

# DEVELOPMENT PROCESS TO IDENTIFY POTENTIAL DESIGN BASIS THREAT

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# Development process consists of two primary steps

- Conduct Threat Assessment of capabilities of relevant adversary groups
- Develop a DBT based on the Threat Assessment
  - Screening the threat assessment output for those threats with motivation, intention, and/or capability to commit a malicious act
  - Translating the resulting screened list into a statement of representative attributes and characteristics of the postulated adversary
  - Modifying the statement of representative threat attributes and characteristics on the basis of relevant policy considerations

# Threat Assessment for Radiation Protection Center

- An evaluation of the threats – based on available open source information that describes the motivations, intentions and capabilities of these threats
  - Not focused on attempt likelihood

# Development of representative adversary characteristics

- Performed in three steps:
  - Filtering of TA data,
  - developing composite description,
  - modifying for policy considerations
- Two initial documents developed:
  - One providing a broad description of the Design Basis Threat characteristics that would be public and part of published regulations
  - One providing the specific Adversary Characteristics that would be non-public and would be shared with those that have a need to know

# Filtering TA

- Worksheets developed identifying the specific detailed attributes of the events
- Filtering Criteria:
  - Relevance to targets
  - Capability data availability

# Developing Composite Adversary from Filtered TA

- Composite Threat Definition
  - Compare capabilities of all groups
    - Select reasonable characteristics of threats
    - Representing the bulk of the data
      - not worse case
  - Comprehensive yet concise definition
  - Provide complete description of capability
    - Sufficient description for defining requirements for Physical Protection Systems design and evaluation
    - May require extrapolation of existing data in TA

# Policy factors to consider

- Degree of conservatism of the DBT
  - Uncertainty in the baseline threat assessment
  - Robustness of DBT over time
  - Inclusion of potential threats for prudence
- Cost-benefit-consequence tradeoffs
  - Balancing benefit of asset, consequences of a successful malicious act and cost to reduce risk
  - Graded physical protection based on risk and consequence
- Political factors
  - Level of acceptable risk
  - Impact on public confidence
  - Contribution to public welfare
  - Confidence of neighboring states in protection
  - Threat situation in neighboring states