

Responsibility of Airline For Civil Aviation Safety For Dangerous Materials and Goods in Aircraft

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Abstract

Air transportation is an aviation system that involves many parties. Implementation of aviation safety needs to be implemented in all sectors. This journal aimed to find out whether the cargo of hazardous materials or goods was meant, how the duties and obligations of airlines to the safety of civil aviation for hazardous materials and goods in aircraft, and how the airline's responsibility to the safety of civil aviation for materials and dangerous goods in the aircraft. The type of research in this journal was normative legal research. The approach in this journal writing used the approach of law (statue approach). The results showed that the Minister of Transportation Regulation No. 77 of 2011 Chapter II on the type of air transport accountability and the amount of compensation. Article 2 says carriers using aircraft shall be liable for losses to: Passengers dying, permanently disfigured or injured; Lost and damaged cabin baggage; Destroyed, or destroyed checked baggage; Destroyed, or damaged cargo; Air freight delays and losses suffered by third parties. Therefore the responsibility of airline in this case the airline is to start up to the downing of aircraft passengers.

Keywords: *Responsibility, Airline, Aviation Safety*

INTRODUCTION

Air transportation is an aviation system that involves many parties. In the world of aviation *compliance (compliance)* to the high safety standard (*safety standard*) is an absolute must. The application of aviation *safety* needs to be implemented in all sectors, both in the field of transportation/air transport operations, airport, navigation, maintenance and repair and training that refers to the rules of the International Civil Aviation Organization (*ICAO*) (Budi Sitorus & Tulus Irfan Harsono Sitorus, 2017).

According to Supriadi, one of the areas of life that are strived for the better is the problem of the transportation sector. Humans desperately need safe, fast, and regular transportation in supporting the mobility of their lives, both in local, national and international transportation. Humans want the transportation of trains, buses, ships,

planes, and others to run safely, quickly regularly and also at an affordable cost or fare (Yaddy Supriyadi, 2012)

Regarding Indonesia's strategic position as a domestic and international flight path, Indonesia has long established itself as a member of the *International Civil Aviation Organization (ICAO)*. Indonesia's involvement in ICAO members has been regulated related to regulations regarding aviation safety and security (Law No. 1 of 2009 on Aviation, Government Regulation No. 70 of 2001 on Airports, Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 74 of 2017 On Civil Aviation Safety Regulation Section 830 (*Civil Aviation Safety Regulation Part 830*) about The Procedure of Investigation of Accidents and Serious Incidents of Civil Aircraft, and others), one of which is communication, navigation and surveillance of air traffic flights (*Communication Navigation and Surveillance - Air Traffic Management / CNS-ATM*).

Aviation safety is a state of meeting the safety and utilization requirements of airspace, aircraft, airports, air transport, flight navigation, as well as supporting facilities and other public facilities (Article 1 Point 49 of Law No. 1 of 2009 on Aviation). So, flight safety can be influenced by several factors including factors of the physical condition of the aircraft, the condition of the flight crew, infrastructure, and natural factors. But the main factor is the physical condition of the aircraft. The physical condition of an aircraft depends on the maintenance carried out, the better an aircraft, the greater the cost that must be done vice versa.

Hazardous Materials and Goods are also one of the causes of plane crashes. According to the United States Federal Aviation Administration, the FAA (*Federal Aviation Administration*) said most of the causes of aviation accidents are human factors or human *error*. The rest is due to the aircraft factor itself (H.K. Martono, 1995). According to the Director of the Civil Safety and Security Unit (CSSU) of the University of Leicester, Simon Ashley Bennet, revealed there are 5 (five) common reasons for the occurrence of aircraft accidents, among others, as follows (Agniya Khoiri, 2016):

1. Pilot Error: As aircraft are increasingly sophisticated, 50 percent of plane crashes generally occur due to pilot error. Aircraft are complex engines that require a lot of management. Because pilots are actively involved with each stage of flight, there are many possibilities for making mistakes such as failing to program the vital management of a flight computer or miscalculating the required fuel, and so on.
2. Engineering failure: The cause of accidents due to tool failures reached about 20 percent despite improvements to the design and quality of manufacturing. Not only that, although significantly today's machines are more reliable than half a century ago, occasionally it still turns out to be failures.
3. Weather: Bad weather accounts for about 10 (ten) percent, although assisted by many tools, such as *gyroscopic* compasses, satellite navigation, and *uplink* weather data, aircraft still cannot ward off storms, snow, and fog.

4. Sabotage: It is about 10 (ten) percent of plane crashes are caused by sabotage such as lightning strikes. The risk posed by sabotage is far less than many people believe.
5. Human error: The rest is attributed to other types of human error such as errors made by air traffic controllers, *dispatchers*, *loaders*, refuelers, or maintenance technicians. Sometimes, this human error is caused by workers on flights working long *shifts*. In addition, maintenance technicians can also make potentially catastrophic mistakes.

Based on the status of the transportation accident investigation report and monitoring of transportation safety recommendations the National Transportation Safety Commission meeting on October 19, 2020 is as follows:

Table I
Aviation Accident Data



Source: National Committee for Transportation Harmony (KNKT)

The purpose of the implementation of national flights in Law No. 1 of 2009 on Aviation is to realize the implementation of flights that are orderly, safe, and comfortable, at reasonable prices, and avoid unhealthy business competition practices. The maintenance of the above safe and safe, is the most important guarantee in aviation, this is in view of the dangers and accidents that are easily caused by the use of an aircraft.

Looking at the 10 countries in ASEAN, Indonesia's flight safety level is in the last position. The points assessed in this audit range from regulatory conditions, licenses, operations, airports, air navigation, accident handling, to flight completeness. The same

is stated by the U.S. aviation authority, the *Federal Aviation Administration* (FAA). The FAA ranks level 2 or below the standard for the International Aviation Safety Assessment (IASA) category to Indonesia. (Eko Poerwanto, 2016)

Based on some of the above descriptions, it can be lifted in a writing in the form of journal about "Airline Responsibility for Civil Aviation Safety for Hazardous Materials and Goods in Aircraft", therefore in the coming future flight safety ratings in Indonesia can rise and can maintain it.

Based on the background description above, the problem can be formulated, such as: what is the load of hazardous materials or goods? What is the duty and obligation of airlines to the safety of civil aviation for hazardous materials and goods in aircraft? and how is the responsibility of airlines for the safety of civil aviation for materials and dangerous goods in aircraft?

RESEARCH METHODS

The type of research in this journal was normative legal research. This journal aimed to find out how the airline's responsibility for the safety of civil aviation for hazardous materials and goods in aircraft. The approach in this journal writing using the approach of law (*statue approach*) (Marzuki, 2011). The data used was secondary data. Secondary data was obtained from library materials. Secondary data consisted of primary legal materials, secondary legal materials and tertiary legal materials. Primary legal materials in the form of Laws, Government Regulations, Regulations of the Minister of Transportation and Ordnansi Air Transportation, secondary legal materials in the form of books in the field of law, legal journals, as well as literature and research results in the field of law, while tertiary legal materials in the form of websites and legal dictionaries.

DISCUSS AND ANALYSIS

Definition of Hazardous Material and/or Goods

Regarding hazardous materials and/or goods basically do not have one universal and uniform definition. This is due to the wide scope of materials and/or goods that can be categorized as hazardous materials and/or goods themselves. According to the International Air Transport Association (IATA) in its dangerous goods regulation and Annex 18 of the Safe Transport of Dangerous Goods by *Air*, dangerous goods are defined as follows: that a dangerous item is a material or substance that can potentially significantly endanger health, safety or property when transported by aircraft. (Regulation of the Minister of Transportation No. 90 of 2013 on Safety of the Transportation of Dangerous Goods in Aircraft in Chapter I on Definition) The dangers posed will result in safety.

In the maritime field, hazardous materials and/or goods have been tried to be regulated in *the safety of Life at Sea Convention* (SOLAS) and the International Maritime Dangerous Goods *Code* (IMDG), which covers *marine pollutants* in accordance with MARPOL Convention 73/78. While on land, the transportation of

hazardous materials and or goods is regulated in the International Carriage of Dangerous Good by Rail (RID) for railways and *the European Agreement concerning the international Carriage of Dangerous of Dangerous Goods by Road* (ADR).

Efforts made to regulate the international transport of cargo of hazardous materials and/or goods contained in the various conventions mentioned above are not limited to regulating their definition. Various international conventions also distinguish administrative issues, procedures, and even handling related to the safety and security of cargo of hazardous materials and or goods depending on the mode of transportation of the carrier.

Therefore in 1953, the United Nations Economic and Social Council (UN ECOSOC) established an ad hoc committee aimed at uniformizing various conceptions of hazardous materials and/or goods already for all modes of transportation, the United Nations *Subcommittee of Experts on the Transport of Dangerous Goods* (SCoETDG) is a committee of experts (UN CoE) under Un ECOSOC.

Regulatory models containing international standards in the form of nine classes of classification of materials and/or hazardous goods become in accordance with the level of danger they pose. The nine classes are explosives, materials or goods containing flammable gases, flammable liquids, flammable solids, oxidizing materials and oxidizing organic materials, toxic and infectious materials, radioactive materials, corrosive materials, as well as other hazardous materials and/or goods.

Details of the class of materials and/or hazardous goods, as classified by the UN Model Regulations compiled by SCoETDG, are as follows: (Lukman Saputra, 2018):

1. Explosives

The explosives in question in this first class include:

- a. *Explosive substances* are substances into or liquid (or a mixture of both) that are themselves capable of producing gases at a certain temperature and pressure at a speed that can cause damage to the surrounding environment as a result of chemical reactions. Substances that themselves are not explosives but can create explosions of gas, fog, or dust are not included in this first class, except those that are too dangerous to transport.
- b. *Explosive articles* are articles that contain one or more explosive *substances*. And
- c. Substances and articles that are not included in paragraphs (a) and (b) but are produced to create explosive or pyrotechnical effects.

Materials and/or dangerous goods belonging to this class of explosives are divided into six subclasses in accordance with Article 2.1.1.4.

- a. The first division is materials and goods that have a *mass explosive hazard*. For example, TNT and *Flare guns*.
- b. The second division is materials and goods that have a *severe projection hazard*, but cannot be classified into the first division. For example, ammunition and smoke.
- c. The third division is materials and goods that pose a hazard that emits a fire explosion, or projection, but does not belong to a mass explosive hazard.

- d. The fourth division is a substance and the article is not threatening in significant danger.
- e. The fifth division is a very insensitive substance that has *a mass explosive hazard*.
- f. The sixth division is a highly insensitive substance that lacks *mass explosive hazard*.

2. Hazardous Materials and/or Goods Contain Gas

According to Article 2.2.2, this class is divided into 3 subdivisions. These subdivisions are 1) flammable gases 2) non-flammable gases and non-toxic gases, and 3) toxic gases.

3. Flammable Liquid Material

Flammable liquids are liquids, liquid mixtures, or liquids containing suspended solids (e.g. paint) that can burn at 60°C in a vacuum or 65.6° C in an open space, or at temperatures less than that. This class has no subdivisions. Examples of this class are gasoline, alcohol, and varnish.

4. Materials on a Flammable

This flammable material is divided into three subdivisions: 1. materials on flammable solids, substances that can react on their own, 2. spontaneous combustible or substances that can spontaneously combustible, and 3. substances that can cause flammable gases when exposed to water. Examples of this fourth class are matchsticks, phosphorus, and sodium.

5. Oxidizing Materials and Oxidizing Organic Materials

This material consists of two subdivisions, namely oxidizing materials and oxidized organic materials. An oxidizing material is defined as an oxygen-containing substance that can cause other substances to burn. For example, fertilizers that contain ammonium nitrate and bleach. Oxidized organic matter is an unstable organic substance that can cause fire or react dangerously with other substances.

6. Toxic Materials and Infectious Materials

In toxic materials and infectious materials consists of two divisions, namely 1) toxic materials, and 2) infectious materials. Toxic materials are liquid objects or in dangerous when inhaled, ingested, or absorbed through the skin. For example pesticides, cyanide, and nicotine, while infectious substances are substances that contain live microorganism that can transmit diseases to plant animals, or humans. Examples are viruses and bacteria.

7. Radioaclyst Materials

Radioactive materials in the framework of transportation safety are divided into three categories according to the level of radiation ability. In addition to being included in the seventh class of transportation of radioactive materials is also recommended by

the IAEA (No name, 2021)₂ in *regulations for the safe of radioactive materials* (TS R-1).

8. Corrosive Materials

Corrosive material is a material that can cause visible damage to the skin or surface of an object, and can damage other payloads or aircraft structures. Examples are battery batteries and mercury.

9. Other Hazardous Materials and Goods

Miscellaneous dangerous goods are goods that pose a danger at the time of transportation process that cannot be classified into hazardous materials and goods according to the first to eighth class. Examples are dry ice and lithium batteries. The classification of hazardous materials and/or goods recommended in the Regulatory Model by UN SCoETDG was then used as a reference by ICAO in drafting Chapter 3 of Annex 18 on Its Classification and Technical Instructions and by IATA in compiling iata-DGR. The definition of charge in air transport only includes all living objects and *inanimate* objects that can be objects of commercial transactions only. The concept used to define this content is taken from the Warsaw Convention of 1929, the Montreal Convention of 1999, and Article 1.4. General Conditions of Contract IATA. It can be stated what is meant by the cargo of materials and or dangerous goods on aircraft in this article is everything that can be the object of commercial transactions that fall under the classification of materials and or dangerous goods as nine classes of materials and or dangerous goods are recommended in the SCoETDG.

Airline Duties and Obligations to Civil Aviation Safety for Hazardous Materials and Goods In Aircraft

In addition to air transportation there is a reciprocal agreement orally or in writing between airlines binding agreements with passengers or shippers. The airline binds itself to transport passengers and/or goods, while passengers and/or freight forwarders bind themselves to pay the fare. transportation as a return for service. Passengers and/or freight forwarding must pay air transportation fares which are a right for the airline and vice versa the airline has an obligation to transport passengers and/or goods to their destination safely, therefore if the passenger and/or goods do not arrive at their destination safely then the airline is responsible for indemnifying the passengers and/or goods.

Every procurement of air transportation must have a great risk of loss due to the result of an accident that further has an impact on legal consequences. This risk is especially related to the provision of compensation losses to airline service users who suffer losses for a form of *legal liability (legal liability)* of the airline company (H.K Martono, 2007, h.78).

The Government has issued a regulation in the form of Government Regulation No. 3 of 2001 on Aviation Safety and Security, explaining in Article 58 that:

1. Hazardous materials and/or goods to be transported by aircraft shall meet the conditions of transport of hazardous materials and/or goods.
2. The air transport company shall notify the Airman Captain if there are hazardous materials and/or goods transported by aircraft.
3. Hazardous materials and/or goods referred to in paragraph (1) that cannot be transported, are stored in storage areas provided specifically for the storage of dangerous goods.
4. If at the time of placement on the aircraft there is damage to the packaging, label, then the hazardous materials and / or goods in question must be removed from the aircraft.

That the transport agent handling hazardous materials and/or goods to be transported by aircraft shall obtain an endorsement from the air freight company. The transporting agent shall carry out inspection, packaging, labeling and storage of hazardous materials and/or goods in accordance with applicable provisions. (Article 59 of Government Regulation No. 3 of 2001 on Aviation Safety and Security).

Airline Responsibility for Civil Aviation Safety for Hazardous Materials and Goods In Airplanes

The implementation of flights must be able to provide safety guarantees for users of a country's aviation services. In this regard, the policies developed include: (Hasim Purba, 2010, h.128) (a) Development of safety systems in the field of air transportation. (b) The socialization of any policy established by governments and international institutions relating to safety in the air room. (c) Fulfillment of aviation safety facilities and infrastructure in accordance with International aviation standards.

When carrying out flight activities, the problems that occur do not escape the problem of flight security. To provide a sense of security to passengers, the government also made a rule regarding the national aviation security program made in the Minister of Transportation Regulation No. 127 of 2015 concerning the National Aviation Security Program. The purpose of the establishment of the national aviation security program is, among others, as follows: (Aflah and Zulfi Chairi, 2017, h.8-9)

1. To protect the safety, regularity and efficiency of aviation in Indonesia through the provision of regulations, standards and procedures and necessary protection for passengers, aircrew, personnel on the ground and the public from unlawful acts;
2. To maintain airport security measures and air freight that provide flight services in Indonesia;
3. To protect domestic flight operations from unlawful actions taken based on security risk assessments;

Regarding the responsibility of airlines for passengers can be seen in The Minister of Transportation Regulation No. 77 of 2011 Chapter II on the type of air transport accountability and the amount of compensation. Article 2 says carriers using aircraft shall be liable for losses to: Passengers dying, permanently disfigured or injured; Lost and damaged cabin baggage; Destroyed, or destroyed checked baggage; Destroyed, or

damaged cargo; Air freight delays, and losses suffered by third parties. Therefore the responsibility of the airline in this case the airline is to start up to the downing of aircraft passengers.

The limit of accountability of airline companies is regulated in The Minister of Transportation Regulation No. 77 of 2011 concerning Airline Responsibility which is contained in Article 18, which states "Airline accountability to passengers starts from passengers skipping airport lounges to planes until passengers enter the arrival terminal at the destination. Airline liability for baggage ranging from the airline has received baggage at the time of *reporting (check-in)* until the passenger receives the bag. The airline's liability for cargo starts from who sends goods getting a copy of the air cargo letter from the carrier until the time specified as the limit taken in accordance with the air cargo letter (*airway bill*).

Against passengers the responsibility that must be carried out by the airline company is regulated in the Law of the Republic of Indonesia Number 1 of 2009 concerning Aviation and regulated more specifically in the Regulation of the Minister of Transportation No. 77 of 2011 concerning the responsibility of air freight carriers. The regulation states that the responsibility of the airline to passengers must be carried out as a condition for carrying out air transportation. In the regulation also mentioned the limits of the responsibility of the carrier, mandatory insurance responsibility of the carrier, the terms and procedures for filing compensation and nominal that must be paid if the passenger experiences an accident and so on (IKomang Gede Indra Dwipayana, Luh Putu Sudini and Desak Gede Dwi Arini,2020, h.70).

The insurance agreement contains the principle that the incurred will get compensation claims from the insurer maximum amounting to losses suffered, liability that is legally to be paid or the loss of expected income. In general insurance or misfortune, insurance coverage is intended to provide compensation that can cover people who are financially covered no more profitable because there is something guaranteed in the insurance agreement that belongs to insurance, indemnity is the purpose that insurance is a transfer of risk. Diverting the risk that may occur or be lived by those who are borne from an event that is not expected and will not necessarily happen.

Basically, if there is an accident, there are 2 (two) possibilities, which are: The passenger remains alive and / or suffered injuries / defects, or the passenger died. By looking at the 2 (two) possibilities, it will be determined by the parties who are entitled to demand compensation to the carrier, namely: (Retno Puspandari, 2017, h.99) Aircraft that have an accident or event that is limited to having a relationship with the airline is paid a loss of Rp. 1,250,000,000,- per passenger. For passengers who died as a result of an event that is limited to being in the waiting room the airport will go to the plane or during the process of getting off the plane to the arrival room of the airport is directed or the transit airport is given compensation worth Rp. 500,000,000,- per passenger; For passengers who have permanent disabilities, such as passengers who are sentenced to total permanent disability by doctors still within a period of 60 (sixty)

working days since the accident is given compensation worth Rp.1,250,000,000-per passenger; (Regulation of the Minister of Transportation No. 77 of 2011 and Article 3 letter (b) or (c) Regulation of the Minister of Finance N0. 37 / PMK-010 / 2008).

Based on Article 43 of Government Regulation No. 3 of 2000 concerning Changes to Government Regulation No. 40 of 1995 on Air Transport, compensation for:

1. Passengers died amounting to Rp. 40,000,000,- per person;
2. Maximum injuries amounting to Rp. 40,000,000,- per person;
3. Suffering from permanent disability maximum Rp. 50,000,000,- per person.

Passengers who suffer from Iuka-Iuka injuries and must be treated on outpatient or hospitalized, or treatment hall will be given compensation worth the correct discharge maximum of Rp. 200,000,000- per passenger. Article 4 of the Minister of Transportation Regulation No. 77 of 2011 also regulates what cannot be reimbursed by the carrier who in this case is the airline, namely: The airline has no responsibility for losses due to loss or damaged cabin baggage, unless the passenger can show evidence that the loss is disputed by the airline or its employees If the passenger is proven to be acceptable to the airline or on the basis of The court's decision that has permanent legal force (*inkracht*) is said to have been wrong, then the compensation is set at the highest according to the loss of passengers (IKomang Gede Indra Dwipayana, Luh Putu Sudini and Desak Gede Dwi Arini, 2020, h.70).

The provisions of the article have the purpose that the carrier is aware of the risk of liability or obligations that must be carried out as the implementation of the transportation agreement. The principle of responsibility in this provision is a principle of absolute responsibility (*strict liability*), because in the explanation of article 141 paragraph (1) of Law No. 1 of 2009 and Article 2 of the Regulation of the Minister of Transportation of the Republic of Indonesia Number 77 of 2011 above does not explain about the elements of the burden of proof or error.

CLOSURE

Conclusion

That it is said that a dangerous item is a material or substance that can potentially endanger health, safety or property if transported by aircraft and the danger posed will result in safety. That the duties and obligations of airlines to the safety of civil aviation for hazardous materials and goods in aircraft in this case the transport agency handling hazardous materials and/or goods to be transported by aircraft shall obtain an endorsement from the air freight company. The transporting agent shall carry out inspection, packaging, labeling and storage of hazardous materials and/or goods in accordance with applicable provisions. Regarding the responsibility of airlines for passengers can be seen in The Minister of Transportation Regulation No. 77 of 2011 Chapter II on the type of air transport accountability and the amount of compensation. Article 2 says carriers using aircraft shall be liable for losses to: Passengers dying, permanently disfigured or injured; Lost and damaged cabin baggage; Destroyed, or destroyed checked baggage; Destroyed, or damaged cargo; Air freight delays, and

losses suffered by third parties. Therefore the responsibility of the airline in this case the airline is to start up to the downing of aircraft passengers.

Suggestion

The need to provide more in-depth socialization to airlines about the importance of security and safety against dangerous goods. To the Government and the general public in the use of aircraft must jointly and cooperate in carrying out aviation safety regulations or procedures so that safe, comfortable, orderly and controlled flights can be realized.

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