

INTRODUCE COMPULSORY RISK ANALYSIS FOR ROAD RISKS¹

Risk analysis can address complex issues, trying to grasp the critical elements and identifying the priorities and the modalities of intervention.

Through systematic application of these techniques it is possible to say that significant results were obtained in the field of industrial risk ("Seveso" Directives).

The same cannot be said for the problem of road risk, which is surely the first emergency of the times we live in, in the face of growing demand for mobility.

The application of techniques of risk analysis is well suited to analyze road risks, defining what level of tolerability can be accepted and describing in detail this methodological approach.

The continuing difficulty in being able to reduce the damage and the substantial non-compliance with EU directives that require us to halve the number of road casualties in ten years, demonstrates the ineffectiveness of the "deterministic approach".

This approach is based on the assumption that the measures of damage reduction are known a priori and only the proper application enables them to achieve the desired results.

The industrial risk Directives have instead taken a different approach, which we define, to simplify, "probabilistic approach"; this approach is based on the assumption that the "zero risk" doesn't exist, but that in order to reduce the risk we must first know and quantify it. Then you can take action on most important issues to reduce them and then, gradually, follow with those probabilistically less significant.

It is proposed to establish a threshold of tolerability of road risk, over which local governments are required to plan the risk mitigation and quantify the results.

The Study describes the methodology and proposes a criterium to apply the risk analysis to the road risks; it suggests also a proposal for the tolerability threshold.

¹ 22-23/11/05, Roma, 3ASI- Comando nazionale VVF, Edoardo Galatola - L'analisi di rischio come strumento di supporto alle decisioni L'applicazione delle tecniche di analisi di rischio industriale alla sicurezza stradale: una proposta metodologica e operativa

TRANSPORT POLICIES CAN CHANGE IF ONE CONSIDERS THE SAFETY STUDIES

Transport-risk analysis evaluates the risks to which the population is exposed when an accident triggers the release of matter or energy having the hazardousness characteristics of the goods being transported. Actually, the analysis is discontinued in the event-tree when no release occurs. The results of this type of approach can at times be astonishing. Indeed, logically one would expect that, when comparing the risks of transporting the same dangerous substances by road or rail, the road should come out the loser. Instead, all the Transport-risk analyses carried out so far show the risk level to be substantially equivalent.

The logic error lies in neglecting that the main danger in transportation is the mechanical hazard caused by the kinetic energy of the moving masses. Add to this the fact that a road tanker has to have high mechanical strength for safety reasons, and one realises that the likeliest event to occur in case of an accident is not the collapse of the tanker, but that of the other vehicles involved. Based on this consideration, an attempt was made to evaluate the hazard connected to the haulage of harmful goods, taking into account the disruption caused by road or rail haulage on existing traffic. The comparison will be made by the “traditional” (if thus it can be called) method and with the suggested new approach.

On the basis of the accident rate figures calculated in the study moving transport from road to rail would mean 759 less road fatalities and 77 more by rail, with a balance of 700 fatalities less per year in Italy (and 28400 injuries less). It should be noted that the road fatalities caused by goods transport are of the same order of magnitude as the total fatalities at work.

The importance of this information is evident, and has never been considered when drafting transport policies.