

Comparison of SEVESO II-Directive Implementations

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- 5) **Organizational unit:** Departement Maschinenbau und Verfahrenstechnik, direkt, Institut für Energietechnik, direkt, Kroger, Wolfgang, kroeger@mavt.ethz.ch, LZ=03292
- 6) **Project leader(s):**
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- 7) **ETH researcher(s):** no entry
- 8) **External researcher(s):** no entry
- 9) **Funding source(s):**
 - Industry
 - Own resources of the professorship
- 10) **Partner organizations:** no entry
- 11) **Short Summary:** Following the chemical plant accident at Seveso in Italy, the EU has launched in 1982 the SEVSO I-Directive and in 1996 the updated SEVESO II-Directive (Council directive 96/82/EC of 9 December 1996 on the control of major accident hazards involving dangerous substances).
- 12) **Keywords:** Engineering Sciences, Technology

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13) Project description:

Following the chemical plant accident at Seveso in Italy, the EU has launched in 1982 the SEVESO I-Directive and in 1996 the updated SEVESO II-Directive (Council directive 96/82/EC of 9 December 1996 on the control of major accident hazards involving dangerous substances). The purpose of the directive is given in article 1, which says "...the control of major-accident hazards involving dangerous substances aims at the prevention of major accidents and the limitation of their consequences for man and the environment, with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner." The directive defines guidelines, which have to be implemented in the regulation of each EU member country. Some countries follow a "risk based" approach, like United Kingdom, the Netherlands and the non-EU country Switzerland, which is in principle following the SEVESO II-Directive too. The other countries apply a "consequence based" approach. Further, the directive addresses also the "land use planning" issue, which is described in more details in an additional document (Guidance on Land Use Planning as Required by Council Directive 96/82/EC). The present project compares the risk based approaches implemented in United Kingdom, the Netherlands and Switzerland with the consequence based approach in Germany. The comparison outlines various aspects such as purpose of the regulation, types of plants and groups of persons affected by an accident, methods which have to be used for the risk analysis, acceptance lines for societal risks, limiting values for individual risks, use of the ALARP (as low as reasonable practicable) principle and legal positions. Finally, the project draws conclusion on applying aspects of probabilistic approaches to countries with consequence based approaches.

14) Popular description:

Following the chemical plant accident at Seveso in Italy, the EU has launched in 1982 the SEVESO I-Directive and in 1996 the updated SEVESO II-Directive. The purpose of the directive is given in article 1, which says "...the control of major-accident hazards involving dangerous substances aims at the prevention of major accidents and the limitation of their consequences for man and the environment, with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner." The directive defines guidelines, which have to be implemented in the regulation of each EU member country. Some countries follow a "risk based" approach, like United Kingdom, the Netherlands and the non-EU country Switzerland, which is in principle following the SEVESO II-Directive too. The other countries apply a "consequence based" approach. Further, the directive addresses also the "land use planning" issue, which is described in more details in an additional document. The present project compares the risk based approaches implemented in United Kingdom, the Netherlands and Switzerland with the consequence based approach in Germany. The comparison outlines various aspects such as purpose of the regulation, types of plants and groups of persons affected by an accident, methods which have to be used for the risk analysis, acceptance lines for societal risks, limiting values for individual risks, use of the ALARP (as low as reasonable practicable) principle and legal positions. Finally, the project draws conclusion on applying aspects of probabilistic approaches to countries with consequence based approaches.

15) Graphics: no entry

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16) Publications: no entry

17) Links to important web pages: no entry