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**How to manage securely the risk of Asbestos: intervention on the cover of the middle school Avogadro in Vercelli**

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The present thesis has its roots in a personal interest in the topic of construction sites safety and especially in asbestos health risks.

The aim of this work is to provide a guideline for everyone who deals with asbestos hazards – contractor, project manager, construction safety manager, executing company.

The asbestos issue has become increasingly relevant in recent years, due to its proven health dangers – which were actually already known in the 60s – together with a renewed environmental awareness permeating our contemporary society.

However, as often happens, there's also a lot of incorrect information flying around this subject. In fact, there are over 20 million tons of asbestos-containing building structures in Italy, which is a huge quantity, but they have different degrees of dangerousness. The real health risks occur when the product is in poor conditions, friable, and therefore asbestos can release its fibers.

On 28 April 1994, the enforcement of law 257/92 banned the production, use and sale of asbestos-containing products in Italy. This has moved the asbestos exposure risks from manufacturing sites to workplaces and homes. In the recent years, we can state that the only activities involving exposure to asbestos fibers are basically the removal and disposal procedures.

Over the next decades, we can predict that asbestos issue is to be one of the main dangers on construction sites and an increasing number of workers will be exposed to its health risks. Therefore, a clear and exhaustive legal instrument is necessary, both for the workers in charge of the removal operations, and for the construction safety manager, who coordinates the activities on sites where asbestos is present.

The wide and tangled asbestos-related regulatory framework includes ban on use, laws about the handling of asbestos-containing materials, and regulations concerning the protection of workers and environment.

The Consolidated Act on Health and Safety at Work (D.Lgs. 81/08) abrogates the pre-existing laws about asbestos exposure risks for workers. This new consolidated act aims to provide a national legal instrument on safety, and to suggest that this issue has to be taken as a whole and therefore needs combined interventions. Nevertheless, asbestos hazards are considered separately, without any attempt to relate it to other types of interventions. This is a serious normative gap, because in concrete situations, asbestos removal occurs during building renovation and during demolitions in order to erect a new construction. Building site organization will have to take into considerations not only standard schemes and devices prescribed by law, but also several additional preventative measures intended to assure safety for workers and for people living in the building which is being object of work and in the neighborhood.

The present work ends with the analysis of a case study, that is asbestos abatement procedures at "Amedeo Avogadro" high school, in Vercelli, where the above mentioned issues are examined, and a site security plan is proposed.

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