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HOW THE DUTCH PII MODEL IS
REDEFINING MUTUAL AID
BETWEEN INDUSTRIAL
FIRE SERVICES



Large-scale industrial fire scenarios, such as storage tank and bund fires, are rare. However, when they do occur, they require a high level of preparedness, operational capability, and cooperation to ensure a rapid and effective response. In the Netherlands, four major industrial fire brigade organisations have joined forces to create a shared knowledge and equipment pool known as the Platform for Industrial Incident Response (PII). The cooperation agreement dates back to 2016 and is recently updated and provides for the sharing of specialised firefighting equipment, including high-capacity pumps, high-volume firefighting monitors, and hose equipment, as well as foam stocks, knowledge, and expertise. An important motto within this model of industrial fire service cooperation is: 'Those who request assistance also have

an obligation to contribute.'

The Netherlands, owing to its strategic location in a delta region with major seaports, is home to several large port and industrial clusters with Seveso/COMAH-industry. These are concentrated in the Port of Rotterdam-Rijnmond area, around the Western Scheldt estuary in the province of Zeeland (Vlissingen–Terneuzen), the seaport of Moerdijk, the port areas of Amsterdam and Groningen (Delfzijl/Eemshaven), and the southeastern province of Limburg around Sittard-Geleen. The partners in this unique mutual aid arrangement are the public-private Joint Fire Service Rotterdam (Gezamenlijke Brandweer Rotterdam – GB), together with the industrial fire brigades of Shell Moerdijk, the Chemelot chemical complex in Limburg, and DOW in Terneuzen (Zeeland). Cooperation under the name PII was originally established in

2013, and in 2016 the partners signed a new agreement setting out arrangements for mutual assistance and support. Exploratory discussions are still underway regarding the possible expansion of the cooperation in the future.

SCOPE OF THE COOPERATION

The unique cooperation between the four largest industrial fire brigades in the Netherlands was established from a shared understanding that combining knowledge, expertise, and operational capability is essential for robust preparedness and an effective response to major industrial fire and spill scenarios. This type of response requires large quantities of firefighting foam, high-volume firefighting equipment, specialist knowledge, and sufficient personnel to sustain operations during prolonged incidents. The participating fire brigades are equipped to deal with the ▶



The Platform for Industrial Incident Response (PII) enables Dutch industrial fire brigades to share specialist resources, equipment and expertise during major emergencies. Remote-controlled firefighting robots, high-capacity monitors and other specialist assets help provide the operational capability needed to tackle large-scale industrial fire scenarios.

largest credible incident scenarios they may face, but mutual assistance may be required in the event of simultaneous incidents or incidents of exceptionally long duration.

What you seldom do, you seldom do well. If you want to remain competent in tasks you perform infrequently, build partnerships that allow you to invest, educate, train and maintain your capabilities. The equipment involved is highly specialised, expensive, and therefore scarce by nature. Because very large-scale fire scenarios occur only rarely, companies must organise their emergency response capabilities efficiently and do not maintain extensive reserve stocks of this specialist equipment. However, they must be able to access additional operational capability and equipment whenever required. This means that external assistance and support are essential. Public fire services are not always able to provide these specialised

capabilities. To ensure access to reserve capacity in the event of an incident that exceeds their own resources, or when equipment is temporarily unavailable due to or technical failure, partners with a comparable risk profile and the same types of specialist equipment are required. The PII cooperation provides the solution for both situations.

MUTUAL ASSISTANCE AT THREE LEVELS

Mutual assistance between PII members is provided at three levels:

1. The provision of knowledge and advice remotely, via video-contact or by telephone
2. Deployment of a specialist advisor to the incident location
3. The actual deployment of personnel and equipment from one or more member organisations to the incident site to support operational firefighting activities.

The mutual assistance arrangement can be activated through a centrally operated 24/7 emergency contact point, which is based at the Operational Centre of the Chemelot chemical complex in Sittard-Geleen. Once a request has been received, the duty officer initiates a video meeting in which the assistance request is further specified. Based on this assessment, the exact nature of the request and the required operational support are determined, together with the personnel and equipment that can be provided through the PII network.

SHARED OPERATIONAL CAPABILITY

Within the platform, the partners have agreed to provide mutual assistance and support upon request by making parts of their equipment, resources, foam stocks, and knowledge or expertise available to one another. Naturally, this is subject to the condition that adequate equipment and personnel coverage



Specialist high-capacity monitors and mobile pumping systems form part of the operational capability available through the Dutch PII mutual aid partnership for large-scale industrial incidents.



The Sitech Emergency Centre at Chemelot coordinates requests for assistance through PII's 24/7 emergency contact point, helping mobilise specialist personnel and equipment across the network.

within their own operational area remains assured. All four fire brigade organisations participating in the cooperation derive their legal basis from a statutory industrial fire brigade designation issued by the competent authority under the Seveso legislation. Their operational capability and resources are aligned with the credible and normative scenarios defined in the companies' industrial fire brigade reports.

These reports specify the level of preparedness, operational capability, and foam stocks that must be available on site to ensure an effective response to incidents and emergencies, with the primary objectives of preventing escalation and protecting the surrounding area (external safety). These core responsibilities of the participating industrial fire brigades must not be compromised by lending specialist equipment to cooperation partners for extended periods. After all, if preparedness and operational capability become inadequate, the design basis scenarios may no longer be dealt with effectively, resulting in the Seveso establishments concerned no longer meeting their statutory obligations and permit requirements.

Within PII, the participating industrial fire brigades have agreed which resources can be made available, and within what timeframe, while ensuring that sufficient operational capability is retained to deal with the credible scenarios at their own

sites. Nevertheless, each request for assistance or support must be assessed on a case-by-case basis to determine whether it can be accommodated. Every member has an obligation to make every reasonable effort to provide assistance.

SIMULTANEOUS INCIDENTS

Under normal circumstances, the likelihood of multiple very large-scale industrial incidents or storage tank (bund) fires occurring simultaneously in the Netherlands is negligible. However, in an increasingly unstable world with a rapidly changing international threat landscape – including geopolitical tensions, military conflict, and terrorism – such a scenario can no longer be ruled out. Refineries,

tank terminals, and chemical industries may become strategic targets during armed conflicts, as demonstrated by the war between Russia and Ukraine, now entering its fourth year, in which both sides have repeatedly targeted each other's energy infrastructure and fuel logistics. Although this threat remains distant for the Netherlands at present, good governance requires anticipating future risks. It is therefore prudent to consider now how to respond to the possibility of simultaneous major industrial incidents. Against the backdrop of this changing geopolitical reality, a cooperation platform that combines specialist resources and capabilities is both a sensible and logical model. ▶



Shell Moerdijk's industrial fire brigade is one of the four founding organisations that make up the Dutch PII mutual aid network.



The Sitech Emergency Centre operates PII's 24/7 emergency contact point, coordinating requests for specialist personnel, equipment and operational support between member organisations.

RECIPROCITY

Reciprocity is a fundamental principle of the PII cooperation. In simple terms, this means that those who request mutual assistance or support must also be able to provide it themselves. Joining the partnership with the expectation that the 'larger players' will provide specialist equipment and assistance, without

making a meaningful contribution in terms of personnel, resources, and expertise, is not an option.

This principle of reciprocity places clear requirements on organisations wishing to become members of the platform. They must have sufficient operational capacity to make a meaningful contribution to the partnership. Participation is about

both receiving and providing support – in terms of equipment, personnel, and knowledge and expertise. As described earlier, maintaining sufficient operational capability at their own site to fulfil their statutory duties and obligations is an essential criterion. Should other industrial fire brigade organisations wish to join the cooperation model, the platform will assess, on the basis of these criteria, whether they are capable of making an adequate contribution to the collective resources and operational capability.

PII AT A GLANCE

PII is a legal association established as an independent platform for collaboration between companies. The chairmanship rotates among the member organisations. It is currently held by the Joint Fire Service Rotterdam (Gezamenlijke Brandweer Rotterdam). PII does not act as the central owner or manager of equipment, vehicles, fire station or technical assets and therefore has no financial responsibilities for their maintenance or management. Consequently, the deployment of personnel and equipment during incident response operations does not take place under the PII banner; instead, it is the individual member organisations that provide mutual assistance to one another, under coordination of the Sitech emergency centre.

Large-scale industrial fire brigade operations and mutual assistance deployments involving PII members are conducted under the responsibility of the operational commanders of the public fire service (the relevant Safety Region), in accordance with Dutch legislation and regulations. During mutual assistance operations, no additional liabilities are created that would give rise to extra insurance risks requiring separate cover.

TECHNICAL ASPECTS AND SYSTEM INTEGRATION

Although the members of PII work closely together in sharing their knowledge and capabilities, there is not yet a unified equipment strategy for the collective. Each fire brigade operates its own specialist mobile firefighting systems, tailored to its local risk profile, incident scenarios, and operational requirements. Not every organisation uses the same types of equipment, capacities, or hose diameters. As a result, integrating different systems during a mutual assistance operation can present a technical challenge.

The PII members therefore invest in joint training and have also developed technical interface solutions that allow, for example, different pumping systems ▶



Heavy duty Fifi truck for industrial firefighting from DOW Benelux in Terneuzen.

example was during a period of extreme weather, when PII supported the industrial fire brigade at the Chemelot chemical park in Limburg after a canal embankment was at risk of failure due to high water levels. By supplying several kilometres of large-diameter water transfer hose and a mobile pumping unit, a backup water supply was established from the River Meuse.

More recently, in 2024, following an international request for assistance, the collective even provided support across the national border when the roof of a large storage tank collapsed at a tank terminal in the Port of Antwerp, creating the potential for a major storage tank and bund fire. To ensure that the extensive preventive firefighting operation had sufficient foam concentrate available, three PII members supplied part of their foam stocks to their colleagues in Antwerp.

The experience gained with PII to date demonstrates that cooperation is the key to organising an effective response to major industrial incidents. By pooling capabilities, each member avoids the need for unnecessary additional investment in expensive specialist equipment solely to guarantee continuity and operational capability for responding to very large-scale fire scenarios that occur only rarely. The Dutch model of cooperation in industrial incident response is also characteristic of the broader organisation of fire and rescue services, crisis management, and emergency response in a small country facing significant safety challenges. These challenges bring partners together to invest in collective strength, based on a shared vision and a common commitment to cooperation. 



The Joint Fire Service Rotterdam is one of the four founding members of the PII partnership.

and water transfer systems with varying hose diameters to be connected. In 2023, PII organised a roadshow, during which the participating organisations visited one another to examine each other's equipment in detail and test how different systems could be interconnected. Each participating fire brigade now possesses the necessary adaptor couplings, ensuring that mutual assistance involving equipment from different manufacturers and with different capacities does not encounter technical compatibility issues.

PII also maintains a multi-year training programme in which the members jointly exercise large-scale incident scenarios to gain experience in coordinated operations and the combined deployment of their

capabilities. The concept is that each year one of the member organisations hosts and organises a joint exercise. The intention is to hold the next collective PII exercise in 2026 in the Port of Rotterdam later this autumn.

OPERATIONAL EXPERIENCE

Since the establishment of PII, the industrial fire brigade collective has already put the cooperation into practice on several occasions. Fortunately, a full-surface storage tank fire or bund fire has not yet occurred, but there have been several threatening incident scenarios in which member organisations required more resources than their own capabilities could provide. One such



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