



## Sanitation of Ro-Ro vessel at the port of ferry branch Merak Banten – Indonesia<sup>☆</sup>



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### KEYWORDS

Ship sanitation;  
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**Abstract** Ship Sanitation is one of the efforts to overcome several factors of the physical environment that are needed for the main creatures' things that have the damaging effects of physical development, health, and survival. What is done on a transport device that uses a machine or screen that travels nationally or internationally. This type of research uses descriptive methods with a sample of all Ro-Ro vessels at the Merak Ferry Port of 20 ships. Data collection using ship sanitation observation sheets. The results of the study with univariate analysis showed the condition of kitchen sanitation on Ro-Ro vessels which were categorized as not meeting the requirements of 55%, the sanitary conditions of the food raft room category fulfilled the requirements of 85%, the sanitation conditions 80%, the physical conditions of drinking water 100%, the sanitation requirements of the facilities 70% medical, Ro-Ro ship sanitation requirements do not meet the requirements of 53%. Through this research, the authors expect the efforts of related parties to improve the sanitation of Ro-Ro vessels to be safe by increasing sanitation production of clean and healthy Ro-Ro ships.

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### Introduction

International Health Regulation 2005 (IHR),<sup>1</sup> a ship is a conveyance that can sail using engines or sails that travel nationally and internationally. The port of the Merak crossing port used for the Sunda Strait crossing is the Ro-Ro Ship. Ro-Ro ship is a ship that can load vehicles moving in or out with its movement (*Roll on Roll off*). Ro-Ro ships are used to transport trucks, cars, motorbikes and pedestrian passengers on a national (domestic) scale. Ro-Ro vessels operating

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**Table 1** Sanitary conditions of Ro-Ro vesseles.

No.	Overview of Ro-Ro ship kitchen sanitation	(n)	%
1.	Not eligible	11	55
2.	Qualify	9	45
Total		20	100
No.	Overview of Ro-Ro ship kitchen sanitation	(n)	%
1.	Not eligible	11	55
2.	Qualify	9	45
Total		20	100
No.	Overview of sanitary rooftop Ro-Ro ship food raft	(n)	%
1.	Not eligible	3	15
2.	Qualify	17	85
Total		20	100
No.	Overview of sanitary ware Ro-Ro ships	(n)	%
1.	Not eligible	9	45
2.	Qualify	11	55
Total		20	100
No.	Overview of Ro-Ro ship bedroom sanitation	(n)	%
1.	Not eligible	4	20
2.	Qualify	16	80
Total		20	100
No.	Overview of Ro-Ro ship medical facilities	(n)	%
1.	Not eligible	6	30
2.	Qualify	14	70
Total		20	100
No.	Overview of Ro-Ro ship sanitation	(n)	%
1.	Not eligible	11	55
2.	Qualify	9	45
Total		20	100

the Merak-Bekauheni crossing are the most congested sea transportation facilities in Indonesia, the large number of Ro-Ro ship crossing service users needs to be followed by good service especially on ship sanitation so that users of these crossing services are not affected by poor environmental sanitation on the ship.<sup>2</sup>

Therefore, to achieve a healthy ship condition and be able to prevent the entry and exit of quarantine and certain infectious diseases to passengers, efforts should be made to improve ship sanitation and carry out continuous supervision to ensure the sanitation of the vessel has been carried out properly. Basically, supervision is carried out for all ships entering the port area, but in this case only on Ro-Ro ships at the Merak crossing port.<sup>2</sup>

## Method

This research was conducted to determine the sanitary conditions of Ro-Ro vessels at the Merak Ferry Port of Banten which were carried out in March–May 2019. This research was conducted because there was still an increase in sanitary

hygiene of ships that did not meet the requirements and vector vectors on the Ro-Ro vessels were still found at the Ferry Port of Merak, Banten, Indonesia Branch. This study uses descriptive methods, this study uses primary and secondary data, where primary data is obtained from the observation sheet of sanitary hygiene forms and secondary data obtained from the annual report of the Class II Port Health Office of Banten. Data analysis uses univariate analysis.<sup>3</sup>

## Result and discussion

Based on the results of the field research shows that sanitation of the Ro-Ro ferry crossing port of PT. ASDP Indonesia Ferry Merak Branch of Banten in 2019 in the highest category, namely ships in the category that did not meet the requirements (55%), while in the lowest category, ships in the category of sanitation were eligible (45%). Ro-Ro ships in the category of sanitation that do not meet the requirements are found in the sanitation variable categories of the kitchen, food raft room, warehouse, sleeping room, and medical facilities.<sup>4</sup>

This is because of the results of the study found vector life. Based on the International Health Regulation (IHR) market 27, it is explained that there should not be any vector in the ship's conveyance. If the sanitation inspection of the ship is found to be a risk factor for public health such as vectors and disease-carrying animals that can cause disease in humans, if there is a vector life, the vessel must be made healthy, such as fumigation, disinfecting or disinfecting (Table 1).<sup>5</sup>

1. Out of 20 Ro-Ro vessels, as many as 11 ships (55%) have kitchen sanitation in the category not eligible.
2. Out of 20 Ro-Ro vessels, as many as 17 ships (85%) have sanitation food raft room with the category eligible.
3. Of the 20 Ro-Ro ships, as many as 11 ships (55%) have warehouse sanitation (food supplies) in the category of eligible.
4. Out of 20 Ro-Ro vessels, 16 vessels (80%) have sleeping space sanitation (ship crews) with the category eligible.
5. Of the 20 Ro-Ro vessels, as many as 14 vessels (70%) have medical facilities in the category of qualifying.
6. Of the 20 Ro-Ro ships, as many as 11 ships (55%) have sanitary vessels in the category not eligible.

Shipowners can continue to provide guidance or education about the importance of sanitation of ships and how to create good sanitation of ships so that no more sanitary vessels are in a bad category.

The government does not provide a health quarantine permit or one permission to sail if sanitation is found on Ro-Ro ships in the bad category.

The shipowner supervises the water supply businessman on the Ro-Ro ship.

The government supervises the supply of medicines so that there is no supply of drugs that has passed the expiry date.

## Conflict of interest

The authors declare no conflict of interest.

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