

# In 1976, Seveso's poisoned summer: 'Nature became our enemy'

By [Stéphanie Marteau](#) Published in LE MONDE on August 21, 2023, at 5:00 am (Paris), updated on August 21, 2023, at 12:56 pm (extracts)

On July 10, 1976, an explosion at a chemical plant near Milan, Italy, released a cloud of dioxin that durably contaminated the region and its inhabitants. This disaster led Europe to adopt its first directive aimed at preventing the risks associated with hazardous industrial sites.

Judging by her career arc, Alessia Borroni's election as mayor of Seveso in 2021 seemed predictable(...). She is also a native of the region, born in this former industrial town of 24,000 inhabitants, some 20 kilometers north of Milan.

But above all, and even though she was only two years old when it happened, she lived through the town's tragedy, the first industrial disaster to jolt public opinion, long before Bhopal in India (December 2, 1984) or Chernobyl in the Soviet Union (April 26, 1986): the explosion of the Icmesa plant on July 10, 1976, which released a cloud of dioxin into the air. While the accident did not cause any casualties, 193 children suffered from chloracne, a serious skin disease. Not to mention the abortions, the 800 people who were forced to move out, the 220,000 people placed under medical surveillance and the homes razed to the ground.

## **10,000 locations classified 'Seveso' in Europe**

And yet, this accident represents a seminal event in environmental law, as it led to the adoption of a major European directive on the prevention of major industrial hazards in 1982, the so-called "Seveso Directive." Amended twice, it was designed to identify establishments that present a serious environmental risk and set standards to prevent disasters. Since it came into force, 10,000 sites in Europe, including approximately 1,300 in France, have been classified as Seveso: Their operators are obliged to conduct studies to identify accident scenarios, assess their consequences and implement preventive measures.

In 1976, nothing of the sort was required from industrial companies... The Icmesa plant, part of the Swiss pharmaceutical group Givaudan, itself a subsidiary of the multinational Hoffmann-La Roche, had been built some 30 years earlier on the border between the towns of Meda and Seveso. It employed 200 workers and ran at full capacity without the local population really knowing what was being manufactured there. "Perfume? Weedkiller? It's never been clear to us. In any case, there were often foul smells," said Natalina Pontiggia, who lives not far from what's left of the plant(...)

## **The company's silence**

He and Graziella had married two months earlier and just bought a house. It was 12:37 am when a thick white cloud spread over the city, dropping fine particles on the ground. "We'd just had lunch under the magnolia tree in the garden, and it started to smell really bad. But

since it wasn't uncommon, we didn't get suspicious," recalled the former accountant. At the plant, on the other hand, the panicked handful of workers who were there rushed to a hangar where they had just heard an explosion: This was where trichlorophenol, a herbicide, was being manufactured. Tank 101 had overheated and the safety valve had blown. The production manager was urgently called in and managed to stop the leak at around 1:45 pm, more than an hour after the explosion.

"The weekend went on as usual," said Pontiggia. The local health authorities reassured the mayors of Seveso and Meda, the two municipalities the cloud had flown over. Discreetly, workers collected soil samples near the plant that were sent to Hoffmann-La Roche in Switzerland. "On Monday, small holes appeared in the magnolia tree's leaves," recalled Graziella. "We realized something bad had fallen from the sky. The birds had stopped singing. Animals like dogs, ducks and rabbits started dying too." According to Icmesa, it was a simple cloud of herbicide. Retreating into silence, the parent company provided no information on what the toxin was. As for the authorities, they simply advised against eating fruit and vegetables from the gardens.

(...)On July 20, the medical research center of Hoffmann-La Roche Laboratories finally delivered the results of its tests to the local authorities: The tank's overheating had triggered a chemical reaction, and between 300 grams and 2 kilos (no figure has ever been officially established) of dioxin – the infamous "Agent Orange" used by the Americans during the Vietnam War – had been released into the atmosphere. When humans are exposed to it, dioxin can cause severe liver damage, embryonic abnormalities, skin diseases and a form of acne that develops over time.

An investigation was launched, and the director and deputy director of the Icmesa plant were arrested. Throughout the summer, the local authorities, torn between contradictory expert reports, hesitated to take drastic action. Every time it rained, the dioxin, which is not soluble in water, seeped further into the ground, up to 14 centimeters deep.

## **Two reinforced concrete sarcophagi**

(...)On February 15, 1977, a decontamination plan for Meda and Seveso was finally adopted by Lombardy's regional authorities. Time was of the essence, as there was a risk dioxin could eventually reach the water table. The very next day, the work began: In Zone A, factories, workshops, buildings and everything they contained – souvenirs, clothes, photos – were torn to shreds. The house of little Stefania Senno was razed to the ground.

Black-and-white photos show tearful women under their dark headscarves behind barbed wire. Roads, sidewalks, tractors and buses were crushed to dust by the teeth of machines and debris was sealed in watertight drums. Excavators scraped away 25 centimeters of soil. 100,000 tonnes of earth were removed before trucks came in to dump new, clean earth.

Faced with strong protests from the local population, who rejected the creation of an incinerator to burn the waste because of the new pollution risk it represented, the region decided to bury the contaminated drums. Two 200,000 cubic-meter basins were dug under Zone A. Two huge reinforced-concrete sarcophagi, under constant surveillance, still lie there today, in the "dioxin graveyard," as it has since been named.



In 1976, the Icmesa plant in Seveso was fenced off and kept off-limits. MAURO GALLIGANI

In all, the Hoffmann-La Roche multinational corporation spent €183 million on the repair work, which took over 10 years to complete. Most of that money was spent cleaning up the area and rebuild infrastructure. In 1986, the Court of Cassation upheld the conviction, handed down a few months earlier by the Milan Court of Appeal, of Herwig von Zwehl, Icmesa's former technical director, and Jörg Sambeth, Hoffmann-La Roche's (Givaudan) former technical director. Convicted of omitting safety measures and causing disaster through gross carelessness, they respectively received two years and 18 months of suspended prison sentences.

As for the civil trial, it was only brought to a close in 2006, 30 years to the day after the tragedy, with victims receiving financial compensation.

## **Further disasters**

In 1982, the European Parliament did not dispute the need for better control of industrial activities, but its implementation still posed problems. In France, several serious industrial incidents followed by pollution episodes have occurred in recent years. In Toulouse, the September 21, 2001 explosion of a stockpile of ammonium nitrate at the AZF plant that was classified as a Seveso site left 31 people dead and several thousand injured. On September 16, 2019, a fire at the Lubrizol chemical plant in Rouen, which was classified as a Seveso high risk (the latest version of the directive, Seveso 3, which came into force in France in 2015,

distinguishes between "high risk" and "low risk" facilities based on the quantity of hazardous materials), rekindled fears about the dangers posed by the chemical industry.

For Julia Massardier, a lawyer for the Association des Sinistrés de Lubrizol (Organization of Victims of Lubrizol) in Rouen, despite the EU directive, there is an ongoing lack of transparency on the part of the industry and the French government, which is keen to protect these sensitive sites. It took her two years before she finally obtained the conclusions of the plant's impact and hazard study in 2021, which had been carried out by the operator and subject to the control and expertise of inspectors from the regional environment, development and housing authority.

"This risk study is the very identity of the site," pointed out Massardier. "It identifies the different incident scenarios that could occur, approved by the prefecture. These documents are normally available at Seveso plants. However, the document I was sent is largely redacted, with entire passages blacked out, making it unusable in court." The lawyer now intends to sue the state for failing to provide the oversight required by law.

Over time, Seveso has once again become a quiet town. It only has one hotel, the Lombardia, one snack bar, where young people come to kill time, and many closed-down shops. The only exceptions are the hairdressing salons where retired women go while their husbands hang out under the parasols of the municipal pétanque club. Located on the outskirts of Milan, Seveso is now an increasingly poor, sleepy, suburban town. "The town's population has grown from 19,000 to 24,000 over the last 10 years," said Borroni. "Property prices are still lower here than in the surrounding municipalities."