THE DUTCH SAFETY BOARD

SUMMARY

Collision between ferryboat and barge on the Rijn-Schie canal in Rijswijk

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31 January 2012

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The aim in the Netherlands is to reduce the risk of accidents and incidents as much as possible. If accidents or near-accidents nevertheless occur, a thorough investigation into the causes of the problem, irrespective of who is to blame for it, may help to prevent similar problems from occurring in the future. It is important to ensure that the investigation is carried out independently from the parties involved. This is why the Dutch Safety Board itself selects the issues it wishes to investigate, mindful of citizens' position of dependence with respect to public authorities and businesses. In some cases, the Dutch Safety Board is required by law to conduct an investigation.

	Dutch Safety Board		
Chairman:	T.H.J. Joustra Annie H. Brouwer-Korf F.J.H. Mertens E.R. Muller J.P. Visser		
General secretary:	M. Visser		

Visiting address:	Anna van Saksenlaan 50 2593 HT The Hague, The Netherlands	Correspondence address:	PO Box 95404 2509 CK The Hague
Telephone:	+31 (0)70 333 7000	Fax:	+31 (0)70 333 7077
Internet:	www.safetyboard.nl		

This report is published in Dutch and English. In the event of any discrepancy between these versions, the Dutch text shall prevail.

CONSIDERATION

In the early morning of 31 January 2012 at around 07.50, a collision occurred on the Rijn-Schie canal in Rijswijk involving the ferryboat Keereweer and the barge Reinod 15. The ferryboat was undertaking a crossing with four passengers and the skipper on board, when the Reinod 15, en route to The Hague, approached it. The skipper of the Reinod 15 saw that the ferryboat started a crossing, and put its engine into reverse. The skipper of the ferryboat did not realise that the barge was approaching until he was warned by a passenger. By then, the Reinod 15 was so close that a collision had become unavoidable. Two of the ferryboat's passengers went overboard, but did not sustain any injuries. Also, the damage to both vessels was minimal. This was a fortunate outcome, but the collision was still very worrying for all the ferryboat's users, mainly residents of the municipality of Rijswijk.

Around 270 ferryboats are in operation in the Netherlands, carrying on average nearly 90,000 people, bicycles and vehicles on crossings every day. These ferryboats are an important means of transport for many commuters, students and leisure passengers. Many of these ferryboats are ferryboats like the Keereweer: foot ferries and other small ferryboats, also known as bike/foot ferries. Every day, an average of around 25,000 people is carried on crossings by these small ferryboats. The Dutch Safety Board wanted to look into the incident in Rijswijk to see if any lessons could be learned from it for the benefit of other commissioning parties and operators of similar bike/foot ferries.

The ferry service on the Rijn-Schie canal dates back to the early 20th century. It is an important crossing for cyclists and pedestrians, particularly students and local residents. In the second half of 2011, the Keereweer carried an average of 1,200-1,300 passengers every week. In early 2011, the municipality of Rijswijk decided that operating the Keereweer had become too expensive. It proposed operating the ferryboat from July 2011 at peak times only, outside of school holidays. Local residents and other users protested strongly against this proposal. The municipality reconsidered the proposal and began looking for less expensive ways of operating the service. The municipality found a company that was prepared to operate the ferry at a lower cost. As a result of this change of operator, the regular skipper was replaced with a new crew. This, too, led to local protests. In late December 2011, the outgoing skipper made his final crossing, and on 9 January 2012, the new operator launched the service with a new crew.

The Dutch Safety Board decided to investigate this incident because it involves a form of public transport. Passengers using public transport entrust their safety to the transport operator. They must be able to rely on that operator for safe transport. Commissioning parties and operators therefore need to adequately manage the safety risks of their passengers. For that reason public transport is a focal point for the Dutch Safety Board. An initial analysis of how this incident occurred raised the question of whether the safety risks had been properly managed. The fact that a new operator had been brought in three weeks prior to the incident was an important factor.

The investigation focuses on the way in which safety risks in the operation of the ferryboat were managed. The occurrence of the incident is described in the report, but the analysis does not further elaborate its direct causes.

The operation of the Keereweer in the municipality of Rijswijk
The municipality commissioned the construction of the ferryboat several years ago from a well-known shipbuilder, in accordance with the Inland Waterway Vessels Decree (*Binnenschepenbesluit*) in force at the time. The municipality also had the ferryboat certified at that time, and fitted with safety equipment. Neither of those measures were a statutory requirement. In December 2011, before the new operator and new skipper took over, the municipality set out a number of requirements in the tendering contract with which the appointed skipper would need to comply. This included a requirement for the skipper to hold a certificate for operators of pleasure craft (*klein vaarbewijs*) and an SCC (Safety, Health and the Environment Checklist Contractors) diploma.

Before taking over in January 2012, the new operator had the new skipper practise with the outgoing skipper for a few hours and with a mechanic from the new operator for a couple of days. The operator also appointed a second skipper who would accompany the new skipper for several weeks.

The new skipper began work in January 2012. For the first few days he sailed without passengers, to give him practice. He had not yet begun training for his certificate for operators of pleasure craft, and he had no experience in operating a small ferryboat. The mechanic with whom he had spent a couple of days practising when the new operator took over did hold the certificate, and did have experience in operating a pleasure craft, but had not previously operated a ferryboat. The second, temporary skipper also had experience operating pleasure craft, but was equally inexperienced in transporting passengers and operating a ferryboat. In addition, after the first few days of operation the second skipper was not continuously present on board the ferryboat. He spent part of his time in the waiting hut on the bank, rendering him unable to intervene if needed. Indeed, he was not present aboard the ferryboat at the time of the collision.

The first step in effectively managing safety risks is to inventory the risks and come up with appropriate preventive measures. Other than the requirements for the skipper, the municipality's contract with the operator does not set out requirements to ensure a safe operation of the service. No written agreements are in place defining any external circumstances or structural conditions of the ferryboat itself which might prevent the service from operating. The municipality did consider possible measures, but these were not based on an inventory of the potential safety risks involved in passenger crossings (such as the risk of a collision, or of a passenger going overboard). As a result, the measures that were taken by the municipality and operator were not effective. The SCC diploma has limited value for a ferryboat skipper. The certificate for operators of pleasure craft focuses on acquiring theoretical understanding and does not require practical skill and experience. Having a mechanic accompany the skipper on crossings may have helped the skipper get up to speed with the ferryboat's technical systems, but would not necessarily have helped him in learning how to assess safety risks. Having a second skipper can be useful for sharing tasks during the crossing, but if the second skipper is equally inexperienced in passenger crossings by ferryboats, there is no guarantee that he could help identify and assess the safety risks associated with passenger crossings by ferryboats.

The municipality, as the commissioning party, had a supervisory role. That supervision, however, did not focus on the requirements set out by the municipality itself. For instance, the municipality did not pick up on several structural changes, the ferryboat's original safety equipment turned out to be inadequate, and the operator did not adhere to all the requirements set out in the tender.

Taking all this into account, the Dutch Safety Board finds that in appointing the new operator, the municipality failed to give due attention to the specific safety risks involved in passenger crossings.

The new operator also failed to pay due attention to the specific safety risks involved in transporting passengers by ferryboat. As such, it was not ensured that the ferryboat was operated by a crew who was sufficiently skilled and experienced in identifying and managing potential safety risks. It is up to operators to ensure that a vessel's crew is capable of carrying out its task, in this case the safe transport of passengers. That responsibility stems partly from the Working Conditions Act. Strictly speaking, a skipper is also personally responsible for the safety of his passengers and of the vessel. However, the Dutch Safety Board is of the opinion that in the event that an employer tasks an employee with a job for which that employee is insufficiently trained or qualified, and for which he has not had the opportunity to acquire the necessary skills, the employee is not able to fulfil this responsibility.

Lessons for the operation of small ferryboats in the Netherlands

The Dutch Safety Board also wanted to investigate if what could be learnt from the incident in Rijswijk might also benefit other municipalities which operate similar bike/foot ferries.

For the operation of small ferryboats general water traffic rules are in force, but there are no technical or specific rules for passenger transport. The Safety Board notes that there are actually more technical requirements for pleasure craft and small boats such as dinghies than there are for small ferryboats used in public transport. This lack of specific requirements means that individual municipalities set their own rules and regulations, or not, as the case may be. Ferry services in the municipalities questioned therefore differ in how they crew ferryboats and in the requirements they set up for operators. There is also a diversity in safety requirements for ferryboats, crew, and the operation of the services. The actual commissioning of a ferryboat service is often carried out within a municipality by a department which is also responsible for a variety of unrelated tasks such as managing public spaces. There is no guarantee, then, of such departments' sufficient technical expertise in small ferryboats or the safety risks associated with operating them. It is up to municipalities themselves to ensure they have the required expertise, technical and otherwise, if they are to set out requirements.

The Safety Board is of the opinion that it is important that all parties involved bear responsibility for ensuring compliance with safety requirements. That does not necessarily require statutory regulations. It is about creating a framework of conditions by which parties can act responsibly; in this case, conditions that ensure the safe crossing of passengers. For commissioning parties, adherence to statutory regulations is no more than a possible starting point from which they could ensure the safe operation of such a service. The Safety Board expects commissioning parties to put their own measures in place to ensure safety, regardless of any statutory regulations that might apply. Broadly speaking, it comes down to assessing safety risks, taking measures to manage and limit those risks as much as possible, and setting up supervision to ensure that the task is performed safely.[1] In other words, the Safety Board takes the view that the municipality has a duty of care and must at all times be able to demonstrate to its residents that it is fulfilling its duty of care. The municipality may do this through the use of periodic reporting, for example.

It is not just the municipality that has a responsibility here; the operator does as well. It is up to the municipality to set requirements and ensure that the operator adheres to them. The operator needs to demonstrate that it is capable of performing the task at hand, and that it constantly ensures that that task is performed to the agreed standards. The operator holds that responsibility not just towards its passengers, but also towards its employees. The lack of statutory regulations means there is no national supervision of small ferryboats. This, however, does not exempt municipalities from their responsibility to organise such supervision themselves. Carrying out supervision and recording any outcomes is important because it provides the opportunity to learn and to improve safety. Municipalities can make this happen by setting out their own general requirements, for example by using local regulatory instruments (*Algemene Plaatselijke Verordening,* 'APV'), and ensuring that they are enforced. The municipality can also do that in its role as a commissioning party. In that case, it would be monitoring the proper (and safe) execution of an agreed form of public transport.

Final remarks
Municipalities and operators, as commissioning parties and contractors, each hold responsibility for safe passenger transport. That duty of care does not necessarily need to be set out in rules. On the other hand, the investigation did reveal (not just in the case of the municipality of Rijswijk, but with other municipalities too) a need for information and expertise to help assess the minimum standards that small ferryboats and their crews need to adhere to in order to safely transport passengers. There is also a demand to provide some key points that can help them with this, in the form of a checklist, for instance. This is partly because not all municipalities will have specific in-house expertise in this area.

In recent years, industry organisations have drawn attention to the fact that small ferryboats do not fall under statutory regulations and that therefore there is a lack of comprehensive supervision. Several of those bodies have now jointly come up with a draft guideline drawn up by the National Ferry Platform (*Landelijk Veren Platform*, 'LVP').

1 The Board understands safety risk assessment to include the identification and assessment of safety risks, preferably in writing.

Considering all the issues that commissioning parties and operators need to address, the Dutch Safety Board applauds initiatives like this, particularly if such a guideline addresses the safety risks to be managed. The Safety Board therefore emphasises the importance of immediate completion and implementation of this guideline. In terms of safety, it is crucial that this sector guideline addresses the training for the job of skippers, the construction, stability, equipment and condition of ferryboats, and the operation of transport services (including the conditions under which a ferryboat should not operate).

The majority of small ferryboats are commissioned by municipalities. In 2008, the Association of Netherlands Municipalities (*Vereniging van Nederlandse Gemeenten*, 'VNG') advised municipalities on the supervision of ferryboats. The VNG can play a part now too by supporting the LVP in establishing guidelines and raising awareness amongst its members (municipalities) of the importance of safety in operating ferryboats and of the role of commissioning parties in this.

The Dutch Safety Board therefore makes the following recommendations.

To the operator, AH Vrij:

1. Ensure that the safety risks associated with the operation of the ferryboat are managed as much as possible. In particular, focus on:

   - training the skipper for the job;
   - the construction, stability, equipment and condition of the ferryboat;
   - the operation of the ferryboat service.

To the municipality of Rijswijk:

2. Ensure that the safety risks associated with the operation of the ferryboat are set out in writing. Take measures to manage these risks as much as possible and monitor adherence. In particular, focus on:

   - training the skipper for the job;
   - the construction, stability, equipment and condition of the ferryboat;
   - the operation of the ferryboat service.

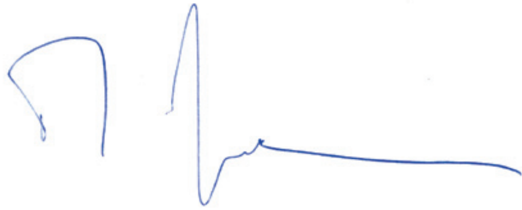
To the National Ferry Platform:

3. Ensure, in cooperation with other industry organisations, that the guideline for small ferryboats is established and made available to third parties. While taking into account local circumstances, ensure that the guideline focuses on:

   - training the skipper for the job;
   - the construction, stability, equipment and condition of the ferryboat;
   - the safe operation of the ferryboat service.

To the Association of Netherlands Municipalities:

4. Support the National Ferry Platform (LVP) in the establishment of the guideline for small ferryboats and raise awareness amongst your members about the importance of the safe operation of ferryboats, and of the role of commissioning parties in ensuring this.



T.H.J. Joustra
Chairman of the Dutch Safety Board

M. Visser
General Secretary

CONCLUSIONS

Factors that contributed to the incident:

- The municipality and operator had no written risk assessment in place. This made it difficult for them to take appropriate safety measures.
- During the tendering process, the municipality's attention for safety requirements was limited, and, apart from requirements regarding the capabilities of the skipper, it made no further requirements on the operator regarding operational safety.
- The municipality and the operator did address the induction of the new skipper, but that process did not focus enough on what a skipper needs to be able to do to safely navigate a ferryboat, and on the length of the induction period and practical training required.
- The operator failed to adhere to the requirements set out in the tender.
- The municipality failed to verify that the operator adhered to the requirements set out in the tender. When it emerged that the operator was failing to do so, the municipality did not take further action to address this.
- The municipality and the operator failed to adequately manage the safety risks associated with operating the ferryboat.

Other conclusions:

- Although such requirements do exist for recreational vessels and small boats such as dinghies, there are no statutory technical requirements for small ferryboats.
- The lack of rules and regulations for small ferryboats has led to inconsistency in the way that various parties fulfil their responsibility to ensure safety, and provides no assurance that certain minimum safety standards are adhered to.
- Various authorities, commissioning parties and operators are developing a draft guideline to ensure the safety of small ferryboats.

The Dutch Safety Board
telephone +31(0)70 333 70 00 • **e-mail** info@safetyboard.nl • **website** www.safetyboard.nl
visiting address Anna van Saksenlaan 50 • 2593 HT The Hague
postal address PO Box 95404 • 2509 CK The Hague • The Netherlands