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**Session III “Chemical Facilities Security:  
Communication Challenges”**

**Combating Interference by Unauthorised Persons  
-German Approach-**

*Dr. Hans-Joachim Uth, Federal Environmental Agency,  
Berlin*

# Overview

- New situation after September 11, 2001
- New Strategy for identifying and protecting security-relevant installations
- Hazard analysis
- Risk analysis
- Protecting security-relevant installations
- Related problems

# New situation after September 11, 2001

- Terroristic activities are not unusual in history
- Viewpoint of process safety: Limiting consequences rather than prevention
- Prevention of terroristic activities is a matter of politics
- However reality shows that politics is not very successful. We have to taken into account the threat of terroristic activities and their consequences for Chemical Industry.

# New Strategy for identifying and protecting security-relevant installations

The SFK proposed a unique strategy for identifying and protecting security relevant installations.

- In a 4 step procedure the hazards and risks of the establishments are identified
- the vulnerability for interference by unauthorised persons are assessed
- the framework for appropriate measures is given

## Installations/establishments concerned

**As a principal: upper tier Establishments** and installations  
**Case by case: lower tier Establishments** and installations, if hazard analysis is positive

### Security Analysis

#### Hazard analysis

- 1.) Description of major accidents despite precautions
- 2.) Identification of facilities requiring special protection
- 3.) Impacts of major accidents despite precautions cause serious danger to facilities needing special precautions

#### Risk analysis

- Vulnerability
- Importance of availability
- Symbolic character

Feedback to  
authority  
responsible for  
public security

positive

#### Environmental Protection authorities

Audit of operator's measures

#### Operator's measures

- Protection of site perimeter
- Protection of installations
- Raising employee awareness
- Supplementing safety reports and/or documentation of measures
- Notifying information necessary for preparing the external alarm and emergency plans

#### Emergency authorities

Immediate preparation of  
external alarm and  
emergency plans

# Operators duty:

- undertake a systematic examination of his establishment and installations whether they may represent a special target (**risk analysis**)
- investigate, whether interference by unauthorised persons with destructive intent is capable of giving rise to a serious hazard (**hazard analysis**).

# Hazard analysis

- Describing the establishments with potential of major accidents
- Identification of neighbouring facilities requiring special protection
- Assessment of the impacts of major accidents despite precautions on the facilities requiring special protection.

# Risk analysis

- **Assessment of the risk situation** (general security situation, size and composition of work force, quality of security organisation, social position of members of company management, nature of sales connections and foreign activities, crime situation to date etc.)
- **Local position of establishment and installations** (vulnerability from outside and in-side, distance from factory fence, visibility from outside, roads on and off site, situation of industrial estate)
- **The importance of availability of the installations for downstream production processes and services,**
- **The symbolic character of the company or the installation** (ownership situation, type of production and storage of substances, product range, significance of the company from an economic strategy point of view etc.)



# Protecting security-relevant installations

- **The perimeters of establishments** (site fence, gates etc.) must be secured by technical and organisational means to ensure that unauthorised persons cannot gain access without using force.
- **Non site personnel** should be kept identifiable. Visitors and external companies must be monitored appropriately.
- **Installations are to be protected** in such a way that unauthorised persons cannot cause a major accident without internal knowledge and/or technical aids.
- **Employees** must be made aware of the need to secure the establishment, and must be involved.

# Related problems

- “Good Security” Practice / Security Management
- Disclosure of security documentation
- Measures against internal offenders

# Security Analysis

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## Procedure for performing a security analysis

- 2.1 Determining and assessing the risk situation
- 2.2 Identifying the specific points at risk in the establishment
- 2.3 Assessment of hazards in relation to protection objectives
- 2.4 Selecting security measures, preparing the integrated security strategy

# Security Analysis

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## Risk situation

- 3.2 General safety situation
- 3.3 Membership of other companies
- 3.4 Local situation of establishment
- 3.5 Security management
- 3.6 Security organisation
- 3.7 Nature of production and storage
- 3.8 Importance of establishment for downstream  
production&services
- 3.9 Employees
- 3.10 Company management
- 3.11 Sales connections
- 3.12 Crime to date
- 3.13 Risk categories

# Security Analysis

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## Points at risk

- 4.1 Division into sectors
- 4.2 Consulting safety report
- 4.3 Table of points at risk

# Security Analysis

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## Hazard assessment

### 5. Hazard assessment

# Security Analysis

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## Security objectives

### 6. Security objectives

# Security Analysis

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## Description of security measures / security strategy

- 7.1 Location and position
- 7.2 External enclosure
- 7.3 **Site access controls**
- 7.4 Protecting areas at risk
- 7.5 Organisational measures
- 7.6 Security organisation
- 7.7 Alarm, surveillance and communication systems



# Security Analysis

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## Documentation

### 8. Documentation

## More Information:

Full Report: [www.sfk-taa.de](http://www.sfk-taa.de)

Presentation: [www.umweltbundesamt.de/anlagen](http://www.umweltbundesamt.de/anlagen)