Loss Prevention and Safety Promotion in the Process Industries

Proceedings of the 10th International Symposium, 19-21 June 2001, Stockholm, Sweden

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Preface

Human fate is one of continuous struggle, falling and scrambling up. This is also that of the chemical engineer and Loss Prevention officer and the previous nine symposia are witness to that tragedy. In fact, we had not nine, but ten symposia because the first true international symposium on the subject in the United Kingdom in 1971 was the starting point for the series.

An accident is difficult to foresee if the knowledge of its possibility is not available. The previous Secretary of the EFCE Working party organising the symposia, John Bond, expressed that years ago in the Laws of Loss Prevention, which are a kind of "Don't be so stupid as not to look backwards and not to use past experience for future projects". A person's ability to think ahead is very limited, especially when it comes to predicting what can go wrong. An accident can happen easily or as the rhyme says:

Here lies the body of Henry Bank
Who struck a match to look in a tank
They buried him quickly before he stank

(John Bond, 1996, "The Hazards of Life and All that")

On the other hand we can say that the symposia have been very instrumental in generating and sharing knowledge in the Loss Prevention community, although it still can further improve. We have no index of previous proceedings and as yet no undertaking underway to make the information in previous proceedings more easily accessible. In the era of information technology I trust this is just a matter of time. Also on this occasion I am glad to report that the Scientific Committee did much work and put much effort into selecting good and interesting papers and helping to optimise the programme (and at this time of commercial approaches even without any compensation!).

The process industries and authorities are facing new challenges. Competition is a factor world-wide. Fewer people have to do more in the present plants. Safety requirements still go up. However overspending in equipment is wasteful. So where is the optimum? To determine this condition we need more facts. We need better models to describe the complex processes, which can make something go wrong. We need to know more about the properties of hazardous materials. We need more systematic approaches and concepts to get a grip on the safety situation and to be able to make the decisions for balancing safety requirements and economy in true risk control. In the present proceedings you will find examples.

The future will be quite interesting. The rapid growth of computational capabilities that we have seen over the past thirty years will continue as far as can be seen. This will enable a change in the science of chemistry and engineering from an empirical to a more systematic "ab initio" or "from first principles" approach. The number of rate equations of transport processes and chemical kinetics that can be solved simultaneously is increasing to such an extent that massive and detailed simulation becomes possible. Not only will this enable breakthroughs in process engineering, but also it will give our community the tools to make Loss prevention more predictive indeed. It means that we will be able to do a risk analysis and carry out successfully identification of the unwanted events, even if no accident or near miss has occurred already. So, are we working to make these symposia redundant? To a certain extent this may be true, but it will take a long time before such a dream becomes reality. Safety and certainty are highly valued in society and every piece of human work has its limitations. I hope you gain much from the contents of these proceedings.

Hans J. Pasman
Chairman Scientific Committee

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Topic 3
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Safety, health and environment in design and modification of processes and plants

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