervision is one of the important things in supporting the creation of safety. Supervision is carried out when there are work activities so that all activities can be controlled properly and correctly in accordance with existing procedures. Supervision should be focused on things that are new and prone to errors. For example, supervising new ship crews and ship crews who do not understand the existing rules and procedures. Not only on humans, supervision is also carried out on objects or tools used in work activities, for example, checking safety equipment and oil spill handling equipment.

The role of the company The role of the company in achieving a high level of work safety, the company must provide work safety equipment on board or oil spill prevention equipment on board, namely by providing a good response in responding to every request for oil spill handling equipment that has been damaged on board. So that when an oil spill occurs on a ship, the oil spill can be resolved optimally and the impact of the oil spill can be reduced.

4. Conclusion

Based on the explanation above, it can be concluded that preventive efforts are being made to tackle oil pollution at sea by tankers through a pollution prevention monitoring mechanism with pollution control equipment to prevent and control pollution for tankers entering the territory of the Republic of Indonesia, if tankers cannot anticipate pollution, Syahbandar and the team that was formed will deal with pollution through infrastructure owned by oil entrepreneurs, in this case

Pertamina, according to the provisions of Indonesian positive law, the law aims to prevent oil pollution in the sea by tankers through the implementation of oil disposal management by ships tankers and supervision of the completeness of ship infrastructure. to the standardization of pollution owned by tankers.

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