

# Workshop Presentation

## 9.4 HISTORY OF THE ASBESTOS BAN IN CASALE MONFERRATO

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My name's Daniela Degiovanni and I'm an oncologist as well as a councillor in Casale Monferrato, a small city in Northern Italy. Casale, unfortunately, has something in common with Osasco, something that influenced dramatically (and will influence for many more years to come) the life and health of its inhabitants and that is an Eternit plant

In our city, the plant, which occupied 94.000 square metres, was established in 1906 by an engineer who had bought the Italian rights to 'Eternit' – a patented new manufacturing process. Eternit: the name itself points to the exceptional long-lasting properties of products produced by this process. In particular, the Casale Eternit plant produced chimney flues and high pressure pipes – later also plain and corrugated boards, and even water tanks as well as tanks for other types of liquid.

Between 1906 and 1985 Eternit employed 5.000 people; in the fifties about 1000 people worked there and in 1965 there were 1600. In the following years the number of employees decreased gradually and in 1985 the plant finally closed down. 55% of the asbestos manufactured was extracted in Italy and 45% imported from South Africa.

Both chrysotile and crocidolite were used. Up to 1980, crocidolite represented 10-15% of the total asbestos used while in the final years of production crocidolite, which is known to be the most carcinogenic type of asbestos, was only used in the production of high-pressure piping, with a content up to 30%.

Up to the end of the sixties, production took place in a very dusty atmosphere with peaks of 228 to 529 particles/fibres per square centimetre; with the result that the workers' homes were also contaminated by the dust in their hair or clothes. No security measures were applied either inside or outside the factory or during the transportation of raw asbestos using open containers, with the result that its dust spread throughout the city. During all those years, there were open-air waste deposits where all day long the discarded articles from the plant and from other associated factories were broken up and destroyed. This was certainly one of the main pollution sources.

Other pollution sources were, for example, the dust generated during pipe and tube manufacturing; it was used as a base for courtyards in the city and as insulating material in lofts. Just think: 60% of the courtyards in Casale and surrounding villages are still made of this waste dust and, another example, all the jute sheets on which the cement and asbestos mixture was laid during the production phase were then recycled by the local farmers, as protection or covers for their tools and utensils.

After the closing down of the plant, the sources of pollution still existing are:

- the abandoned and crumbling plant itself, where you can still find piles of waste and discarded materials;
- asbestos covers and roofing (around 50-60% of the factories in the area have roofing of this type) partially damaged by the weather and time;

– lofts and courtyards;

– the river banks near the plant, which were almost entirely composed of asbestos. Here, a specialised team has applied a new reclamation technique that consists of burying the polluted areas by pouring over them indestructible material;

– inadequate disposal or reclaiming;

In 1985, Eternit closed down because of bankruptcy, the causes being many and also linked to the health problems. Since the seventies, in fact, the workers themselves supported by the Union, alarmed by the increasing number of tumours and lung cancers, established a Health and Environment board/commission. In 1976, after a long strike that had lasted 87 hours, the workers obtained an environmental enquiry to be carried out in 1977 by a clinical team. The enquiry, although carried out during a shutdown period, forced Eternit into making a few substantial changes in the production process, which reduced the problem substantially. In the same period, we also saw the beginning of relevant epidemiological research being carried out on asbestos and its effects. Actually, in 1960, Doctor Wagner and his team had already published the results of research that pointed out the presence of 47 cases of pleural mesothelioma in an area in South Africa where there were small factories working with asbestos.

In 1978, Doctor Selikoff proved that an excessive number of lung and pleural cancer cases were present among 17800 American and Canadian workers using insulating materials, with 486 lung cancer cases instead of the average 106, and 174 pleural cancer cases instead of none. In 1981, Rubino and his team from a specialised clinic in Turin pointed out that the mortality rate due to lung and pleural cancer, among workers dealing with asbestos – nearly all coming from Casale – were three times higher than the national average.

Doctors Capra and Piccolini from Casale, in 1983 published a case study carried out in the local hospital, where between 1973 and 1982, among the 61 cases of pleural cancer studied 35% were people directly in contact with asbestos.

In 1981, after 120 workers had been made redundant, the union and the workers obtained from the local Court a ruling that a second enquiry should be carried out. The dramatic results of this enquiry supported the workers charges and the cases were passed on to the State Attorney's office and, in spite of the Company's various appeals, were won by the workers.

In 1987, a team of doctors from Casale, in collaboration with the University of Turin, produced a mortality rate study based on Eternit employees, from which it was evident that, in 3367 workers employed between 1950 and 1980, the mortality rate from lung and pleural cancer was 16 times higher than the national average, and that the higher rate applied also to people who had worked in Eternit for less than 1 year. A further research study was carried out on the mortality rate of the workers' wives and that also revealed a statistically significant increase.

It was in those years that a special Regional Mesothelium Record was established and since then it has been continually updated; what stands out, unfortunately, is a gradual increase of the pathology for Casale and its surrounding area, not only among people exposed professionally but above all in the normal population, with 30 new cases per year.

An air quality study in Casale conducted in 1992 and confirmed by further studies in June 2000, revealed a presence of chrysotile and crocidolite fibres in the atmosphere 4-5 times higher than in Rome.

Since 1985, the town council has played an active part in the battle against asbestos. Two municipal ordinances forbid asbestos items to be employed in any type of building or construction; these two ordinances were 5 years ahead of Italian legislation.

The Eternit plant was bought for a nominal sum by the council and since then reclamation projects have been developed. Reclaiming the area is hard and difficult if you consider the extensive surface area, the high risk and the total lack of similar case studies on the subject. Our project, developed by doctors and specialists, is a pilot one that could be used in the future by other countries facing the same problem. In 1987 and 88 the Union and the local council, together with associations of the victims' relatives and families, sued for damages in a criminal prosecution case against the Eternit management. The trials lasted several years and among the witnesses there were many severely ill patients who told stories of incredible working conditions, such as the complete lack of the most elementary safety measures and means of protection, unloading asbestos from open containers with the use of a pitchfork and breathing the fibre saturated air while asbestos fell freely from the silos in such a quantity that it would knock over the workers standing nearby.

The judicial proceedings ended in 1993 with a Supreme Court verdict that sentenced all the management for manslaughter and for unpremeditated injuries. About 1700 people obtained 7.000.000 lira in compensation.

Reclamation has finally started and Casale will soon be an asbestos-free zone. But we are all well aware that the horror story has not come to an end and for the next 20-30 years we expect a worrying exponential increase in disease. Although the reclamation is conducted thoroughly and rigorously its implementation worries the community because of its complexity

But this story with no happy ending has taught something to all of us: doctors, scientists, researchers and the entire population – we must learn for our future. We live in a polluted and contaminated world where we are constantly exposed to dangerous elements through breathing, eating and drinking, often without realising it. Just think about electromagnetic waves or GMO. Well, we all have a moral duty to combat such hazards, regardless of origin. We must not allow the asbestos story to repeat itself; where many knew the implications for years but remained silent. We now have so many information sources and means of communication that anybody not reporting facts or even only harbouring suspicions would be guilty. Casale is here to bear witness that very often it is up to the normal citizen to act.

The green hill foreseen by our reclamation project, that will cover and bury the “death plant,” will become the symbol of reconstruction and remembrance