Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

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Development and Evaluation of the Design Basis Threat in Germany

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Outline

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Situation in Germany

Development of the Design Basis Threat (DBT)

- threat situation, threat assessment
- roles and responsibilities
- different DBTs for different target materials and types of facilities

Integrated Security- and Protection Concept

Evaluation of the DBT(s)

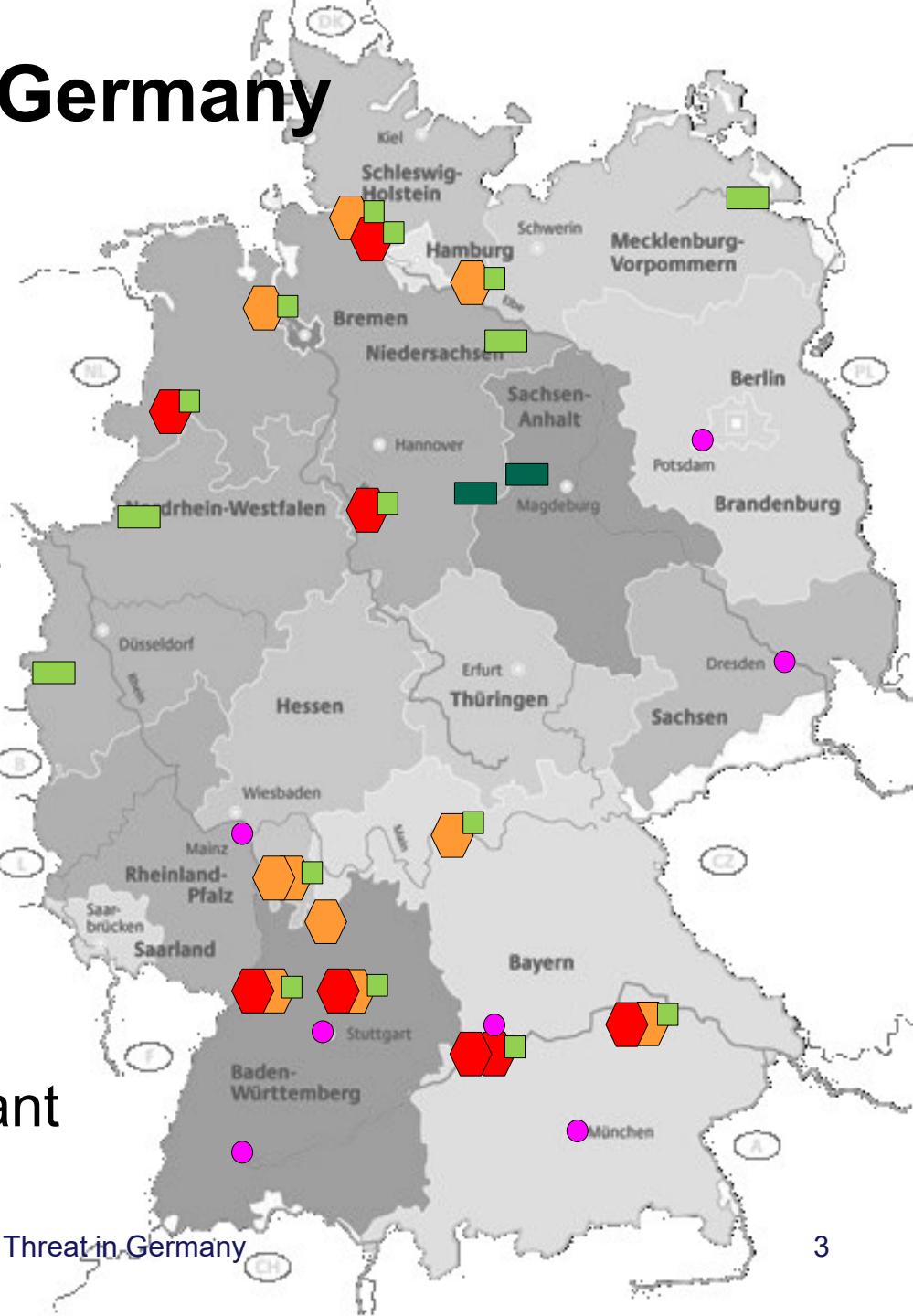
- evaluation cycle (modes: regular, triggered)

Nuclear Facilities in Germany

- 18 NPPs at 13 sites (8 still in operation)
- 7 research reactors
- 12 on-site interim storage facilities
- 4 central interim storage facilities
- 2 repositories for low and medium active waste

1 uranium enrichment plant

1 fuel assembly fabrication plant



Licence Prerequisite

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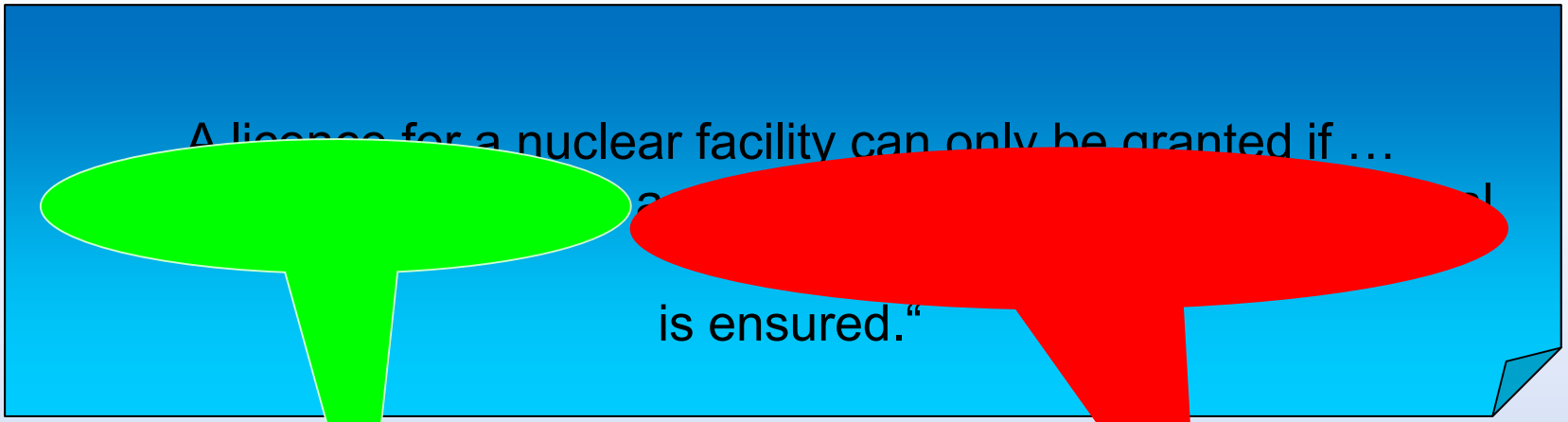

licence prerequisite defined in the National Law

ordinances and guidelines

threat situation

threat assessment
&
design basis threat

Threat Situation

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- constantly monitored and assessed by the national security authorities
- annual report about threat situation in Germany (focused on nuclear facilities)
- regular exchange of information between the competent authorities responsible for nuclear and the national security in permanent working groups
- ad-hoc information due to new insights

Threat Assessment

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- Input: Current threat situation in Germany
- Roles and Responsibilities are determined:

(permanent) working group

managed and chaired by BMUB

competent nuclear security authorities

and security authorities

consensus between all participants

- According to NSS No. 10 (except “motivation”)

Design Basis Threat (DBT)

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Threat assessment

Process of evaluating and decision making

➡ Legitimation by all relevant national committees up to the political level
(both authorities under nuclear legislation and of the interior)

DBT

classified document „confidential“ (2nd level of 4)

Top document within the nuclear security regulatory framework

Different DBTs

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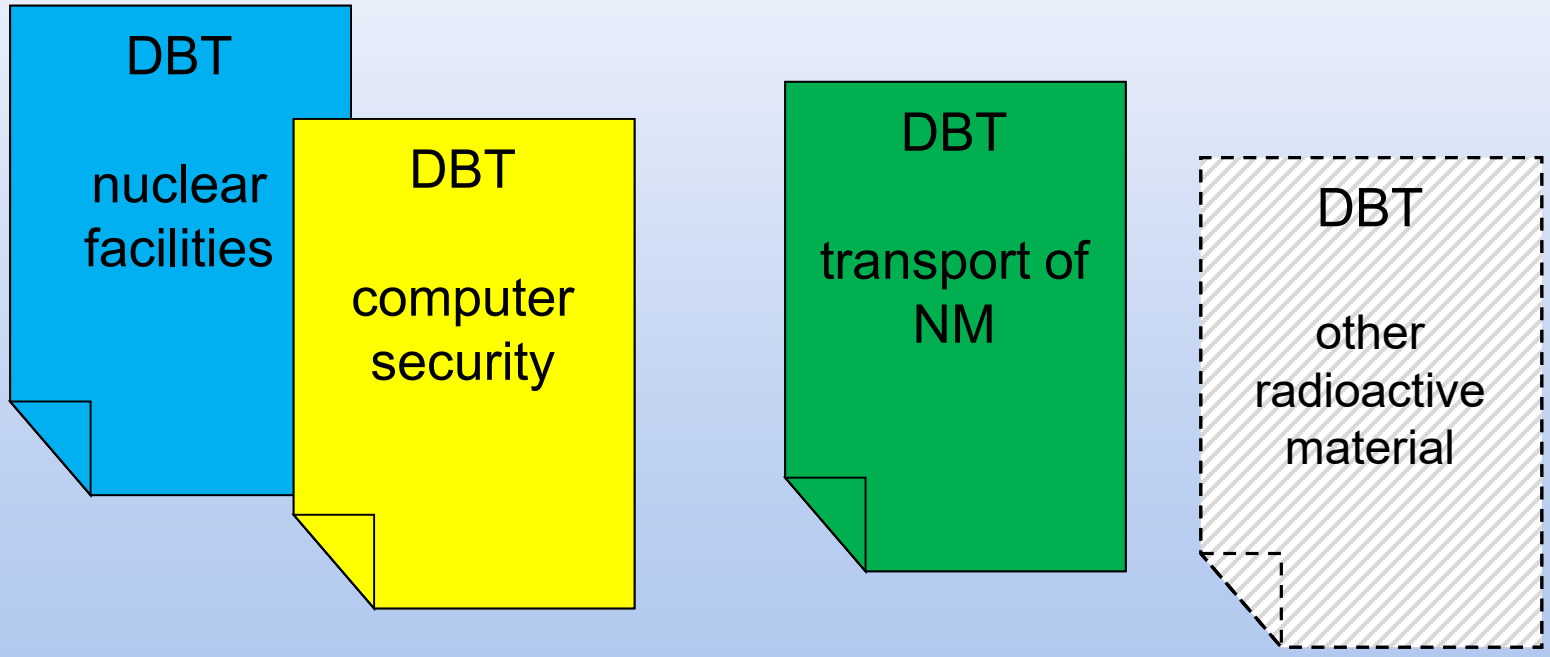
- Three (four) different DBTs reflecting different needs for protection (different target materials, different types of facilities)



Basis for Security Measures

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threat assessment

design basis threat

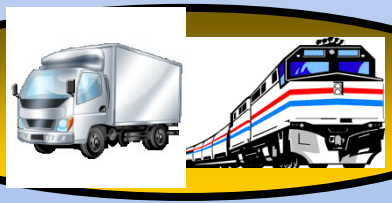
risk assessment

categorization nuclear material

analysis of possible release

graded approach

ordinances and guidelines



Integrated Security- and Protection Concept

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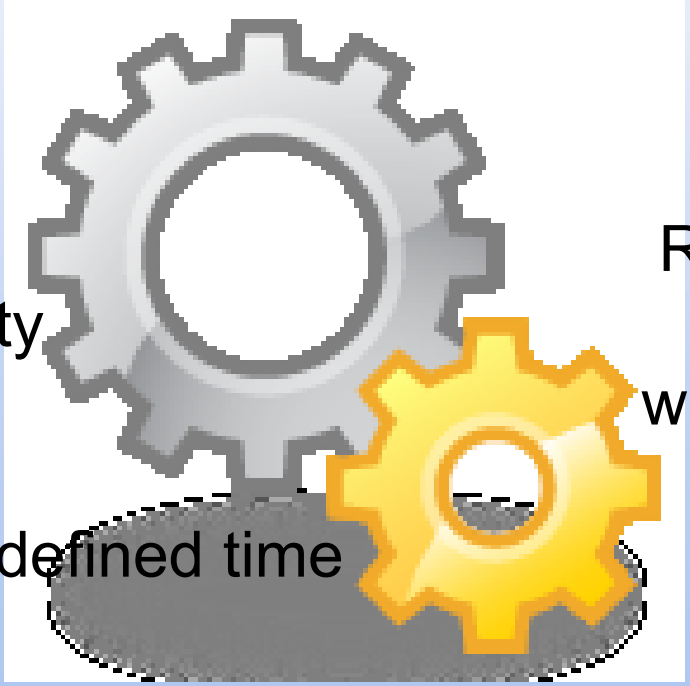
Since 1977 the nuclear security measures of the operator/ shipper and the protection measures of the State have to intertwine.

Operator/Shipper:

Nuclear security measures and security guards must protect the facility/transport providing delay for a defined time



State:

Response forces must take over within the defined delay time

Evaluation of the DBT(s)

- Regular evaluation every three years at the latest
- Triggered evaluation
  - new findings by the security authorities
  - incident not corresponding with the current DBT

in each case: process of approval up to the political level

- Modification of the respective ordinances and guidelines as consequence

Next regular evaluation starts in January 2018

DBT

nuclear facilities

Contact

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