



RIC 2011 Security – Kinetic Change DBT Formulation

Jim Whitney
Nuclear Regulatory Commission/Office of
Nuclear Security and Incident Response
March 2011

1



- Design Basis Threat (DBT)
 - Definition of NRC's DBTs
 - History
 - DBT in Regulatory Process
 - Screening Process

2



DBT Definition

10 CFR 73.1 – Requirements for the establishment and maintenance of physical protection systems for the protection of power reactors and special nuclear material (SNM) at fixed sites, in transit, and of plants in which SNM is used.

- **Radiological Sabotage DBT** (applied to nuclear power plants): Safeguards model for protecting critical systems from **acts of radiological sabotage**.
- **Theft or Diversion DBT** (applied to Category 1 fuel cycle facilities): Safeguards model for protecting critical systems from the **theft or diversion of formula quantities of SSNM**.

3



DBT History

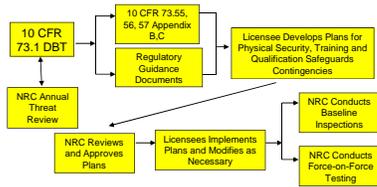
- 1979 – NRC establishes DBTs and commits to periodic threat reviews
- 2001 – September 11th terrorist attacks prompt staff re-evaluation of DBT Process
- 2003 - April 29, 2003 – Orders issued supplemental DBTs (Power Reactors & Category 1 facilities)
- 2008 – Final Rulemaking on Power Reactor Security Requirements sent to Commission

4



DBT Role in the Regulatory Process

It all starts with the DBT.....



5



Current DBT Process

- Staff provides threat basis using the adversary characteristics screening process
- Commission makes final policy decision regarding composition of either DBT (i.e. explosives, weaponry, adversary numbers, etc.)

6



DBT Process

Multiple step process involving:

- Intelligence information analysis
- Coordinate with Intelligence Community and Federal Law Enforcement
- Commission involvement during process
- Periodic meetings with stakeholders for feedback
- Final decision with Commission



7



Adversary Characteristics Screening Process

- **Step One:** The process begins with routine staff review of threat reporting
 - Is the characteristic in the DBT?
 - Does it demonstrate an increased capability?



8



Adversary Characteristics Screening Process

- **Step Two:** Additional Screening factors for items passing the first screening round.
Who, What, Where, Where, When, How, Why....



9



Adversary Characteristics Screening Process

- **Step Three:** Staff working-level interaction with IC and FLE agencies:



10



Adversary Characteristics Screening Process

- **Step Four:** Staff technical analysis
A generic assessment of the integrated effectiveness of applicable existing National, State, and Local response measures.



11



Adversary Characteristics Screening Process

- **Step Five:**
Preparation of a Disposition and Communication Plan.



12



Questions??

13
