

## June the 22<sup>nd</sup> Eternit bis Hearing

By

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*The Defense: "More asbestos fibers from worn roofs and dust than from Eternit and crushing area"*

Expert witness Prof. Andrea D'Anna, a lecturer in Chemical Systems at the Federico II University of Naples (and not, as mistakenly reported previously, Occupational Medicine Specialist Dr Maurizio Danna), was asked by Stephan Schmidheiny's defense attorneys to answer three questions:

- i) to assess what influence the dispersion of asbestos dust from both the Eternit plant and the spread of dust, felts and waste had on the environment and air quality in and around Casale;
- ii) to assess the extent to which asbestos dust from both the *Eternit* roof-tops ("not replaced despite aging") and other sources of asbestos dust not referable to the Ronzone factory impacted on the people's health; and
- iii) to ascertain the relationship between the places of residence of the 392 victims (those for which the defendant is charged with murder with possible intent or willfulness) and the places where asbestos was surveyed.

How did the engineer D'Anna proceed on Wednesday, June 22, in the Assize Court in Novara, where the trial is being held

First, he identified all the manufacturing activities in the Casalese area where asbestos was used, or otherwise present: mainly, the defense expert summarized, in the fridge [?] manufacturing, mechanical construction and cement. And, in addition, it was present in small quantities in the clothing, food and wood industries. Meanwhile, the industrial warehouses themselves had asbestos sheet roofs, or it was used as an insulator in certain equipment, or in the making of particular panels, or in Linotype machine components.

The expert then concluded there was also an Eternit plant in Casale, starting in 1907 until 1986. He also mentioned a plant that manufactured asbestos products in Ozzano Monferrato (by Milanese & Azzi, later Fibronit). However, in the Monferrato Municipality the Mayor and historians who have studied the history of the town in detail confirm the presence of cement factories, but they firmly exclude and find no documentary evidence of the asbestos related activity quoted by D'Anna.

To complete the picture illustrated by the engineer, however, one should not forget that only at Eternit in Casale, in the Ronzone district, was asbestos used in massive quantities as a raw material (both chrysotile and crocidolite) for the production of sheets and pipes. In other areas it was not.

"Eternit" roofs, then, as the defense counsel pointedly noted, covered not only the warehouses of various plants (Eternit included), but also many other buildings; for example, the expert listed military barracks: the "Casermone (the big barrack)" at Porta Milano, the "Casermette (the Little Barracks)" at Valentino, the Mameli barracks on Via Cavour (town center), the

Castle that was the headquarters of the Military District, and the Shooting Range at Ottiglio, a hillside town just over fifteen kilometers from Casale.

Census data by Arpa (the Region's Environmental Agency) the defense consultant indicates that a total of 815,114 square meters of roofing was installed in the Sin (Site of National Interest for Asbestos) area of Casalese," consisting of 48 municipalities, of which 261,564 were in Casale itself. The expert stated that "88 percent of these roofs were installed before 1976."

Why emphasize the date? Because it is meaningful for the purposes of the current trial: it has already been mentioned several times, but it is worth reiterating that it was in 1976 that the Swiss entrepreneur inherited the asbestos factories sector, in Italy and abroad from his father Max; before that, it is documented that he was in the company, but he became formally responsible for it from 1976 until its closure in 1986, when Eternit filed for bankruptcy in Italy (ruled by the court in June).

D'Anna listed in addition to roofs - on warehouses, public and private buildings such as schools, hospitals, garages and so on - other sources of spreading asbestos fibers were, dust and production waste, used extensively to insulate attics or to strengthen paving in farmyards, courtyards, squares, roads, paths, sports fields and so on. And where did the dust and waste, used "improperly," come from? From the Eternit plant, of course, as the engineer reiterated, mostly before 1976.

He provided the numbers, again drawn from censuses: 11,285 square meters of dust were laid in the "Sin" municipalities (including 10,254 in the city of Casale alone) and 28,673 square meters of paving (including 15,926 in Casale). All this material- used for roofs, attics, and paving -was unfortunately exposed to wear and tear, caused by weathering, sudden temperature changes, mechanical actions such as breaking or rubbing of tires, used as paths for walking and so on.

Professor D'Anna, used the *Calpuff* calculation system of the dispersion of pollutants into the atmosphere, then identified, for each of the macrosources of asbestos, the "average fiber emission factor per hour." Here are the results calculated by the consultant in the Casale area: for roofing (i.e., all roofs), the average emission factor was 26 billion fibers per hour; for dust in attics, 540 billion fibers per hour; for paving (in streets, yards, courtyards, squares), 3000 billion fibers per hour. He then calculated the average emission factor for the Eternit factory in Via Oggero, which was found to be 400 billion fibers per hour, and in the former Piemontese area (also in Via Oggero, where open-air waste was crushed by passing over it with bulldozer crawlers) 230 billion fibers per hour. In all, between factory and crushing area: 630 billion fibers per hour, one-fifth that of the yard and playground paving on which kids played, or the roads traveled by car or bicycle. Only slightly more than the emission factor related to asbestos roofs.

Professor D'Anna's assessment is that, in terms of asbestos fiber dispersion, the town center of Casale was only marginally affected by the Eternit plant, while it was affected by a significant concentration of airborne fibers from the use of "eternit" artifacts (i.e., precisely, roofs, pots, water tanks, chimneys, pipes) or from the misuse of processing waste and dust distributed mainly in the 1950s/60s.

According to his calculations, the emissions from the wear and tear of the paving and dusting would have been from, about, 2 to 15 times greater than those caused by the open-air crushing of asbestos waste materials in the former Piedmont area! He stated the trial, "The results of the simulations unequivocally indicated that asbestos fibers resulting from erosion of roofing, re-suspension of dust in open attics, and paving in courtyards and streets by the mechanical crushing contributed significantly to the deterioration of air quality in the municipality of Casale and neighboring municipalities." In addition, "the action of any emissions from the plant was very low at one kilometer from the plant." In other words, "the plant's contribution to fiber concentration was very low already at the distance of 800 meters." The professor challenged the conclusions of the prosecutor's consultants, Drs Corrado Magnani and Dario Mirabelli, who had indicated ten kilometers as the dispersion capacity of the fibers into the atmosphere. D'Anna said that the fiber dispersion capacity of up to ten kilometers indicated by the prosecutor's consultants "is based solely on the epidemiological assessment of the risk of mesothelioma, which, for people who had lived within 10 kilometers of the plant, is higher than for a population not exposed to asbestos. According to the Neapolitan professor, consultants Magnani and Mirabelli indicated as a result of fiber dispersion the distance of ten kilometers "believing that the only source of fiber emission into the atmosphere was the Eternit plant." In fact, the results of the repeated studies carried out in Casale by Magnani and Mirabelli had shown that the risk to the population was highest for those who had lived near the plant and decreased progressively as the distance increased, although it still remained higher than the background value (i.e., compared with the unexposed population of Piedmont) up to a distance of 10 kilometers from Eternit. This finding is substantiated and published in authoritative scientific journals. It would, therefore, result incompatible with the claim that the risk was generated by numerous and widespread sources.

However, D'Anna insists that there were precisely also the roofs (especially when old), the dust in the attics and the "pavings," by far more infamous - according to the calculations he set forth - than the Eternit plant and the former Piedmont area combined.

### **WHERE DID THE VICTIMS LIVE?**

By taking into account the various sources of fiber emissions - the Eternit plant, other companies in the Casalese area, buildings with asbestos roofs, attics with dust and various beatings - the consultant also did extensive work comparing the 392 cases, i.e., workers and residents who died from asbestos listed in the indictment, with their proximity to any of these sources, to assess, in Dr D'Anna's opinion, what the most reliable source of dispersion, inhalation, illness and death may have been for each of them. He concluded that "55 out of 62 workers had at least one period of residence within 300 meters of a place where dust was misused as paving or within 50 meters of an attic with dust." And again, "312 out of 330 residents have lived, at least at some time in their lives, within 300 meters where there was improper use of asbestos and within 50 meters where an attic with dust was later found."

Where it is more difficult to find these measurements, Professor D'Anna says that these people nevertheless lived more than 300 meters from sites where asbestos was inappropriately used, or lived in houses where there was asbestos even though it does not show up in the census, or lived in areas not far from barracks and military installations.

In summary, the defense expert believes that the Ronzone plant and the former Piedmontese crushing area were not the only sources of the dispersion of asbestos fibers, because airborne fibers in Casale were mainly caused by the many "eternit" roofs that were not replaced when they were broken and the various "improper uses," that is, we repeat, attics and paving with powder, supplied by the Eternit factory, but almost all of it "before 1976," according to the professor. A certainty, that the expert should have carefully documented showing that, after those years, waste and dust were no longer from the Eternit plant.

### **AND THE LORRIES DRIVING AROUND TOWN?**

D'Anna's list lacks some data; for example, the Eternit Warehouses in Piazza d'Armi, the "Piccola Velocità" railway yard where the raw material arrived, the continuous coming and going for decades (even between 1976 and 1986) of lorries without tarpaulins that transported both bags of asbestos on the outward journey and finished artifacts on the return journey between the Ronzone plant and the warehouses in Piazza D'Armi were not mentioned as sources of the spread of fibers.

### **REPROACH ON THE BROKEN ROOF-TOPS**

Finally, throughout his report D'Anna repeatedly (& implicitly) reproached the Municipality of Casale and the District – Local Authorities and communities- who did not replace deteriorated roofs in time or remove widespread waste, paving or dust. The professor is quite right, yes, he is quite right. If only the people of Casale had known what the asbestos manufacturers already knew about the carcinogenicity of asbestos and which, with widespread propaganda, they kept hidden or downplayed for decades!

### **A SUITABLE LANDFILL**

Since 2001, Casale has had a specific facility for the disposal of decommissioned asbestos artifacts, and its construction was never opposed by the population, precisely because they were aware of the importance of having a suitable landfill to facilitate and accelerate remediation and decontamination. In fact, remediation began well before that, and at the time the decommissioned artifacts were being delivered to external landfills.) The seriousness of the matter was understood and as soon as it was possible the Las acted: the Casale area has mostly been decontaminated. Perhaps the best clean up in the world.

### **WHAT ABOUT THE ABANDONED PLANT?**

The community decontaminated the plant at Ronzone and in the former Piemontese area was abandoned by the Eternit company in 1986, at great cost. The Eternit Company appears to have been indifferent to the inevitable degradation that, as the defense expert himself explained, would have been caused by bad weather, rain, ice, wind, broken windows, collapsed (asbestos) roofs, sacks (containing asbestos) exposed to cross-winds.

In the Eternit maxi-trial, already held at the time in Turin, all the mayors and regional presidents (Governors) called to testify were asked if the defendant Schmidheiny or someone connected to him had come forward over the years to offer a contribution to the cleanup. Everyone's answer was, "No, never." The defense's excuse is well known: Eternit was bankrupt and, therefore, the cleanup should have been taken care of by the bankruptcy proceedings.

It follows the logic of "*it is not my responsibility*," used as justification in the judicial sphere by the defendant; the ethical conduct and conscience will fall to the man. Unfortunately, the painful bill is being paid by blameless and unknowing men and women in and around Casale, including the 392 men and women named in the trial and who are only a part, a small part of the total number. In other cities too, asbestos roofing was just as prevalent on warehouses and various buildings, in other cities too these roofs deteriorated (and there was a limited clean-up), in other cities too there were manufacturing of fridges, mechanical construction, clothing, etc. that, to some extent, used tools and insulation with asbestos, but let us go back and insist: elsewhere-where there were no factories of asbestos artifacts-there were not as many deaths as in Casale and its surroundings. Why?

#### **NEXT HEARING**

It is set for July 11: Professor Gary Marsh, from the University of Pittsburgh, will be heard in direct and cross.

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