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## **Simulating security hazards in the process of methanol storage**

The objective of the thesis is the identification and assessment of hazards generated in the process of methanol storage. The object of the analysis is a hypothetical warehouse facility defined and designed for this thesis. Risk analysis enables to isolate major hazard events. Computer simulations of all the emergency scenario cases make it possible to estimate the effects and the results of the physically assumed scenarios. The final result of the thesis research is a presentation of the type and size of the generated threats consideration of the storage process of methyl alcohol.

The conducted analysis shows that storage base failures lead to toxicity, fire and explosive hazards. Analysis results indicate that release of methanol to the environment creates a major hazard to maintenance, to natural environment and to human health and life.

### **Summary**

Keywords: computer modeling, methyl alcohol, process safety management, risk analysis

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