Science and Technology Directorate Standards Portfolio

Bert M. Coursey

Challenges, Needs and Priorities in Homeland Security

ANSI
October 1, 2003

Homeland Security

Directive for Developing Standards from the OHS National Strategy for Homeland Security (July 2002)

"Set standards for homeland security technology.

 …build mechanisms for analyzing, validating, and setting standards for homeland security equipment…

 …develop comprehensive protocols for certification of compliance with these standards…"

Department of Homeland Security - Organization

Secretary & Deputy Secretary

- **Coast Guard**
- **Secret Service**
- **Citizenship & Immigration & Ombudsman**
- **Civil Rights and Civil Liberties**
- **Legislative Affairs**
- **General Counsel**
- **Inspector General**
- **State & Local Coordination**
- **Private Sector Coordination**
- **International Affairs**
- **National Capital Region Coordination**
- **Counter-narcotics**
- **Small and Disadvantaged Business**
- **Privacy Officer**
- **Chief of Staff**

Information Analysis & Infrastructure Protection
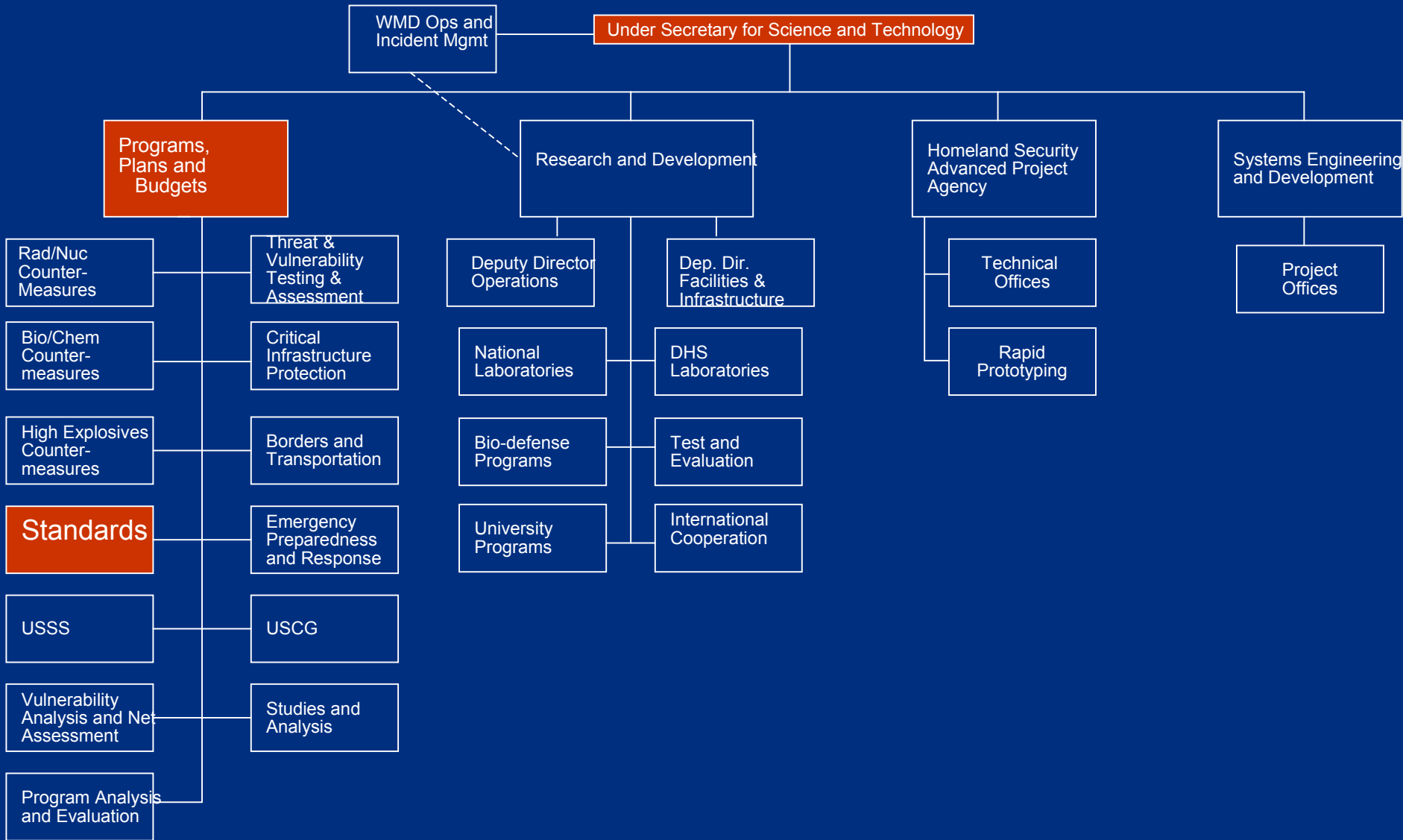
Science & Technology

Border & Transportation Security

Emergency Preparedness & Emergency Response

Management

Homeland Security

WMD Ops and Incident Mgmt

Under Secretary for Science and Technology

Programs, Plans and Budgets

Research and Development

Homeland Security Advanced Project Agency

Systems Engineering and Development

Rad/Nuc Counter-Measures

Bio/Chem Counter-measures

High Explosives Counter-measures

Standards

USSS

Vulnerability Analysis and Net Assessment

Program Analysis and Evaluation

Threat & Vulnerability Testing & Assessment

Critical Infrastructure Protection

Borders and Transportation

Emergency Preparedness and Response

USCG

Studies and Analysis

Deputy Director Operations

National Laboratories

Bio-defense Programs

University Programs

Dep. Dir. Facilities & Infrastructure

DHS Laboratories

Test and Evaluation

International Cooperation

Technical Offices

Rapid Prototyping

Project Offices

Homeland Security

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Objective for DHS S&T Standards Program

Ensure effectiveness of all components of systems employed to provide homeland security.

Objective for DHS S&T Standards Program *- con't*

- Effectiveness encompasses:
  - Basic Functionality
  - Adequacy for task
  - Interoperability
  - Efficiency
  - Sustainability
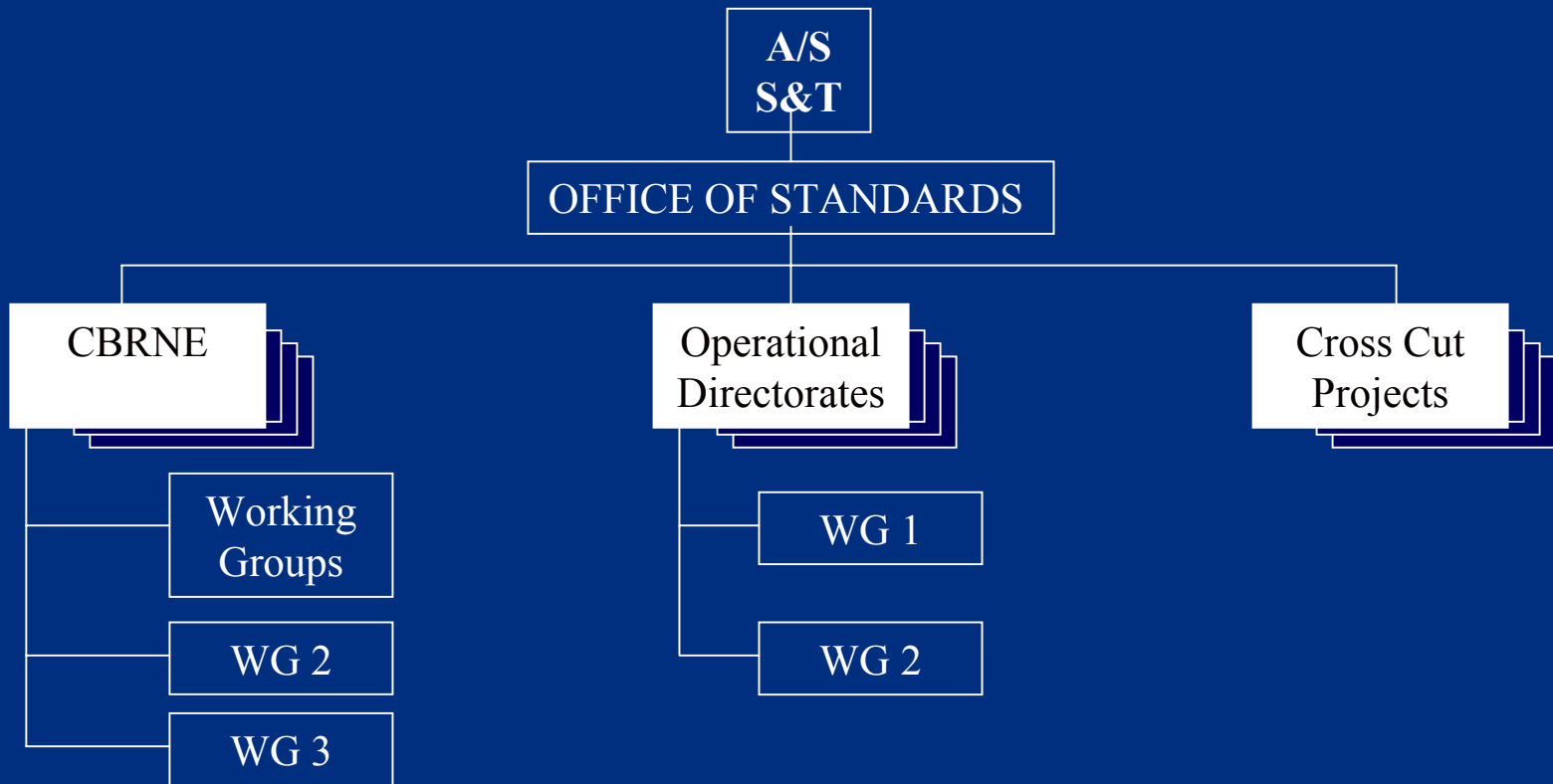
Objective for DHS S&T Standards Program *- con't*

- Systems include:
    - Instruments and instrument systems
    - Operators
    - Software and computational models and analyses
    - Information and data

Customer Driven Program Planning

- Stakeholders include
  - Portfolio managers who identify CBRNE threats
  - Three operational directorates (BTS, EPR/FEMA, IAIP)
  - Other DHS components (CIO, Coast Guard)
  - Emergency responder communities
    - Fire protection
    - Law enforcement
    - Emergency medical services

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A/S S&T

OFFICE OF STANDARDS

CBRNE

Working Groups

WG 2

WG 3

Operational Directorates

WG 1

WG 2

Cross Cut Projects

Threats (CBRNE)
- Radiological/Nuclear
- Biological
- High Explosives
- Chemical

Operational Directorates
- BTS (biometrics)
- EP&R (decon)
- IAIP (CIP and Cyber)
- Coast Guard (UAVs)

Cross Cut Projects
- Certification
- Communications
- PPE
- Training

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Process for Managing DHS Standards for All Elements of the Mission

Includes con-ops and environment, and technology capabilities/possibilities

Measurable specifications

Users

Developers

Threat /VA Analysts

Standards Experts

Guidelines

Performance Standards

System

Training

Model/ Analysis

Information

Equipment

Mission Elements

Reassessment

Testing Protocols

Certification

Address dynamic threat, changing technologies, evolving operations, and lessons learned

Templates for lab and field testing

Reliability of technologies, people, and/or testing labs

The absence of standards is creating confusion for the users

Does this work?

Does this solve the right problem?

How do I test this?

NOW AVAILABLE!

Radiation/Multi-Toxin Detection Meter

$299.99*

- Advanced Radiation and Bio-Chemical Agent Protection!
- Industry Leading Working Duration
- Completely Self-Contained
- Compact and Innovative De...

279

1000

TEST

* Special GSA rates on request

How do I use this?

Will this work with my other devices?
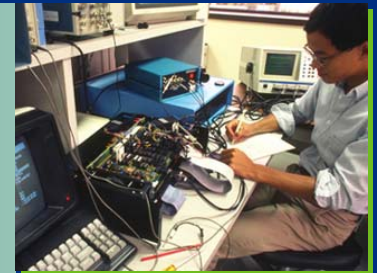
Should I buy this? How do I comparison shop?

Activities Ongoing in the DHS S&T Standards Portfolio

- Radiation detectors – IEEE ANSI N42

- Biological detectors – AOAC International

- Certification & Accreditation – NIST

- Standards Database – ANSI

- SAFETY Act coordination (update)

Activities Ongoing in the DHS S&T Standards Portfolio

- Radiation detection
  - ANSI Draft Standards balloted in September 2003:
    - ANSI N42.32 Performance Criteria for Alarming Personal Detectors
    - ANSI N42.33 Radiation Detection Instrumentation for Homeland Security
    - ANSI N42.34 Hand-Held Instruments for the Detection and Identification of Radioactive Isotopes
    - ANSI N42.35 Detection Portal Monitors for Use in Homeland Security
  - Compilation of USG and other test data underway
  - Draft Test and Evaluation protocols are under development at National Laboratories

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Process to Develop User Guidance on Existing Technologies

Guidelines

Assessment of Existing Radiation Pagers

Performance Specifications

Test Protocols

Product Comparison

	Product A	Product B	Product C	
Criterion 1	⊖	⊖	⊖	
Criterion 2	⊖	⊖	●	
Criterion 3	●	⊖	●	
Criterion 4	●	●	●	
Criterion 5	⊖	●	●	
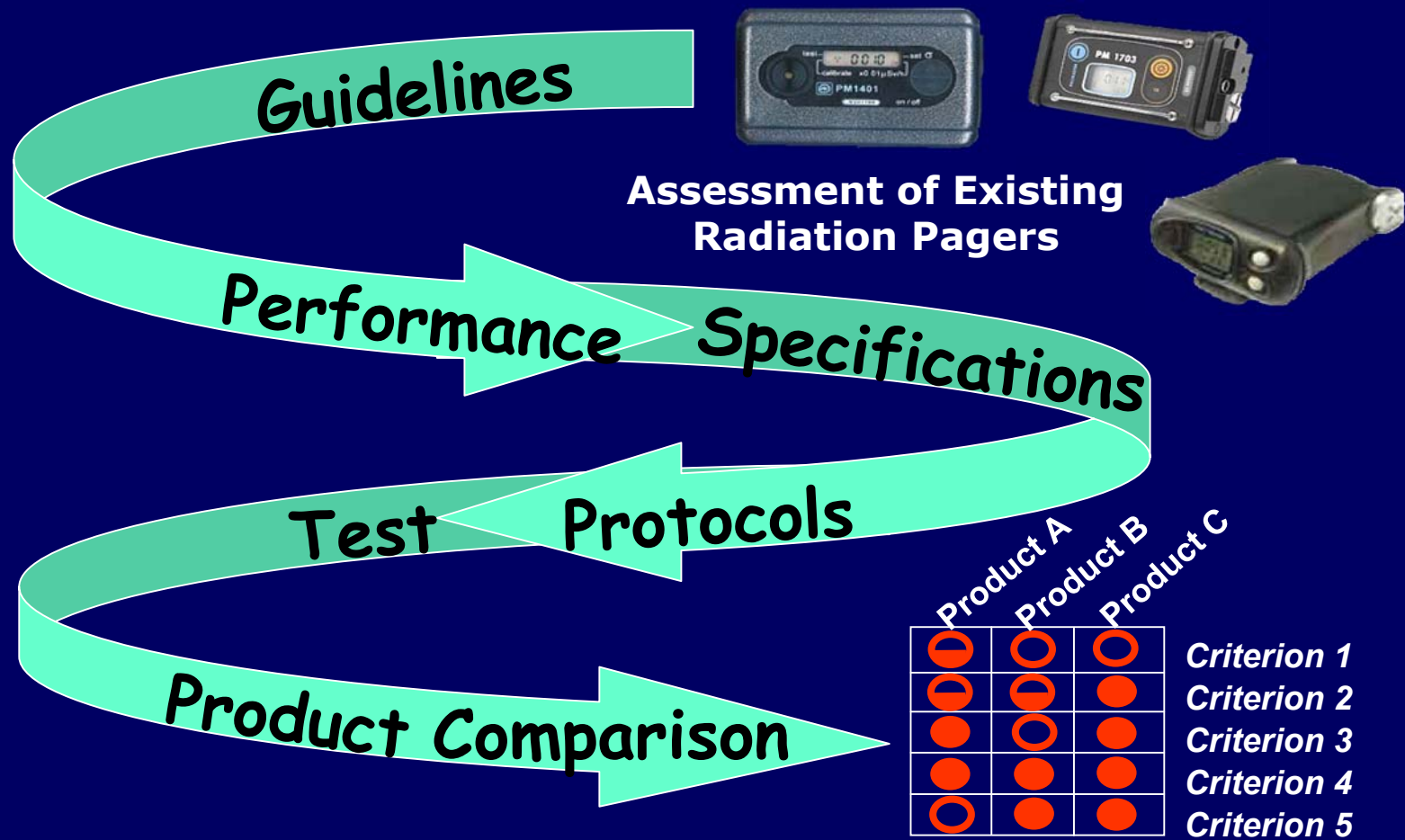
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Activities Ongoing in the DHS S&T Standards Portfolio

- Biological Detection
    - Contract with AOAC International to develop standards for anthrax immunoassay kits – partnering with DoD
    - Task Force formed federal, state and local stakeholders + private sector and universities
    - Reference laboratory selected – Dugway Proving Grounds
    - Six commercial hand-held immunoassays undergoing reference laboratory testing

Basic Hand-Held Assay:
Lateral flow immunoassay device

Samples with Anthrax will produce two colored lines

Samples are deposited in the well here

Anthrax Spore

Positive

Anthrax Spore

Negative
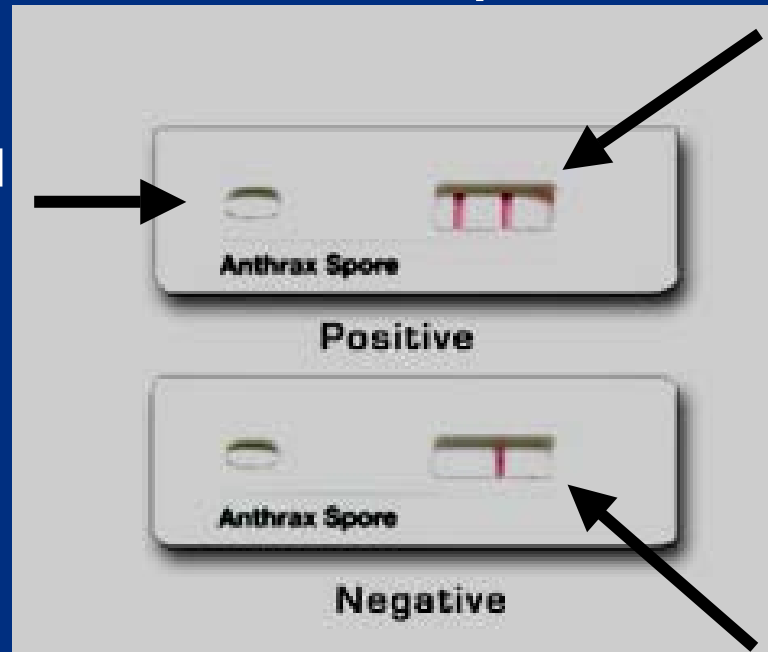
Samples with <u>no</u> Anthrax will produce one colored line

Activities Ongoing in the DHS S&T Standards Portfolio

- Contract with NIST Standard Services Division to develop models for product and services certification

- Contract with ANSI to develop multi-dimensional data base of standards related to homeland security

- Standards Development Organizations ongoing (ANSI HSSP)

- Participation in US Government – InterAgency Committee on Standards Policy (ICSP)

What about SAFETY Act?

Objective of SAFETY Act

- The SAFETY Act reflects the intent of Congress to ensure that the threat of liability does not deter potential Sellers of ATTs from developing and commercializing technologies that could significantly reduce the risks or mitigate the effects of large-scale acts of terrorism.

- Thus the Act creates certain liability limitations for "claims arising out of, relating to, or resulting from an act of terrorism" where qualified ATTs have been deployed.

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National SAFETY Act Seminars

Dallas, TX	Sept. 22
Los Angeles, CA	Sept. 23
Atlanta, GA	Sept. 24
Chicago, IL	Sept. 26
Washington, DC	Oct. 14

Science & Technology Directorate 202-205-4934

Homeland
Security

Topics Addressed in This Presentation

- What is the SAFETY Act?

- What types of protection are offered by the SAFETY Act?

- What are the criteria that must be satisfied?

- What are the post-designation responsibilities of Sellers?

- How may SAFETY Act protections be renewed and transferred?

Key Questions about the Application Process

- What **objectives** does DHS have for the SAFETY Act application process?

- What are the **steps** in the process?

- What is DHS doing to **inform me** about the process?

- What is a **"Pre-Application"** and how does it benefit me?

- What do I need to do **to apply** for a Designation or for a Certification?

- What kind of **notifications** does DHS provide to me?

- What is DHS doing to protect my **company proprietary** information? What about **classified** information?

Application Kit

- An Application Kit is provided by DHS as a service to potential applicants.

- The kit contains all background information, forms and instructions required for:

  ➢ Registration

  ➢ Pre-Application

  ➢ Designation Application

  ➢ Certification Application

Methods for Submitting Applications

- **SAFETY Act web site** → www.safetyact.gov
  - Automatic e-mail notifications
  - No risk of translation issues during paper scanning process
  - No delay in evaluation process
- **Mail to** → Department of Homeland Security
  ATTN: SAFETY Act
  245 Murray Lane, Building 410
  Washington, DC 20528
  - Hard copy (type-written paper copies only!)
    - ✓ DHS will convert to electronic format
  - Soft copy (CD-ROM only!)
  - Subject to security screening
    - ✓ will delay start of evaluation process

Accessing the SAFETY Act Website

- www.safetyact.gov

- 128-bit SSL encryption

- COI/NDA agreements per application (pre, QATT, GCD)

- Disable popup blocker software when using SAFETY Act application

- NO CLASSIFIED DATA!

Getting Help

- SAFETY Act website: www.safetyact.gov
    - FAQs
    - Online Help Topics
    - Help Request - on-line form sent to Help Desk for response
- E-mail: helpdesk@safetyact.gov
- Toll Free Phone: 1-866-788-9318