

Fire on two industrial sites with adjoining storage areas

26 September 2019

Rouen and Petit-Quevilly (Seine-Maritime)
France

Conflagration
Pool fire
Combustible liquid
Warehouses
Outdoor storage areas

THE INSTALLATIONS CONCERNED

Both sites are in an industrial zone consisting of four sites that fall within the scope of the regulations on establishments classified for environmental protection (ICPE). One of the sites is classified as a Seveso establishment (site A); the other falls under the ICPE registry system (*régime de l'enregistrement*) (site B). Other ICPE sites are also in the port next to the industrial zone. This complex is about 3 km from Rouen city centre. The nearest residences are about 10 metres from site A.

Site A:

Commissioned in 1954, it covers 14 ha and manufactures specific oil additives and fluids for engines, industrial lubricants, petrol and diesel fuel. The site consists of three main sectors: production halls; large storage containers for raw materials, intermediate products and finished products; and covered or open-air storage areas for small- (200-L drums) and medium-capacity (1,000-L intermediate bulk containers [IBCs]) containers for packaged products. It was classified as a lower tier Seveso establishment after a change in ICPE classification values, as it directly exceeds several codes concerning the manufacture and storage of substances or preparations that are highly toxic or toxic to aquatic life. Given the possible hazardous phenomena with consequences for third parties outside the site, a technological risk prevention plan (PPRT¹) was approved by prefectural order on 31 March 2014. At that time and as part of actions to reduce hazards at the source, two liquefied petroleum gas (LPG) storage tanks, located between sites A and B, were removed and the position of a hydrochloric acid tank was changed.

Site B:

Authorised in 1953 under the "general stores" statute to perform warehousing activities, it consists of four covered buildings. This site, which benefited from historical precedence,² was known to authorities under reporting arrangements. Given the volume of the facility, it is now subject to the ICPE registry system under section 1510.³ Among others, packaged products from site A are stored here. Two of the buildings on site B adjoin site A, and another adjoins site C, an ICPE specialising in waste treatment.



¹ Technological risk prevention plan (PPRT) set out in act No. 2003-699 of 30 July 2003 concerning the prevention of technological and natural hazards and the repair of damage.

² Article L.513-1 of the Environment Code.

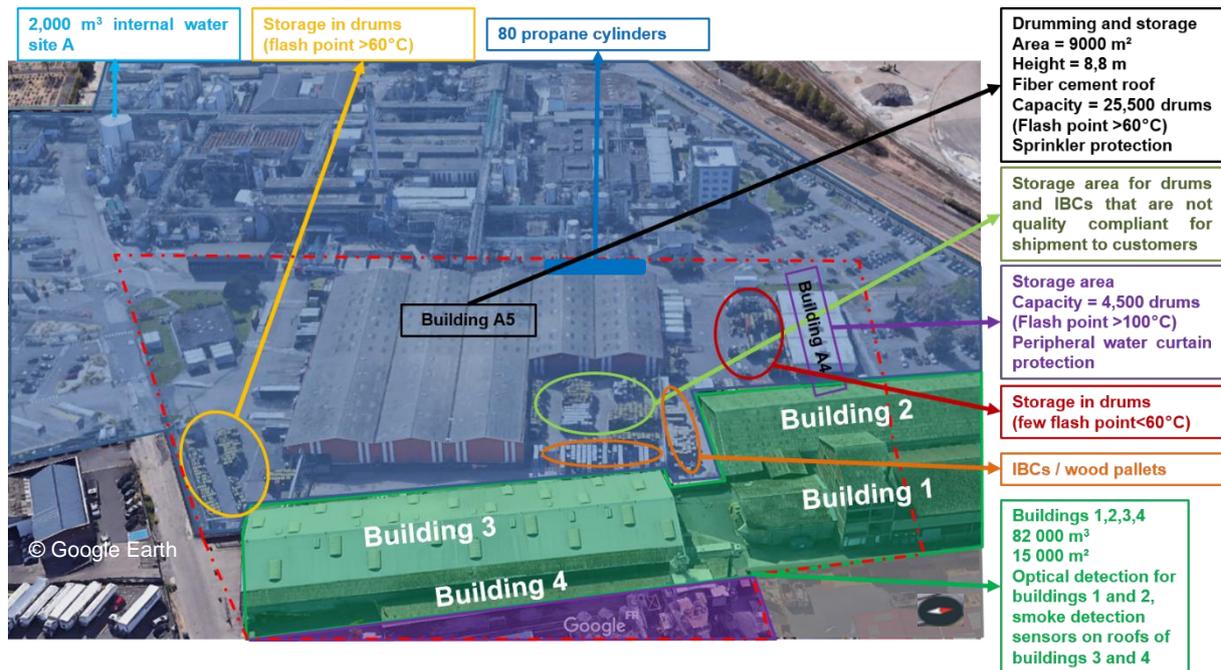
³ Section 1510 was created in 1992 and concerns the storage of combustible materials, products and substances in covered warehouses. The registry system for this section was created in 2010.

Closeup of fire zone:

Three sites were involved in the accident: sites A, B and C. Site C was little affected.

For site A, only the storage area for packaged products, consisting of buildings A4 and A5 and the outdoor storage areas of these buildings, was involved. No production hall or large storage container area was affected. The image below shows the positions of containers (drums and IBCs) in the zone, whether they are empty or filled with flammable liquids,⁴ category 4 flammable liquids⁵ or liquids with flash points above 93°C. Phosphorus pentasulphide is stored near this fire zone.⁶ Moving these containers was one of the first actions taken by site A employees and the fire-fighters. This prevented potentially much more serious consequences given the hazard statements for this substance. For security reasons, its location is not specified on the map below.

The four buildings on site B were affected by the fire. About 8,000 tonnes of products were in storage. Of these, about half were products belonging to site A, either combustible liquids or liquids with flash points above 93°C, as well as combustible solid products. There were no flammable products.



THE ACCIDENT, ITS CHRONOLOGY, EFFECTS AND CONSEQUENCES

Chronology:

The chronology below was determined from the various hearings before the fact-finding commission of the French National Assembly⁷ and the commission of enquiry of the French Senate,⁸ the report⁹ by the General Council for the Environment and Sustainable Development (CGEDD) and General Council for the Economy, Industry, Energy and Technologies (CGIET) commissioned by the Ministry for an Ecological and Inclusive Transition, and data available on the website¹⁰ of the Prefecture of Seine-Maritime, as well as discussions between the Regional Directorate for the Environment (DREAL) of Normandy and the General Department of Risk Prevention (DGPR).

⁴ According to ICPE classification, liquids with flash points below 93°C are flammable.

⁵ Flammable liquids with flash points between 60°C and 93°C.

⁶ Phosphorus pentasulphide emits toxic fumes (phosphorus, sulphur and carbon oxides) if it is heated to decomposition. In addition, with water, it forms hydrogen sulphide and phosphoric acid.

⁷ [http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/\(block\)/63919](http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/(block)/63919)

⁸ http://www.senat.fr/commission/enquete/incendie_de_lusine_lubrizol.html

⁹ <http://www.cgedd.developpement-durable.gouv.fr/l-incendie-lubrizol-nl-logistique-du-26-septembre-a2910.html>

¹⁰ <http://www.seine-maritime.gouv.fr/Actualites/Lubrizol>

The elements described summarise the key stages of the fire, deployment of emergency services and alert and communication management on 26 September 2019 (day D).

Stages of the fire

2:39 a.m.: First observation of fire – Call to fire brigade by staff member on site C. Flame height 10 m

2:40 a.m.: fire-fighters call site A. After acknowledgement, site A confirms flames and pool fire

3:00 a.m.: generalised conflagration of building 3 site B, spread to building 2 then 1 site B, to the uncovered space between buildings A5 and A4, automatic sprinklers triggered in building A5

3:34 a.m.: general conflagration of building A4

4:15 a.m.: generalised conflagration of building A5, destruction of roof, explosion of drums generating projections of fibre cement fragments

5:35 a.m.: explosion of gas cylinders

10:30 a.m.: fire is contained

1:00 p.m.: fire is under control

3:00 p.m.: some hot spots remain and drums with odorous substances are breaking down on site A

Spread of fire over more than 3 ha
22 km long/6 km wide smoke plume
Fallout of soot up to 100 km
Buildings A5, A4 and outdoor storage area destroyed on site A
Buildings 3 and 4 destroyed, parts of buildings 2 and 1 on site B
9,500 t of liquid fuels burned (5,250 t on site A, 4,250 t on site B)
1,300 barrels in decomposition on site A

Deployment of emergency services into the industrial zone

2:52 a.m.: arrival of fire-fighters on-site. Flame height 20 m

2:54 a.m.: setup of mobile resources and manual release of the building A4 water curtain

3:20 to 4:09 a.m.: phosphorus pentasulphide storage moved

4:15 a.m.: draining of the site's internal water tower (1,860 m³) – shutdown of building A5 sprinklers. Revert to public water supply

5:48 a.m.: First fireboat in place on the Seine

6:00 and 8:00 a.m.: reconnaissance by helicopter and drone

7:45 a.m.: arrival of reinforcements from outside companies (water resources and foam concentrates)

10:30 a.m.: arrival of reinforcement from emergency services from other departments

11:00 a.m.: conditions required for effective use of foam concentrates

12:30 p.m.: two other fireboats in place on the Seine

2:00 p.m.: POLMAR spill containment boom in place

276 fire-fighters
90 police officers, 46 gendarmes
46 fire engines mobilised
15 km fire hose
3 fireboats
960 m³/h foam and 780 m³/h extinguishing water
96 m³ foam concentrates
Over 20,000 m³ water

Alert and communication management

3:15 a.m.: information from the Interministerial Crisis Management Operational Centre (COGIC)

3:28 a.m.: 300-metre safety perimeter

3:45 a.m.: activation of the prefecture's operational centre

3:50 a.m.: safety perimeter extended to 500 metres

4:00 a.m.: information on radio covering the incident

4:50 a.m.: First prefectural message on social network

5:00 a.m.: triggering of external emergency plan

5:15 a.m.: First prefectural press release

6:00 a.m.: activation of the Emergency Situation Response Unit (CASU) of the National Institute for Environmental Technology and Hazards (INERIS)
First message to the public by the prefecture. Shelter recommendation for 13 municipalities

6:24 a.m.: prefect addresses situation on the radio

6:45 a.m.: alert for the closure of 225 schools

7:00 a.m.: triggering of POLMAR plan

7:50 a.m.: sounding of alarms on site A

10:30 a.m.: Rouen Hospital crisis unit

2:30 p.m.: message from the prefect to mayors via the Automated Local Alert Management (GALA) system

At 3:00 p.m., more than 1,200 calls recorded at the prefecture's Public Information Centre
Activation of a medical and psychological emergency unit
237 schools closed for 2 days
Health restriction for agricultural products in 216 municipalities for 26 days
Post-accident health survey on emergency personnel and the public in 216 municipalities

Impact on the industrial zone:



No fatalities or direct injuries due to the flames and explosions were recorded in the industrial zone. Specific monitoring of the people involved in the accident at their homes or in the immediate vicinity was conducted (on D0, D+30 and D+60). On D+30, no effect was seen that could be related to the operations.

About 10% of the area of site A was affected. On site B, buildings 3 and 4 were destroyed and buildings 1 and 2 partially. Site C, neighbouring site B, suffered only a little material damage.

About 9,500 tonnes of products, mainly on site A, burned in the zone, whether stored on site A (nearly 5,250 t) or site B (nearly 1,690 t). The vast majority of these products were liquids with flash points above 93 C. A few hundred tonnes involved flammable liquids with flash points between 60 and 93 C, and less than 10 t of flammable liquids with flash points below 60 C were stored in about 50 drums outside building A4 on site A. These products consisted of more than 600 references to which must be added, on site B, about 2,560 t of miscellaneous products (7 t of tyres and 116 t of construction material), including over 2,400 t of food gum and nearly 6,000 pallets. The fire zone extended over about 3 ha.

On site A, on the day of the fire, the approximate distribution of products stored in drums and IBCs, as well as the number of pallets, was as follows:

| | TOTAL | Indoors | Outdoors |
|---------|--------|------------------------------|-----------------------------|
| Drums | 19,000 | 14,500 (2,850 t of products) | 4,500 (1,100 t of products) |
| IBCs | 1,700 | 10 (being drummed) | 1,700 (1,400 t of products) |
| Pallets | 5,900 | 3,600 | 2,300 |



Among the drums stored outdoors on site A, about 1,300 containing oils with ZDDP¹¹ were exposed to thermal radiation. As they broke down, they released mercaptans and resultant foul odours.

For four months, a containment area was created and specialised equipment (robot) was used to treat these drums.

Impact outside the industrial zone

No fatalities or direct serious injuries due to the flames occurred. However, the smoke plume, which extended 22 km long and 6 km wide as determined by aerial overflight by fire-fighters, caused major disturbances for surrounding populations (overflight of 215 municipalities). From D0 to D+20, 254 people visited urgent treatment centres for reasons related to the accident. Among them, 9 were hospitalized for short stays (less than 5 days).¹² From D0 to D+18, 43 procedures were recorded by SOS Médecins in connection with the fire. More than half of the reported cases in the first few days for unpleasant odours were accompanied by health symptoms (headache, nose-throat-eye irritation, nausea, vomiting, respiratory problems).¹³ To investigate the effects of this fire on the public, a long-term epidemiological study is planned¹⁴ on residents of the Normandie and Hauts-de-France regions covered by the smoke plume.

¹¹ This substance, zinc dialkyl dithiophosphate, had generated strong odours in January 2013 https://www.aria.developpement-durable.gouv.fr/fiche_detaillee/43616-2/

¹² Santé Publique France

¹³ <https://www.normandie.ars.sante.fr/incendie-lentreprise-lubrizol-rouen-0>

¹⁴ Minister of health and solidarity on 11 October 2019 in a meeting of the transparency and dialogue committee



The precise quantities and types of products caught in the fire were not immediately known, and, although the initial analyses did not reveal any acute airborne toxics,¹⁵ recommendations were made and lockdown measures taken in the early hours by the authorities in 13 municipalities (confinement of residents of retirement homes and health establishments, closure of 225 schools and crèches for 2 days and recommendations for breeders and farmers). INERIS, through CASU,¹⁶ was mobilised to provide technical support to government departments from the outset of creation of a crisis

unit at the Prefecture, specifically to provide an estimate of the average composition of the fumes based on the information in the safety data sheets of the products on site A caught in the fire. Modelling of the plume and associated deposits was proposed. A monitoring program was proposed on day D based on the information available in the safety report for site A and the feedback on industrial accidents.¹⁷ Once the exact quantities and compositions of the products that burned in the fire were known, the models were refined to determine the sampling strategies. In view of these models and the potential impact of the fallout of soot in 112 municipalities, health restrictions on the marketing of dairy products were imposed for 19 days (10 million litres of milk lost) and for 23 days for honey, eggs and farmed fish.

It was not possible to contain all the fire extinguishing water, assessed to be more than 20,000 m³, in the industrial zone, and a small part flowed into the dock of the port area (Seine). The setup of a spill containment boom made it possible to contain most of this pollution. Over 150 m³ of supernatants were pumped out. The fauna at the dock was impacted: fish mortality, living but oil-covered birds (seagulls, large cormorants) were found near the banks as well as the corpses of a coypu and bird (seagull). Outside the dock, the ecological status of the area remained classified as "good" or even "very good". This ecological status returned to "good" at the dock on D+21.¹⁸ In view of the impact on sediments,



dredging measures were imposed on operators. A "water and biodiversity" protocol was put in place, coordinated by DREAL and the Departmental Authority for Territories and Seas (DDTM) with partners such as the Seine-Normandy Water Agency, the French Agency for Biodiversity, the National Forestry Office and the *Lieutenants de Louveterie* volunteer rangers.

Samples were taken for various measurements (air, soil, plants, drinking water, agricultural products). This required the cooperation of numerous organisations immediately in the first hours of the fire: fire-fighters, air quality monitoring association, INERIS, private consulting firms as part of the RIPA¹⁹ network and laboratories contracted by the operators.

Details of the analysis results can be viewed on the [website](#) of the Prefecture of Seine-Maritime.

A specific protocol for measuring soil and plant contaminants was implemented. It was the first time that such an ambitious protocol was implemented. The results for Seine-Maritime showed no particular anomaly apart from a few traces of lead and benzo[a]pyrene, pollutants that were already found in some soils in the region due to its industrial past and whose presence cannot be attributed to the fire. The results for Hauts-de-France were similar. They underline the presence of pollutants from the past, but no incompatible uses related to the fire.

¹⁵ Harmful effects arising after a single, short-term exposure to a high concentration of a substance. Contrasted with chronic (long-term) toxicity, which refers to the harmful effects that appear after repeated exposure over a prolonged period to a low concentration of a substance.

¹⁶ Emergency Situation Response Unit of the National Institute for Environmental Technology and Hazards.

¹⁷ Guide on the sampling and analysis strategy after a technological accident – fire. Ineris-DRC-15-152421-053661C, December 2015.

¹⁸ DDTM – DISEN, summary of 18/02/20, <http://www.seinemaritime.gouv.fr/Actualites/Lubrizol/Analyses/Analyses>.

¹⁹ Network of post-accident responders

Without being exhaustive, other harm to local life must be noted:

- about 2,000 claims made to primary insurers²⁰ (smoke damage, property damage, house cleaning, vehicles, etc.);
- clean-up of soot deposits in 48 schoolyards;²¹
- more than 3,000 farms affected by prefectural restrictions intended to increase the safety of all animal and plant foodstuffs;²²
- for the city's economic stakeholders: business losses in the first days, about 50% in the first four days, 30% the following week and 15% in subsequent days, breaking even one month after the accident;²³
- 168 companies reduced their activity, involving 3,500 employees and 21,092 compensated hours.²⁴

Concerning these last two points, site A set up two dedicated solidarity funds: one intended for farmers and the other for businesses and local authorities.

Finally, the odour issue was particularly pronounced during the weeks after the fire. Later, occasional episodes related to the construction site led to peaks in odour reports. Misting systems were put in place for short-term management, and "smelling" tours were conducted in addition to a reporting system for reacting quickly and effectively during odour episodes. The order of operations of the remediation worksite took this issue into account to enable areas with high odour potential to be treated as soon as possible.

European scale of industrial accidents:

By applying the rating rules applicable to the 18 parameters of the scale officially adopted in February 1994 by the Member States' Competent Authority Committee for implementing the Seveso Directive for hazardous substances and in light of available information, this accident can be characterised by the following four indices:

| | |
|-------------------------------|---|
| Hazardous materials released |   |
| Human and social consequences |   |
| Environmental consequences |   |
| Economic consequences |   |

The parameters associated with these indices and their rating scale are available at the following website: <http://www.aria.developpement-durable.gouv.fr>

Hazardous materials released (Q1): The rating implies using the high thresholds in the Seveso Directive and, in the event of an accident involving several targeted substances, only retaining the highest level (no accumulation of substances). Based on the Classification, Labelling and Packaging (CLP) hazard statements and their correspondence with the Seveso III Directive, H400 (very toxic to aquatic life) and H411 (toxic to aquatic life with long lasting effects) substances responding to the 4510 code represent the highest tonnage (584 t). Knowing that the upper threshold of code 4510 is set at 200 t, level 5 is reached (1 to 10 times the threshold).

Human and social consequences (H5): 9 people having been hospitalised for a short time leads to level 3 (between 6 and 19 lightly injured).

Environmental consequences (Env12): more than 150 t of supernatants were pumped and removed from the dock. The limit set at 200 mg/L by prefectural order for site A concerning the chemical oxygen demand (COD) was exceeded. The Env12 criterion of the European scale is the volume (V) of polluted

²⁰ Hearing held by the National Assembly on 08/01/2020 with the director of damage and liability insurance of the French Insurance Federation (FFA)

²¹ Hearing held by the National Assembly on 06 November 2020 with the rector of the Academy of Caen, responsible for administering the Academy of Rouen

²² [http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/\(block\)/63919](http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/(block)/63919)

²³ Round table organised by the National Assembly on 12 December 2020, reported by the president of the Vitaines de Rouen association

²⁴ Hearing held by the National Assembly on 18 December 2020 with the director of the regional directorate for enterprises, competition, consumption, labour and employment

water (m³) given by the ratio between the quantity of substance released (150 t) and the maximum admissible concentration in the medium concerned (COD). Level 4 is retained ($0.1 \text{ Mm}^3 \leq V < 0.1 \text{ Mm}^3$).

Economic consequences (€17): When considering the sole economic impact affecting farmers, it was estimated to be nearly €6–7 million in direct losses and €20 million in reputational damage.²⁵ Level 6 therefore retained ($\geq \text{€}20\text{m}$).

THE ORIGIN, CAUSES AND CIRCUMSTANCES SURROUNDING THIS ACCIDENT

Origin and causes:

The judicial investigation to determine the origin and exact location of the fire outbreak is ongoing. Although it is not possible to determine whether the fire broke out on site A or B, testimonies and the sequence of the various alarms (smoke detection system in buildings on site B, melting of a manual alarm casing without operator action on site A) converge to suggest a fire outbreak zone in a perimeter comprising the storage area outside site A and the corner of buildings 2 and 3 of site B.



Circumstances that contributed to the spread of the fire:

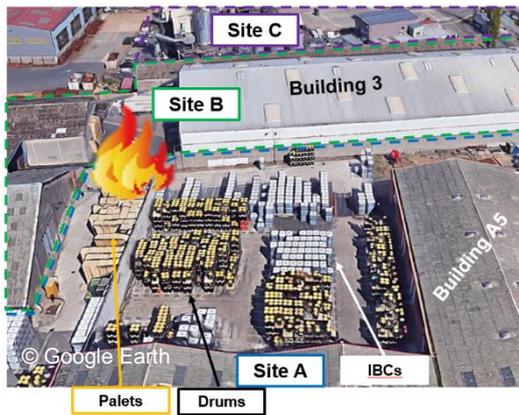
Proximity of sites A and B

The proximity of sites A and B and the presence of outdoor drums and IBCs on site A at distances less than 10 metres from the buildings (A5 on site A and building 3 on site B) favoured the spread of the fire and its uncontrollable development. Site B was not subject to a safety report.

Few people in the area and fire detection on site A that relies on human detection

It was 2:39 a.m. when an employee working on a shift on site C called the fire brigade to report the presence of flames on site A. From site C, site B obstructs the view of site A due to the position of building 3, which is 8 metres high, separating sites A and C. The flames were more than 8 m high by then. When the shift supervisor of site A received a call from the fire-fighters and from site C, he indicated that, at the same time, an alarm was sounding via a manually triggered fire alarm at the corner of the outdoor storage area on building A5 and building 3 on site B. Apart from the site A shift team, four subcontractor employees were in building A5 on site A for drumming operations. No worker on site A reported having triggered this alarm. This alarm was therefore triggered by destruction by flames. At the same time, a smoke detection alarm was triggered on the west side of building 3 adjoining the outdoor

²⁵ Round table organised by the National Assembly on 19 December 2020, reported by the president of the executive committee of the Seine-Maritime Chamber of Agriculture



storage area of building A5 on site A. The staff of site B works during the day. In the absence of an employee on the site, guard service is provided by a third-party remote monitoring company (smoke detectors with sensors on the roof for buildings 3 and 4 and optical smoke detection for buildings 1 and 2). When the fire-fighters arrived 13 minutes later, the flames were 20 metres high and the fire involved the outdoor storage area of building A5 on site A and building 3 on site B. Site A had no detection device but had automatic fire extinguishing in the outdoor storage area. Fire prevention and control measures in this outdoor area was based on human detection during rounds.

Very rapid spread of the fire

Among the products stored in this restricted fire zone, although there was no flammable liquid with a flash point below 60°C, most were category 4 flammable liquids (60°C < flash point < 93°C) or not considered to be flammable (flash point >93°C). Whether in building 3 on site B or in the external storage area of building A5 on site A, these liquids were stored on racks on several levels and in containers, such as metal drums (200 L) or plastic IBCs (1,000 L). Site A also stored new pallets outdoors.

IBCs are usually made of polyethylene (thermoformable plastic) surrounded by a steel cage. They can be equipped with an inside pocket to be compatible with the type of product they are intended for. Plastic IBCs are combustible because of the material they are made of. Heat melts the plastic and releases its contents. Fire-fighters describe the advance of the pool fire as an uncontrollable lava flow. Examples from accident analysis taken from the ARIA database show that IBCs, plastic, polyethylene, fiberglass and resin tanks, and even pallets of water bottles, empty or full, can ignite very easily, melt and release their contents,²⁶ which poses a problem, especially if the contents create a pool fire.



Fire water retention and containment systems not intended for a fire of this size

Site B was not equipped with any retention and containment system. The topography of the sites favoured the gravitational flow of combustible liquids and fire water, forming and spreading a fire pool. The containers (drums and IBCs) in the outdoor storage areas on site A were not on dedicated containment. The retention and containment of fire water was transported through open drains to a retention basin that can discharge into a reservoir then into septic tanks and reservoirs accessible to various areas on site A if connected with hoses. The volume calculated for these systems had been calculated in accordance with the regulations in force²⁷ but was insufficient given the extent of the fire. In addition, during the incident, the drain pumps extending from the basin to the various reservoirs near the production halls were shut down to prevent the spread of fire to those areas (production hall and storage tanks), reducing volume of retention and containment even more. The open drains and the first reservoir reached saturation very quickly (the volume of the drains and first reservoir is estimated to be about 200 m³), leading to the development of a pool fire that spread the fire to other storage areas. Pumping from the first containment reservoir to the septic tanks and other reservoirs was no longer possible because it was manually reset. However, the fire had surrounded the area and destroyed the power supply to the pumps.



²⁶ <https://www.aria.developpement-durable.gouv.fr/synthese/accidentologie-liee-a-lutilisation-des-grv/>

²⁷ Technical Guide D9A: practical guide for sizing fire water containment

Extinguishing capacities not sized for a fire of this size

The water tower on site A was sized at 2,000 m³. It was emptied after 1 hour and 30 minutes, due to the measures taken by site A and the fire-fighters (mobile resources, protective water curtains for units and staff for moving the phosphorus pentasulphide storage, building A4 water curtain, triggering of automatic sprinkler A5). It was the emptying of this tank that led to the fire spreading to building A5, which was no longer being protected by the sprinkler system. For the area where the fire required more than 20,000 m³ of water and a maximum extinguishing water flow rate of 2,160 m³/h, the site only had 2,000 m³ and an extinguishing water flow rate of 1,200 m³/h. All the buildings on site B, although they were well equipped with fire detection systems, had no water reserve and no automatic sprinkler system. Manual devices (not used) were available (fire extinguishers and small hose stations). Three fireboats and more than 15 km of fire hose had to be deployed to supply the area. However, there was never any interruption to the water supply, the fire-fighters having used fire hydrants of the municipal network each sized to deliver up to 60 m³/h. It was necessary to bring together 96 m³ of foam concentrates from three emergency services (SDIS) and eight industrial companies, including site A.

ACTIONS TAKEN

Legal investigation:

A week after the fire, the Rouen prosecutor's office withdrew from the case in favour of the Paris centre for public health because of the technical nature of the investigations. The charges filed for opening the judicial inquiry included "endangerment of life", "involuntary destruction by fire caused by the manifestly deliberate breach of a safety obligation" and "operation of a classified facility without compliance with the general rules".²⁸ The investigation is ongoing.

Transparency and dialogue committee:

The government set up a committee to bring together all the stakeholders affected by the fire (residents, elected officials, industrial companies, environmental associations, representatives of the agriculture sector, professional and trade union organisations, economic stakeholders and government and health services, among others). The committee, whose first meeting took place in the presence of three ministers, aims to monitor all the issues related to the consequences of the accident and share all the information.

Commission of enquiry and fact-finding commission:

The Senate created a commission of enquiry responsible for evaluating the intervention of government services in managing the environmental, health and economic consequences of the fire. It must also make it possible to collect information on the conditions under which the government services monitor the application of the rules that apply to classified facilities and deal with accidents and their consequences.²⁹

The National Assembly created a fact-finding commission to determine the long-term consequences of the fire on health, the environment and the economy of the territory, assess the regulations governing Seveso sites and the adjacent industrial sites and their respect by the stakeholders, discuss the creation of a "risk culture" policy and consider the modernisation of the means of informing the public in the event of industrial accidents so that everyone is aware of what is happening.³⁰

Administrative enquiry:

In support of the administrative enquiry conducted by inspection authorities for classified facilities, the Ministry for an Ecological and Inclusive Transition mandated the General Council for the Environment and Sustainable Development (CGEDD) and General Council for the Economy, Industry, Energy and Technologies (CGIET) to analyse the accident from a technical viewpoint and formulate recommendations based on the observations.³¹ The High Council for the Prevention of Technological Risks (CSPRT), bringing together state services, elected officials, experts, environmental associations,

²⁸ <http://www.cgedd.developpement-durable.gouv.fr/l-incendie-lubrizol-nl-logistique-du-26-septembre-a2910.html>

²⁹ http://www.senat.fr/commission/enquete/incendie_de_lusine_lubrizol.html

³⁰ [http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/\(block\)/63119](http://www2.assemblee-nationale.fr/15/missions-d-information/missions-d-information-de-la-conference-des-presidents/incendie-d-un-site-industriel-a-rouen/(block)/63119)

³¹ <http://www.cgedd.developpement-durable.gouv.fr/l-incendie-lubrizol-nl-logistique-du-26-septembre-a2910.html>

victims' associations, representatives of the business community and trade unions, also formulated a series of proposals in the meeting chaired by the minister for an ecological and inclusive transition on 13 January 2020.

LESSONS LEARNT

On 11 February 2020, the Minister for an Ecological and Inclusive Transition presented the government action plan aimed at getting feedback on this fire.

Click on this [link](#) to view the plan.