

## **The Analysis of The Policy For The Implementation of International Safety Management Code (ISM-Code) Towards Passenger Ships (A Study at PT ASDP Indonesia Ferry Persero)**

**Neneng Jahidin<sup>1\*</sup>, E Apriyani<sup>2</sup>, Denny Johny Najoan<sup>3</sup>, M Fahir<sup>4</sup>**  
<sup>1,2,3,4</sup> Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia  
\*Corresponding author: nenengjahidin@gmail.com

**Abstract.** The shipping safety is obliged to fulfill in for the protection of life both the crew and the passengers and it is ruled in SOLAS (Safety of Life at Sea) as the international system of sea safety. PT ASDP Indonesia Ferry is the service sailing company that is mandated to apply both the Document of Compliance (DOC) for the company and Safety Management Certificate (SMC) for the ships. The certificate is provided by the Directorate General of Sea Transportation as the government authority to examine the requirement for the company and the ships dealt with the management of security and the prevention of environment pollution. The objective of the study is to find out the implementation of the policy for the International Safety Management Code (ISM CODE), to analyze the problems and the strategies that the company must take to get the solutions properly and precisely.

**Keywords:** safety, ship accidents, zero accident

### **1. Introduction**

The safety and security on sea transportation is the main priority for the passengers prior the reasonable price, the speed, the punctuality and the comfort. The recent ship accidents such as sinked ship, crashed or burned, happen as the result of the problems of the safety and security on sea transportation and in order to overcome the problems and to prevent the accidents, the Directorate General of Sea Transportation issues the policy as the laws of sailing concerning the safety for passenger ships and weather condition on sea in Indonesia (Ditjen Hubla, 2017).

Further on the Laws number 17 of 2008 article 1 verse 32 and 33, the both concern about the safety and the security on sea transportation. They state about the compliant of the requirement on board included the safety, the prevention of water pollution, the crew, the cargo, the wealth of the crew, the health service for the passengers, ship status, the management both the safety and pollution prevention, and the management of security for sailing on certain sea area (UU No. 17 Tahun 2008).

PT ASDP Indonesia Ferry (Persero) has applied those mandatory rules and conducted the certificates to improve its service on providing sea transportation among islands in Indonesia so that the researchers are going to analyse the implementation of the policy.

### **The Method**

The research of the study uses qualitative method. According to (Sugiyono, 2013) qualitative research is a method that is based on the positivism philosophy. The sample of the research is purposive and snowballs, and the technique used is triangulation. The data analysis is inductive or qualitative which the result highlights the essence of data collection. The subject of the study is PT ASDP Indonesia Ferry (Persero) as the company including the captain and the crew ships. The main data is collected by the interview about the implementation of International Safety Management Code (ISM CODE). The interviewees are the employees, the captain and the crew of PT ASDP Indonesia Ferry (Persero).

**The Results and The Discussion**

Based on the results of the research, it is found that International Safety Management Code (ISM CODE) refers to the details of the international management of ship operation security and the protection of the environment. Although International Safety Management Code (ISM CODE) doesn't guarantee for the occurrence of sea accidents, it functions to reduce the level of sea accidents and prevent pollution on sea (Baharuddin M T, Keselamatan Maritim). PT ASDP Indonesia Ferry (Persero) has implemented the regulation and the policy since 1998 and the following are about the benefits of it:

1. Reducing the numbers of sea accidents on human and the loss.
2. Improving the awareness on the safety and personal skills on the Safety Management System.
3. Forming safety culture for the crew.
4. Improving clients' trust.
5. Improving the company's income.

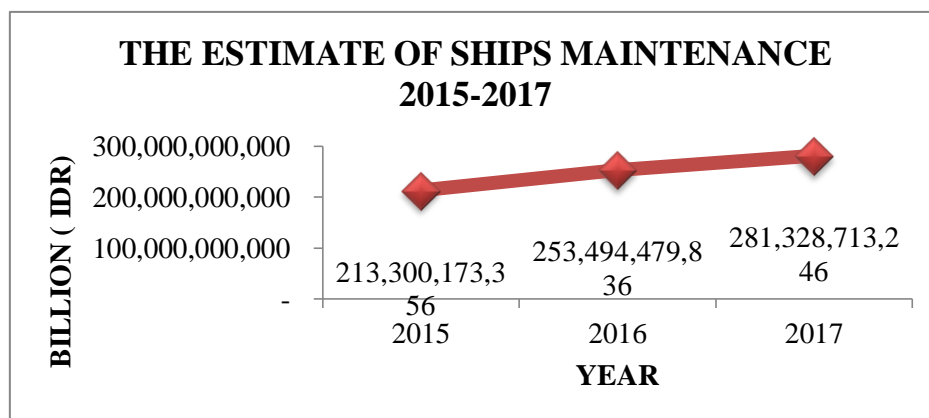
Besides, the following are about things to be concerned:

1. Limited socialization of the policy.
2. Fewer updating of the policy and the latest STCW (Standards of Training, Certification and Watchkeeping) Amendment Manila.

Meanwhile, the company under the land management obtains the Procedure of Operational Standard that includes the 16 elements of International Safety Management Code (ISM Code) and some of them are as follows:

1. The crew.
2. The maintenance.
3. The operation.

All the ships of the company are provided by Safety Management Certificate (SMC) in line with International Safety Management Code (ISM Code) which is according to the International Safety Management Code (ISM Code) regulation that a company is obliged to has Document of Compliance (DOC) and a ship is obliged to has Safety Management Certificate (SMC) for the seaworthiness. In addition, as the impacts of the implementation of the policy, the company has raised the estimates for International Safety Management Code (ISM Code), the ships maintenance and the investment of safety equipment. The following is the table of the estimate for the ships maintenance:



**Figure 1.** The Estimate Of Ships Maintenance 2015-2017  
Source: PT. ASDP Indonesia Ferry (Persero)

From the above data, it shows that the company has increased the estimate of ship maintenance in the last 3 years as 16% (2015-2016), and 10% (2016-2017). The next following is the table of the estimate of *International Safety Management Code (ISM Code)*:

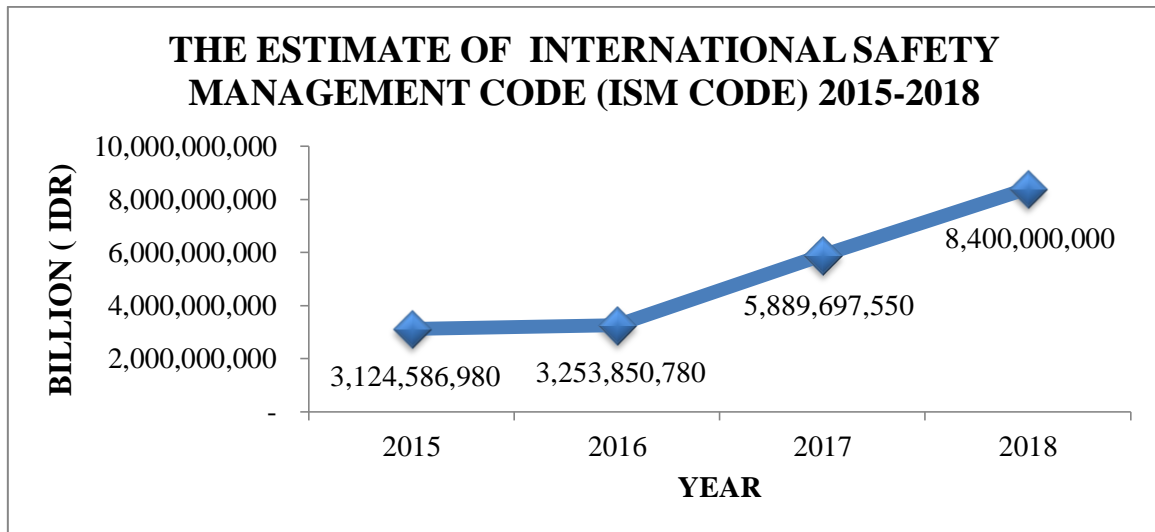


Figure 2. The Estimate Of International Safety Management Code (ISM Code) 2015-2018  
Source: PT. ASDP Indonesia Ferry (Persero)

The data shows that the company has raised the estimate of International Safety Management Code for the last 4 years; as 4% (2015-2016), 45% (2016-2017), and 30% (2017-2018). Thus, the following is the data of the estimate of safety equipment:

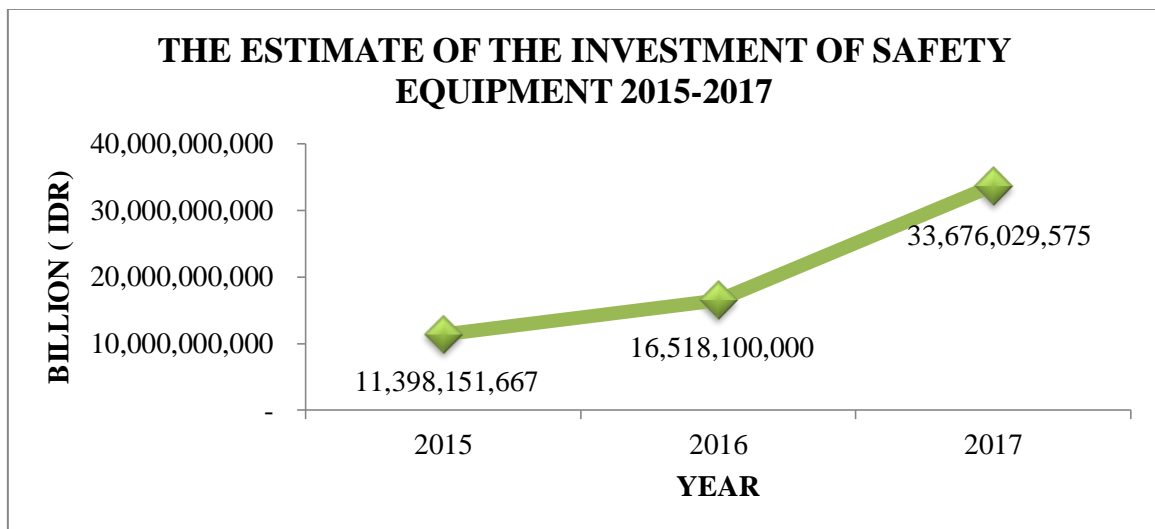


Figure 3. The Estimate Of The Investment Of Safety Equipment 2015-2017  
Source: PT. ASDP Indonesia Ferry (Persero)

Besides, the company has spent the estimate of the investment for safety equipment that is 31% (2015-2016) and 51% (2016-2017).

Meanwhile (Report Annual, 2017), when we compared to the 2017 plan, passenger, vehicle and goods production is only realized at 78 %, 85 % and 83 %. This due to the presence of technical disturbances on some ship and inoperative vessels, exceed docking days for some ships, weather factors and other factors such as delay in ship letters (APM) issuances, and increasing competitor ships on commercial routes. The following is the Numbers of accident in the past 8 years:

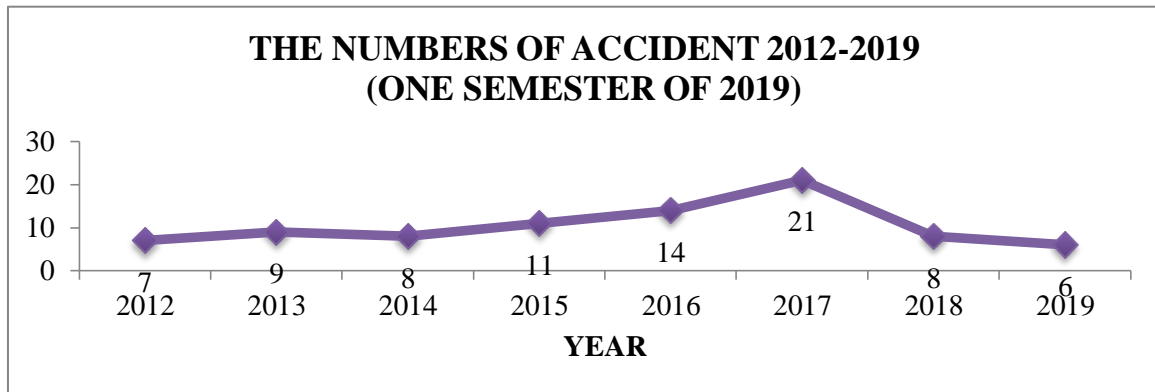


Figure 4. The Numbers Of Accident 2012-2019 (One Semester Of 2019)

Source : PT. ASDP Indonesia Ferry (Persero)

In figure 4 above, it can be seen the numbers of Ship Accident in the last two years increased into 21 accidents which it is the highest Numbers of Accident. But significantly decreased into 8 accidents then 6 accidents in 2019 (one semester) which PT. ASDP has successfully pushed down the Numbers of Accidents in one semester or a half year of 2019 started in June 2018.

In the following graphs, it is shown the types of damage ship and kinds of ship accidents:

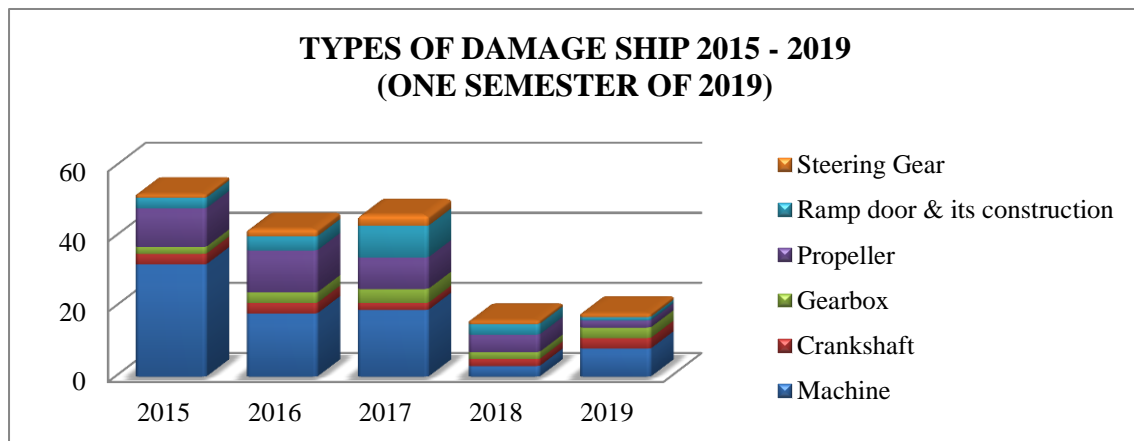


Figure 5. Types Of Damage Ship 2015-2019 (One Semester Of 2019)

Source: PT. ASDP Indonesia Ferry (Persero)

In figure 5 which the highest number of machine damaged is 32 in 2015, the highest number of crankshaft damaged is 3 in 2015, 2016 & 2019. Then, the highest number of gearbox damaged is 4 in 2017 and the highest number of propeller damaged is 12 in 2016, the highest number of ramp door and construction damaged is 9 in 2017 however, the last one has the same

number of steering gear damaged that is 1 in 2015, 2018 and 2019 but the highest number of steering gear is 3 in 2017. It can be stated that the types of damage ship in 2019 PT. ASDP Indonesia Ferry is quite impressive for the implementation of *International Safety Management Code (ISM CODE)*.

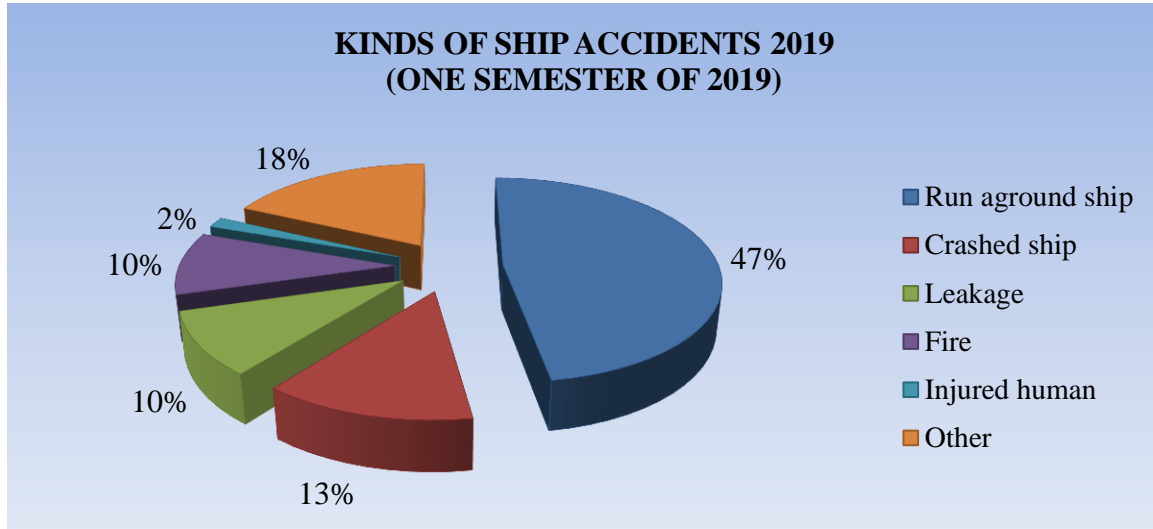


Figure 6. Kinds Of Ship Accidents 2019 (One Semester Of 2019)  
Source: PT. ASDP Indonesia Ferry (Persero)

From the figure above, the highest number of kinds of ship accidents is a run aground ship that reaches 47% while crashed ship is 18% and the lowest number is injured human that is 2%.

However, In any accidents, PT ASDP Indonesia Ferry (Persero) always evaluates the causes of the accidents in order to improve and to maintain the safety management by socialising the implementation of *International Safety Management Code (ISM Code)* both in the office and on the ship for once a week, updating the latest *International Safety Management Code (ISM Code)*, and holding the trainings for the crew. Besides, the *Safety Management System (SMS)* is also implemented on all the ships and the office as the mandatory system in the company. It is also strengthened by preparing the directory book for the crew as a way to socialize the latest regulation based on the *SOLAS (Safety of Life at Sea)*, especially in every shift of crew. According to the *International Safety Management Code (ISM Code)*, the company and the crew have to hold safety meeting for at least once a month, and the meeting must be conducted at the time the ship departs the port and the crew's shifted. Furthermore, according to SOLAS, every crew must be completed by the following certificates:

1. BST (Basic Safety Training).
2. AFF (Advance Fire Fighting).
3. MC (Medical Care).
4. SSO (Ship Security Officer).
5. ERM (Engine Resource Management).
6. SAT (Security Awareness Training).
7. MFA (Medical First Aid).
8. SCRB (Survival Craft and Rescue Boat).

In other words, the completion of the certificates and regular meeting can minimize the accidents and pollution as well as any conditions on sea. Every crew has his own responsibility to handle any condition on ship along the sailing and they must be equipped by safety

equipments on board. It is also important to be connected with the land management to report anything happens about the ship and sea. To make the crew alert, the company has its training to face emergency condition on ship and the following is the schedule:

NO	KINDS OF EMERGENCY SITUATION	MONTHS											
		Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
1.	FIRE DRILL *)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	ABANDONED SHIP *)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	PEOPLE INJURED **)	✓		✓		✓		✓		✓		✓	
4.	FELL PEOPLE TO THE SEA **)		✓		✓		✓		✓		✓		✓
5.	HEALING FELL PEOPLE TO THE SEA **)		✓		✓		✓		✓		✓		✓
6.	ENTERING RESTRICTED ROOM ***)			✓			✓			✓			✓
7.	EMERGENCY STEERING ***)		✓			✓			✓			✓	
8.	RUN AGROUND SHIP *****)	✓						✓					
9.	LEAKAGE *****)			✓						✓			
10.	POLLUTION *****)					✓						✓	
11.	DAMAGED MAIN MACHINE *****)				✓								
12.	CRASHED SHIP *****)						✓						

Table 1. The Schedule Of Emergency Training On Ship  
Source: PT. ASDP Indonesia Ferry (Persero)

The information about the schedule:

- \*) : Conducted at least once a month
- \*\*) : Conducted at least twice a month
- \*\*\*) : Conducted at least once in three months
- \*\*\*\*) : Conducted at least in a semester
- \*\*\*\*\*) : Conducted at least once a year

Symbol (✓) in the column refers to the plan of the emergency training

Further explanation about the training in order to improve the implementation of the policy both the ship and the crew is as follows:

1. The emergency training in case of fire and abandoned ship is conducted gradually for at least once a month.
2. The training on handling people injured and fell people to the sea, including healing the people is conducted at least twice a month.
3. The training on handling of entering a restricted room is done at least once in three months.
4. The training of handling a run a ground ship, the leakage and the pollution is done at least in a semester.
5. The training of handling a crashed ship is gradually done at least once in a year.

In addition, PT ASDP Indonesia Ferry (Persero) not only gives rewards for those who fully dedicate to the company by rewarding them with higher education, but it also gives

sanctions for those who disobey safety manual, quality manual, work instruction and standard form. The sanction could be declining someone's position, or making them under supervised by the human resource development.

### The Conclusion

According to the research findings and the discussion, the followings are the conclusion of the study:

1. PT. ASDP Indonesia Ferry (Persero) has implemented and conducted all the government laws of the safety and environmental protection.
2. PT. ASDP Indonesia Ferry (Persero) has implemented the policy of *International Safety Management Code (ISM CODE)* well proven by the decrease of ship accidents in every year.
3. PT. ASDP Indonesia Ferry (Persero) has committed to enhance the operational ships by increasing the estimates of ship maintenance, the investment of safety equipment and *International Safety Management Code (ISM CODE)*.
4. PT. ASDP Indonesia Ferry (Persero) has done completely the six main principles on the safety and security of the ships to be tended into the zero accidents; they are:
  - a. The obedience to the both national and international regulations.
  - b. The obedience to the regulations.
  - c. The revitalization of the controller, supervisor and the auditor of ISM-CODE.
  - d. The fulfillment of the infrastructure.
  - e. The fulfillment of human resource capacity on safety.
  - f. The roles of passengers.

### References

- [1] M. Kadarisman and U. M. Jakarta, "Maritime Safety and Safety Policy," *J. Manaj. Transp. dan Logistik*, vol. 04, no. 02, pp. 177–192, 2017.
- [2] Pemerintah Republik Indonesia, "Undang - Undang Nomor 17 tahun 2008 Tentang Pelayaran," *Undang. Republik Indones. NO. 17 Tahun 2008*, no. Tentang Pelayaran, pp. 1–205, 2008.
- [3] Sugiyono, "Metode Penelitian(Studi Kasus)," *Metod. deskriptif*, no. April 2015, pp. 31–46, 2013.
- [4] Baharuddin M.T, "Keselamatan Maritim," *Univ. Hasanuddin*, 2015.
- [5] Annual Report, *PT. ASDP Indonesia Ferry (Persero)*. 2017.
- [6] Harianto M, Gani LA, dan Adiwicaksono. 2019. "Penerapan Kebijakan Internatinal Safety Management Code". Hasil Wawancara Pribadi: 8 Juni 2019, Kapal PT. ASDP Indonesia Ferry Cabang Merak.
- [7] Sumedi R, Oka C, dan Dewangga R. 2019. "Penerapan Kebijakan Internatinal Safety Management Code". Hasil Wawancara Pribadi: 8 Juni 2019, Kantor PT. ASDP Indonesia Ferry Cabang Merak.