Central Nautical Management
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Policy Department
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Ch. of Comm. no.: NL 57398879

NON AUTHORITATIVE TRANSLATION
Warning: *Notwithstanding great care has been taken in translating the Dutch exemption document, differences between the English and Dutch text may occur.*
In cases of disputes or discrepancies the Dutch text shall prevail.

Decree No. 2021/45

Decree adopting the Combined Lockage Regulation for Zeesluis IJmuiden

The Director of the Central Nautical Management North Sea Canal Area

Having regard to:

- article 4.84 of the Algemene Wet Bestuursrecht (the Dutch General Administrative Law Act);
- article 3.14 of the Binnenvaartpolitiereglement (the Dutch Inland Navigation Police Regulations (BPR);
- article 6.28 of the Binnenvaartpolitiereglement (the Dutch Inland Navigation Police Regulations (BPR); and,
- article 10.04 in conjunction with Appendix 12 of the Binnenvaartpolitiereglement (the Dutch Inland Navigation Police Regulations (BPR); and
- the working agreements between Rijkswaterstaat and the Central Nautical Management North Sea Canal Area (Working agreements between the Chief Engineer and Director of the Directorate-General for Public Works and Water Management (Rijkswaterstaat) Western Netherlands North and the Director of the Public Body Central Nautical Management North Sea Canal Area) concerning the execution of tasks in the North Sea Canal Area, updated in 2016, version May 2017.

Having considered that:

- the Director of the Central Nautical Management North Sea Canal Area, by order of the Director-General for Public Works and Water Management (Rijkswaterstaat) has been mandated for the lockage process of the North Sea locks at IJmuiden;
- there are no legal provisions for the simultaneous, combined lockage of seagoing ships with and without dangerous goods;
- there are no legal provisions for the simultaneous, combined lockage of seagoing ships and inland ships with and without dangerous goods;
- the report *Samenschutregeling Zeesluis IJmuiden, veiligheidaspecten* (combined lockage regulation, safety aspects), dated 21 June 2021, indicates that escalation scenarios can be excluded by prohibiting certain combinations of ship types from the combined lockage process; the probability of escalation scenarios can be further reduced by maintaining a minimum distance between ships during the combined lockage process. Prohibiting ship types from the combined lockage process removes the risk of escalation (risk elimination). A minimum distance reduces the probability of escalation (risk management);
- the purpose of the combined lockage regulation is to ensure that lock passages in which two or more ships are locked through simultaneously can be carried out safely, in an environmentally responsible manner, and as efficiently and smoothly as possible.
- the motive of this regulation is to prevent or limit any nuisance or danger to shipping traffic during lock passages in which two or more ships are locked through simultaneously.

Has decided the following:
I.
To adopt the combined lockage regulation for Zeesluis IJmuiden. This regulation has been included in the Appendix to this Decree.

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II.
This Decree enters into force on the November 15th, 2021.
This Decree will be published as an Announcement to Shipping IJmond North Sea Canal Area Central Nautical Management (BASIJN).

III.
This Decree may be cited as ‘Combined Lockage Regulation Zeesluis IJmuiden 2021’.

Thus established on behalf of the Director-General for Public Works and Water Management (Rijkswaterstaat) on 8 November 2021.

The Director of the Central Nautical Management North Sea Canal Area

J.H.M. Mateyo

Appendix: Combined Lockage Regulation Zeesluis IJmuiden

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In this combined lockage regulation, the following definitions apply:

a. dry cargo ship carrying dangerous goods which, under BPR 10.04, are not required to exhibit the prescribed shapes and lights: a seagoing ship carrying dangerous goods which do not fall under the scope of Annex 12 of the Inland Navigation Police Regulations (BPR);
b. dry cargo ships carrying dangerous substances which, under BPR 10.04, are required to exhibit the prescribed shapes and lights: A seagoing ship carrying dangerous substances as referred to in Annex 12 of the Inland Navigation Police Regulations (BPR);
c. gas tanker: A seagoing ship intended for the carriage of gases under pressure or of refrigerated gases;
d. other ships not carrying dangerous goods: All ships not falling under a., b., c., e., or f.;
e. passenger ship: Any ship, including a cruise ship, carrying one or more passengers and holds adequate and valid certificates; and;
f. tanker: A seagoing ship built for or adapted for the carriage of liquid cargo in bulk in its cargo tanks;

Dry cargo ships carrying dangerous substances which, under BPR 10.04, are required to exhibit the prescribed shapes and lights (in accordance with Appendix 12 of the Inland Navigation Police Regulations):

1. Substances of Class 1, hazard groups 1.1 and 1.5, if the ship is carrying more than 100 kg gross weight;
2. Substances of Class 1, hazard groups 1.2, 1.3, 1.4, 1.6, or substances of Class 5.2; the latter in so far as, under the IMDG Code, they are required to bear the danger label Explosive'', if the ship is carrying more than 1000 kg gross weight in total; or
3. Substances of Class 2, which under the IMDG Code are required to bear the danger label ‘Toxic’, if the ship is carrying more than 1000 kg gross weight.

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	Passengers Ships	**Gas tankers**	**Tankers**	**Dry cargo ships carrying dangerous goods which, under BPR 10.04, are required to exhibit the prescribed shapes and lights**	**Dry cargo ships carrying dangerous goods which, under BPR 10.04, are not required to exhibit the prescribed shapes and lights**	**Other ships without dangerous goods**
Passenger ships	NR	X	X	X	X	NR
Gas tankers	X	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides
Tankers	X	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides
Dry cargo ships carrying dangerous goods which, under BPR 10.04, are required to exhibit the prescribed lights and shapes	X	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides
Dry cargo ships carrying dangerous goods which, under BPR 10.04, are not required to exhibit the prescribed shapes and lights	X	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides
Other ships without dangerous goods	NR	10 metres on all sides	10 metres on all sides	10 metres on all sides	10 metres on all sides	NR

Legend

NR No restrictions.
X Prohibition to combine ships in the same simultaneous lockage process.
No ships within 10 metres on all sides.

Ships may be combined in the same simultaneous lockage process whereby ships may not be moored alongside each other and a distance of 10 metres between them must be maintained. The 10 metres are measured as shown in the figure below.

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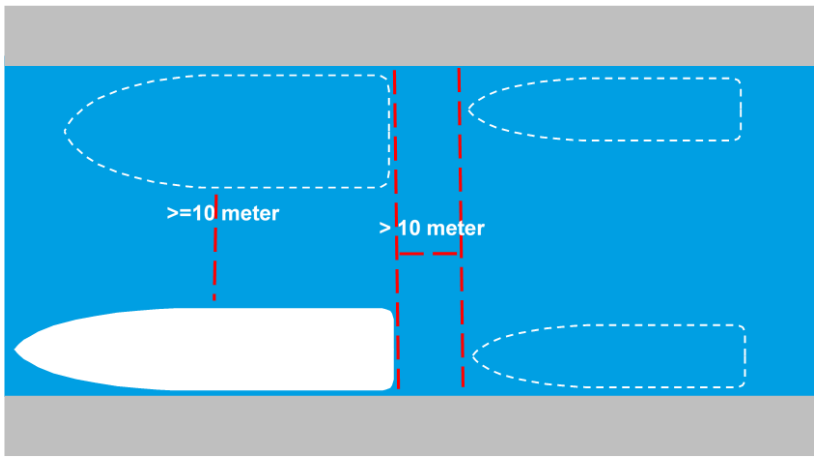

Measurement of distances before or behind (left) and on all sides (right)

- If distances are more than 10 metres, the lockage arrangement may be decided by the lock master;
- If distances are less than 10 metres, the lockage arrangement must be decided by the Operations Manager.

The following applies to the lockage process of warships and defence ships:
The combined lockage regulation does not apply to warships, naval auxiliaries, or other ships owned or operated by a Member State and used for non-commercial public service.

The following regulations apply to the combined lockage of seagoing ships and inland ships which, under BPR 3.14, are required to exhibit the prescribed shapes and lights:

- the combined lockage of seagoing ships and inland ships which, under BPR 3.14, are required to exhibit the prescribed shapes and lights is only possible if it concerns an inland ship exhibiting one blue cone or one blue light and if a minimum distance of 10 metres between them is observed;
- the combined lockage of seagoing ships and inland ships which, under BPR 3.14, are required to exhibit the prescribed shapes and lights is not possible if it concerns an inland ship exhibiting two or three blue cones or two or three blue lights.

The requirement for inland ships to exhibit the prescribed shapes and lights is laid down in Article 3.14, paragraphs 1, 2 and 3, of the Inland Navigation Police Regulations (BPR).
The following additional signs must be carried by ships carrying certain dangerous goods:

1. A ship carrying specific combustible substances as referred to in the ADN, No. 7.1.5.0 or No. 7.2.5.0 is required to exhibit the following additional signs to indicate this:
   a. at night: a blue light;
   b. by day: a blue cone point downwards.
2. A ship carrying specific substances as referred to in the ADN, No. 7.1.5.0 or No. 7.2.5.0 is required to exhibit the following additional signs to indicate this:
   a. at night: two blue lights;
   b. by day: two blue cones points downwards.
3. A ship carrying explosive substances as referred to in the ADN, No. 7.2.5.0 is required to exhibit the following additional signs to indicate this:
   a. at night: three blue lights;
   b. by day: three blue cones points downwards.

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Explanation
The reason seagoing and inland ships pass through the North Sea locks at IJmuiden is to enter the North Sea Canal and the ports in the North Sea Canal Area - the area of the Central Nautical Management (CNB) - for loading, unloading or repairing. All types of ships - with and without dangerous goods - pass through the locks. A combined lockage regulation for the North Lock and Middle Lock was drawn up on 19 December 2018 (see Notification No. 2018/012 of the Harbour Master's Division at https://www.portofamsterdam.com/sites/default/files/2021-02/Samenschutten met binnenvaart 1_2.pdf

According to this Notification, a separate combined lockage regulation was planned to be drawn up for Zeesluis IJmuiden. This Decree gives the concrete details of this. A separate combined lockage regulation for Zeesluis IJmuiden was deemed necessary because the larger dimensions of this lock would offer more combined lockage options than the smaller dimensions of the IJmuiden North Lock. So there would be more space to combine a number of different ships with and without dangerous goods in the same simultaneous lock passage. However, the question was whether, from a safety point of view, the space in the lock could be used for combined lock passages with ships loaded with and without dangerous goods.

Rijkswaterstaat and the Director of the Central Nautical Management North Sea Canal Area consider it important that ships can pass through the lock together safely and in a responsible way. The combined lockage regulation is also aimed at the prevention of damage to Zeesluis IJmuiden. This is because the lock has two important main functions. The lock firstly functions as a flood defence structure; its second function is to allow shipping traffic to pass through the lock to and from the ports in the Central Nautical Management area.

For the drawing up of the combined lockage regulation, an information-led and risk-oriented approach has been used. The investigation for the combined lockage regulation has been carried out by research agency Adviesgroep AVIV B.V. Its report *Samenschutregeling Zeesluis IJmuiden, veiligheidaspecten* (Combined lockage regulation, safety aspects) was published on 21 June 2021. According to the report, there are two types of possible causes for the unintentional release of dangerous goods:
1. Intrinsic failure of the shell or packaging of products; and
2. Failure of the shell or packaging of products as a result of a collision between ships or between a ship and the infrastructure.

Intrinsic failure may be the spontaneous breaking of a ship, leaking containers, broken welds in tanks, or blown-out gaskets in flange connections. These failures can happen anywhere and at any time, such as at the start of the voyage or during the voyage or during mooring; and thus also during lock transit at Zeesluis IJmuiden. According to the report, the probability of intrinsic failure per lock transit is less than 10^{-9} and therefore negligible.

Failures of Zeesluis IJmuiden due to collisions concern collisions between ships or between a ship and the infrastructure, such as with the lock wall or the lock gate. On average, ship-ship collisions and ship-infrastructure collisions have occurred once per year over the past 15 years. After analysis of the data, research agency AVIV concluded that these collisions have not caused any release of large quantities of dangerous goods. Besides, the impact energies during collisions are too low to cause the release of large quantities of dangerous goods. Tankers, moreover, are double-hulled.

The results of the investigation showed that there are no probability-based arguments to decide against combined lock passages of ships carrying dangerous goods.

The report indicated that the escalation risk can be:
- excluded by prohibiting certain combinations of ship types from the lockage process; or
- reduced by maintaining a minimum distance between certain ship types during the lockage process.

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On the basis of the report, a choice has been made for the combined lockage regulation for Zeesluis IJmuiden as included in the Appendix.
Combined lock passages of ships carrying dangerous goods are only possible if:

- A safety distance of 10 metres around the ships is maintained, and;
- Combined lock passages of ships carrying dangerous goods and passenger ships are prohibited.

The prohibition of combined lock passages with ships carrying dangerous goods and passenger ships carrying one or more passengers limits the effects if an accident scenario should occur. The reason for the prohibition of combined lock passages with passenger ships and other ships is that passengers on board a passenger ship are not there on a professional basis. Crews and lock staff are familiar with the lock and its surrounding area and are trained for emergency situations whereas passengers are not. Moreover, in the event of a calamity, it will be difficult, if not impossible, to evacuate passengers from a passenger ship at the North Sea lock complex.

For the purpose of the combined lockage regulation, a passenger ship without passengers is considered to be a ship without dangerous goods. If, however, such a ship does have dangerous goods on board, it will have to be determined whether it is a dry cargo ship carrying dangerous goods with the requirement to exhibit the prescribed shapes and lights or a dry cargo ship carrying dangerous goods without the requirement to exhibit the prescribed shapes and lights.

The use of safety distances only makes sense for smaller and more realistic scenarios and contributes to a further reduction of the already very small probability of domino-effect scenarios. Moreover, the adopted combined lockage regulation is practicable and in line with the combined lockage regulation for the IJmuiden North Lock and Middle Lock and is easy to apply by the Operational Department.

The combined lockage regulation for Zeesluis IJmuiden will be included in the next update of the working agreements between Rijkswaterstaat and the Central Nautical Management.

The combined lockage of inland ships has been provided for by law in accordance with article 6.28 of the Inland Navigation Police Regulations (BPR). However, combined lockage of seagoing ships or of seagoing ships and inland ships has not been provided for by law. This legal gap has been filled with the adoption of the present combined lockage regulation.