



DUTCH
SAFETY BOARD

Summary

Safety and high-risk companies:

Lessons learned after Odfjell



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Dutch Safety Board

When accidents or disasters happen, the Dutch Safety Board investigates how it was possible for them to occur, with the aim of learning lessons for the future and, ultimately, improving safety in the Netherlands. The Safety Board is independent and is free to decide which incidents to investigate. In particular, it focuses on situations in which people's personal safety is dependent on third parties, such as the government or companies. In certain cases the Board is under an obligation to carry out an investigation. Its investigations do not address issues of blame or liability.

Dutch Safety Board

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Odfjell Terminals Rotterdam is a company in the Botlek that stores hazardous substances on a large scale. In 2012 the company faced an unmanaged safety situation, which led to a shutdown of the entire complex under pressure from the authorities. The Dutch Safety Board published a report in 2013 on Odfjell Terminals Rotterdam (OTR), safety during the 2000-2012 period. This report looked not only at the company and the safety deficiencies identified, but also at how the various government services and other parties surrounding OTR responded to the situation. In a series of recommendations made at that time, the Dutch Safety Board indicated those areas that could be improved, in addition to measures by the parties themselves. In 2016 the Board decided to investigate what action the relevant parties had taken in response to the recommendations, and the extent to which the safety issues had indeed been addressed. This report is the result of this investigation.

All aspects of the 'Odfjell case' have had a major impact on the sector that is subject to the Major Accidents (Risks) Decree (*Besluit risico's zware ongevallen, Brzo*). Both companies and supervisory authorities are aware of the severity of what occurred from a business and safety perspective. All relevant parties have taken steps to address safety deficiencies, including by following recommendations from the 2013 Odfjell report. This is no less than could be expected of them in view of the significant risks and the severity of the safety deficiencies. The efforts of the various parties involved have resulted in worthwhile improvements in safety management at companies to which the Major Accidents (Risks) Decree applies (hereinafter referred to as high-risk companies). However, the Dutch Safety Board has still identified a number of shortcomings.

Odfjell and the high-risk sector

Odfjell Terminals Rotterdam did not sit idle after the shutdown. Together with its parent company, OTR invested heavily in technical improvements to the tank storage facilities and fire-extinguishing facilities. This meant that it was possible to successively bring parts of the shut-down complex back into use over a period of years, under the watchful eye of the supervisory authorities responsible for supervision under the Major Accidents (Risks) Decree. The company management has also made many improvements at an organisational level, including increased safety supervision with direct reporting to management. Moreover, the company has addressed the safety culture in all sections of the organisation. Improvements are still being made at all levels - from top management to the shop floor - not only to the physical installations, but also the business processes and the safety culture.

The company would probably have been unable to restart its operations without the support of the international holding company, and considerable efforts will be required over the coming years to provide sustainable solutions to Odfjell's safety deficiencies. The sense of urgency will inevitably subside over time. Vigilance is all the more necessary now that the company has decided to enter a subsequent change phase. After a period in which the focus was largely on improving safety, the coming period will see Odfjell

Terminals Rotterdam seek the right balance between safety and service. Without compromising safety, Odfjell aims to strengthen its commercial position in the Port of Rotterdam once again by responding more effectively to market developments. The Dutch Safety Board considers it essential for the company to embed safety as a routine in both its primary process and management during this shift in strategy. The internal supervisors, including the board of supervisory directors, have the task of monitoring this process.

As a result of the Odfjell case, tank storage companies in the Netherlands are now more aware of their responsibility for safety. They have taken safety improvement initiatives at sector level, such as the Safety Maturity Tool (audit instrument), mutual safety benchmarks, and sharing best practices. Many tank storage companies have adopted these measures. However, the Dutch Safety Board finds it worrying that a significant proportion of the companies can still evade these developments. More generally, all high-risk companies must first and foremost have effective safety processes in place and must remain alert. Internal supervisors, such as boards of supervisory directors, are responsible for continuously and actively ensuring that the board of directors and management meet this requirement. In the period after the shutdown, Odfjell demonstrated that fulfilling this responsibility can pay off. The lesson from both this and the previous investigation is that internal supervision is essential at high-risk companies to ensure that a focus on safety is an integral part of business operations. The Dutch Safety Board feels that every high-risk company should draw up and implement quality requirements to guarantee internal supervision of safety.

Chain responsibility: commissioning companies and the Port Authority

Odfjell's contracting chemical and petrochemical companies have updated their measures for monitoring and promoting safety among their contractors to avoid a similar situation. For instance, the companies have tightened up their contracts, and perform more reality checks as part of their contractor audits. The OTR shutdown has made them aware of the importance of safety within 'their' tank terminal companies.

At the same time, commissioning companies are establishing limits to their responsibilities: both towards the companies, which retain primary responsibility for the activities they carry out, and towards the authorities that monitor compliance with the laws and regulations. It appears that the stubbornly reticent attitude on the part of commissioning companies can largely be explained by legal reasons of liability. As commissioning companies can exert a great deal of influence over high-risk companies to enforce safe activities, the Board feels that this reticent attitude is a too limited interpretation of their social responsibility as commissioning companies, particularly in view of the potential safety risks at companies to which the Major Accidents (Risks) Decree applies. It is reasonable to expect commissioning companies to be on the alert for warning signs of unsafe situations at their contractors and to take appropriate action.

The Port of Rotterdam Authority has taken useful measures in response to the Odfjell case, but as these measures are informal and non-committal they are no permanent guarantee that long-term unsafe situations will be prevented from occurring at high-risk companies. The responsibilities of the shareholders (the municipality of Rotterdam and the Dutch State), which are translated in the Port Authority's objectives, do not include

helping to create a safe environment for the people who live and work in and around the port area.

Governmental supervision

The Major Accidents (Risks) Decree system has remained essentially unchanged over the last three years. There are still three columns with separate legal bases for surroundings/environment, safety at work, and the fire service. Such a fragmented system means that collaboration and coordination is vital. The launch of the Brzo+ programme as a consultation platform for all supervisory authorities involved, is therefore to be welcomed. This platform has contributed towards the further professionalisation of the supervisory authorities.

Brzo+ is a consultative platform, however, not a body with the authority to direct the various organisations involved. This type of body is lacking in the current Major Accidents (Risks) Decree system. Operational and strategic collaboration between the inspection services remains essentially non-committal, and consequently problematic in areas. For instance, due to lack of capacity the Social Affairs and Employment Inspectorate (SZW Inspectorate) gives less priority to Major Accidents (Risks) Decree inspections, meaning that fewer man hours are available for these activities. The involvement of this inspection service in 'joint' Major Accidents (Risks) Decree inspections is consequently limited, leading to a lack of important knowledge about work safety and process safety. Liaison on enforcement between the Public Prosecution Service and the Environmental Protection Agency Rijnmond (DCMR) also remains an issue, as identified by the Dutch Safety Board in its previous report on Odfjell in 2013. The Public Prosecution Service and the DCMR are aware of the problem and intend to solve it, but have not yet managed to find a solution that is acceptable to both parties.

In practice, the independent responsibilities of the inspection services can lead to inconsistencies in the performance of supervisory activities. If the inspection services do not act as 'one authority', supervision can be less effective. Companies, employees and local residents must be able to rely on the government to provide a comprehensive safety net in the form of consistent policy to prevent long-term unmanaged safety situations at high-risk companies and to vigorously defend their interests. The quality of the safety net depends on the quality of collaboration between public sector parties, particularly in a fragmented system such as that in the Netherlands. Among other things, this requires more clear and decisive action both towards companies and each other. The public sector parties can be expected to operate on the basis of the overarching social importance of promoting and, if necessary, enforcing safety where it is an issue within high-risk companies. For supervision to be effective, the various public sector parties must adopt a uniform approach towards enforcement.

The Dutch Safety Board feels it is necessary to introduce a degree of obligation to the collaboration between the supervisory authorities responsible for supervising the Major Accidents (Risks) Decree in order to 'repair' an essentially fragmented system. Moreover, inter-administrative supervision by the Human Environment and Transport Inspectorate (ILT) does not play a significant role in correcting or intervening in any problems. This supervisory authority therefore adds little value in terms of primary supervision of the companies.

The ILT lacks the resources and powers to obtain the information it needs to make a sound judgement as to whether it should intervene. Given that the State Secretary of Infrastructure and the Environment - as the person responsible for coordinating the system - relies in turn on the ILT for information about the system, the State Secretary is also unable to oversee the proper functioning of the system and where the problem areas lie. The Netherlands has set up a complex system of rules and supervisory authorities, however whether this system actually works as a whole is not monitored.

Sharing of information

In line with society's need for greater transparency, the authorities involved are publishing more and more information about supervisory and enforcement activities relating to high-risk companies. This was also one of the recommendations in the Dutch Safety Board's previous investigation. However, the Board has discovered with some concern that the structural sharing of information between public and private parties in the Rijnmond area has not been established since the Odfjell report (2013). Sharing and taking advantage of one another's information about the safety situation at high-risk companies has still not become an automatic process. Openness between companies is limited. High-risk companies are also reluctant to share information with the government due to the perceived risk that supervisory authorities will use this information for direct enforcement or that it may have a negative impact on their image. The DCMR was also unable to specify what information it wanted to receive and for what purpose. Both the business sector and the government are missing opportunities here to acquire a better understanding of the safety situation within a company. This is essential to ensure the parties involved are better able to meet their responsibilities.

Shortcomings

The Odfjell case was a wake-up call for companies and supervisory authorities in the sector. The Dutch Safety Board notes that these parties have made many worthwhile improvements in the interim. The challenge is now to maintain and embed the improvements made with the aim of sustainably managing safety at an appropriate level for high-risk companies. The Board has identified a number of remaining shortcomings that need to be addressed in order to achieve this goal.

1. Management of the high-risk domain

In the national coordination and collaboration between supervisory authorities within the high-risk domain, there is no option for management based on compliance with agreements on supervision and enforcement. This has a negative impact on the quality of supervision of the Major Accidents (Risks) Decree. The Dutch Safety Board feels that the current collaboration and coordination in the context of supervision of the decree via the Brzo+ programme needs to be enshrined in law or in another way to create management options to improve the quality of overall supervision.

There should also be one responsible person or authority who can take binding decisions if an impasse occurs in the implementation of supervision that places the safety of a high-risk company under threat. This person or authority must have a sufficient mandate from the responsible members of government.

2. Presence of the SZW Inspectorate at Major Accidents (Risks) Decree inspections

The SZW Inspectorate has limited involvement in these inspections due to capacity issues and the resulting choices that this inspection service is forced to make. This has a negative impact on the quality of supervision of the Major Accidents (Risks) Decree. The Board considers it necessary to close this 'gap' in the supervision of high-risk companies.

3. Commissioning companies' chain responsibility

The Dutch Safety Board has found that its views on the interpretation of chain responsibility are not shared by the commissioning companies. This was already evident following the previous report (2013). Their attitude is still reticent. The same applies to the Port of Rotterdam Authority. However, the Board maintains that commissioning companies and the Port Authority can do more to promote the safety of the companies they do business with. The potential safety risks within high-risk companies are too great for reticence.

4. Sharing of information

The business sector and the government are still missing opportunities to acquire a better understanding of the safety situation within a company by sharing information. This is essential to ensure the parties involved are better able to meet their responsibilities. An external incentive is required to break through this impasse.

MAIN CONCLUSIONS

To gain insight into the learning effects of the Odfjell case, the Dutch Safety Board has investigated the extent to which the parties involved have addressed the safety deficiencies identified in the 'Odfjell Terminals Rotterdam Safety' investigation and acted on the recommendations made in that investigation. The Board wants to know to what extent the affected companies and the government have established safeguards to prevent unsafe situations at high-risk companies in the long term.

General conclusion

The general conclusion is that both the companies involved and the public sector parties have taken measures to improve safety within high-risk companies. This is no less than could be expected of them in view of the severity of the safety situation at Odfjell in the period up to the shutdown in 2012. The efforts of the various parties involved have resulted in worthwhile improvements in safety management at high-risk companies. However, the Board is not yet convinced that the measures taken as a whole lead to an appropriate and sustainable safety level for high-risk companies. Preventing long-term unsafe situations at high-risk companies requires a robust set of structural measures to limit the risks as much as reasonably possible. This is a joint responsibility of the companies and government. The Board feels that there are still vulnerabilities and a number of shortcomings in the interpretation of this responsibility.

The Odfjell case as a lesson to high-risk companies

Odfjell Terminals Rotterdam (OTR) has addressed its safety deficiencies and acted on the Dutch Safety Board's recommendations to improve internal safety supervision. At an operational level and in terms of internal supervision, OTR and its parent company Odfjell Terminals have made many improvements in order to manage safety at the terminal in Rotterdam. This is also one of OTR's responsibilities as a high-risk company where safety management must be properly organised. However, drastic events were necessary (the shutdown, emissions of harmful substances, social unrest) before Odfjell met this responsibility.

The improvement process at OTR was accompanied by tough organisational measures, substantial efforts by both management and employees, and extensive financial support from the parent company. The results will help to prevent long-term unsafe situations, but it will take more to guarantee sustained safety. OTR still has - even by its own admission - much work left to do to maintain the results achieved, to continue the improvement process and to improve its financial performance at the same time. The internal supervisors have a responsibility to ensure that the focus on safety does not dwindle.

High-risk companies themselves are primarily responsible for working safely with hazardous substances. The difficult and highly demanding process that Odfjell Terminals Rotterdam went through after the shutdown shows how drastic the consequences are for

a company if it neglects safety for a long period of time. The Odfjell case therefore serves as a warning to all high-risk companies in the Netherlands.

Effects of the Odfjell case on private parties linked to high-risk companies

Aside from the high-risk company itself, the company's customers can have a powerful influence on safety at the high-risk companies they do business with. Moreover, sector organisations and other private parties such as the Port Authority as the landowner and institutions that certify management systems, can contribute towards safety management at high-risk companies. The Dutch Safety Board believes that all these parties have a responsibility within the chain.

The investigation has revealed that, in the wake of the Odfjell case, the private parties involved started to take a more effective approach towards their responsibilities within the chain, in line with the Board's recommendations. Both individual companies and sector organisations have made a number of improvements to exert more influence on the structural management of safety risks at high-risk companies.

For commissioning companies, the Odfjell case was a wake-up call. They are now more aware that the damage caused by neglecting safety at a high-risk company they do business with, is not limited to that one particular company. A serious incident at a contractor also affects their own business and can harm the reputation of an entire sector (or supply chain). Commissioning companies now pay more attention to safety at the tank terminals they do business with, both during the contract phase and during assignments. And it is reasonable to expect them to do so.

The Dutch Safety Board believes that customers of companies to which the Major Accidents (Risks) Decree applies, should require their contractors to comply fully with the applicable laws and regulations and apply the same safety levels as for their own sites. The Board feels that this responsibility is also integral to socially responsible business practices, as stated in the Dutch Corporate Governance Code.

Sector organisations are taking initiatives to measure and compare the safety performance of high-risk companies, so that they can learn from this. These sector-wide initiatives contribute towards more effective safety management in the high-risk sector, but they can only have maximum benefit if every company actively takes part. This is not the case. For instance, not all companies are joining in with improvement initiatives, or they refuse to share information that helps to improve safety on grounds of competitiveness.

The Dutch Safety Board has also found that the private parties tend to constantly redefine their social responsibility and impose restrictions on themselves. They do this for instance by placing their responsibility within strict legal frameworks, by basing their reasoning solely on the continuity of their own business processes, or by pointing to the government's supervisory duties. In the case of commissioning companies this can mean that efforts to ascertain that contractors are managing safety are limited. The Dutch Safety Board considers the reticent attitude identified on the part of commissioning companies and sector organisations to be incompatible with their social responsibility to minimise safety risks at high-risk companies as much as possible. The Board views some overlap

with the role of government supervision as added value in creating a robust safety net to guarantee safe business operations.

Alongside the commissioning companies and sector organisations, the Port Authorities and parties in the certification sector have also made improvements in response to the Odfjell case. The Port Authority has expanded its role by challenging companies in the port with a poor safety performance. Certification institutions and the Dutch Accreditation Council RVA have introduced a tougher certification and accreditation process for management systems, specifically for high-risk companies. The improvements contribute towards the better management of safety risks at high-risk companies, but the Board also has some critical observations.

The measures taken by the Port Authority in response to the Odfjell case are useful, but as these measures are informal and non-committal they are no permanent guarantee that long-term unsafe situations will be prevented from occurring at high-risk companies. The responsibilities of the shareholders (the municipality of Rotterdam and the Dutch State), which are translated in the Port Authority's objectives, do not include helping to create a safe environment for the people who live and work in and around the port area. The improvements in the certification of high-risk companies are aimed at the proper functioning of the management process and do not guarantee the actual safety performance of a high-risk company. Although certification is a useful tool as an incentive for companies to continuously improve safety, it is of limited value as a means of preventing long-term unsafe situations.

Impact of the Odfjell case on government supervision

If a high-risk company fails to meet its responsibility for safety, the government must identify this issue quickly through supervision and respond appropriately to protect the company's employees and surroundings against safety risks.

Government supervision of safety in the high-risk sector gained new momentum in the wake of the Odfjell case. At administrative, board and implementation level, the inspection services are aware that a long-term unsafe situation like the one at Odfjell should not happen again. Public sector parties have taken steps to improve the permit process, supervision and enforcement in the high-risk sector, not just in the Rijnmond area - for the DCMR and the safety region organisation - but also at national level. Structural efforts are being made to achieve a professional and uniform approach to supervision under the Major Accidents (Risks) Decree as part of the Brzo+ cooperation programme.

The improvements the parties have now started to make in the implementation of this supervision, require robust support and consistent management at an organisational and administrative level. In this respect, the complex supervision system still has major problem areas and weaknesses. The Dutch Safety Board feels that this means the parties have provided limited assurances that long-term unsafe situations will be prevented at high-risk companies.

The institutional framework for supervision under the Major Accidents (Risks) Decree has not changed and is no less complex. This places heavy demands on collaboration and

coordination between the public sector parties involved. The Brzo+ programme provides direction but lacks a formal basis. It is not a body with the authority to direct, and to call the participating supervisory authorities to account for fulfilling agreements. The effectiveness of necessary coordination and cooperation in government supervision largely depends on mutual consensus, goodwill on the part of affiliated parties, and drive of the individuals involved. Participating public sector parties still have the option to pursue a different course, even if this encroaches on the shared underlying interest they are supposed to serve: to work together to encourage high-risk companies to achieve structural safety management. A pointed example is that the essential expertise of the SZW Inspectorate is not always represented at joint Major Accidents (Risks) Decree inspections. This potential gap in supervision is due to capacity issues within the inspectorate and the resulting choices that this inspection service is forced to make.

Moreover, there is still considerable scope for a fragmented approach to enforcement. The 'National Major Accidents (Risks) Decree Enforcement Strategy' ensures liaison between the various supervisory authorities, but enforcement is ultimately carried out for each policy domain. Fragmented enforcement, combined with poor mutual feedback on enforcement activities carried out, increases the risk that a situation such as that at OTR cannot be prevented. A related concern is that coordination between the Public Prosecution Service and the DCMR on the application of criminal law and administrative law in enforcement is not yet running smoothly. Initiatives have only recently been taken to improve this coordination.

Should an impasse arise in the implementation of supervision under the Major Accidents (Risks) Decree, there is no responsible individual or authority above the parties that can resolve the issue. There are also no guarantees at institutional level that the government will intervene in the event of a serious or long-term compliance deficit if the supervisory authorities cannot find a solution together. The tools and information available for intra-administrative supervision are not enough to detect a case such as Odfjell and to tackle any failure by the competent authority to perform its duties. Inter-administrative supervision of duties under the Major Accidents (Risks) Decree has been significantly reduced in recent years based on the assumption that horizontal monitoring by the provincial councils can provide checks and balances. However, this democratic control is essentially different to inter-administrative control and cannot replace it.

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