



# **Overview:**

## **The U.S. National Source Tracking System**

**Michelle Killian**

National Source Tracking System Industrial Radiography Workshop  
Houston Texas  
September 9, 2009

# Agenda

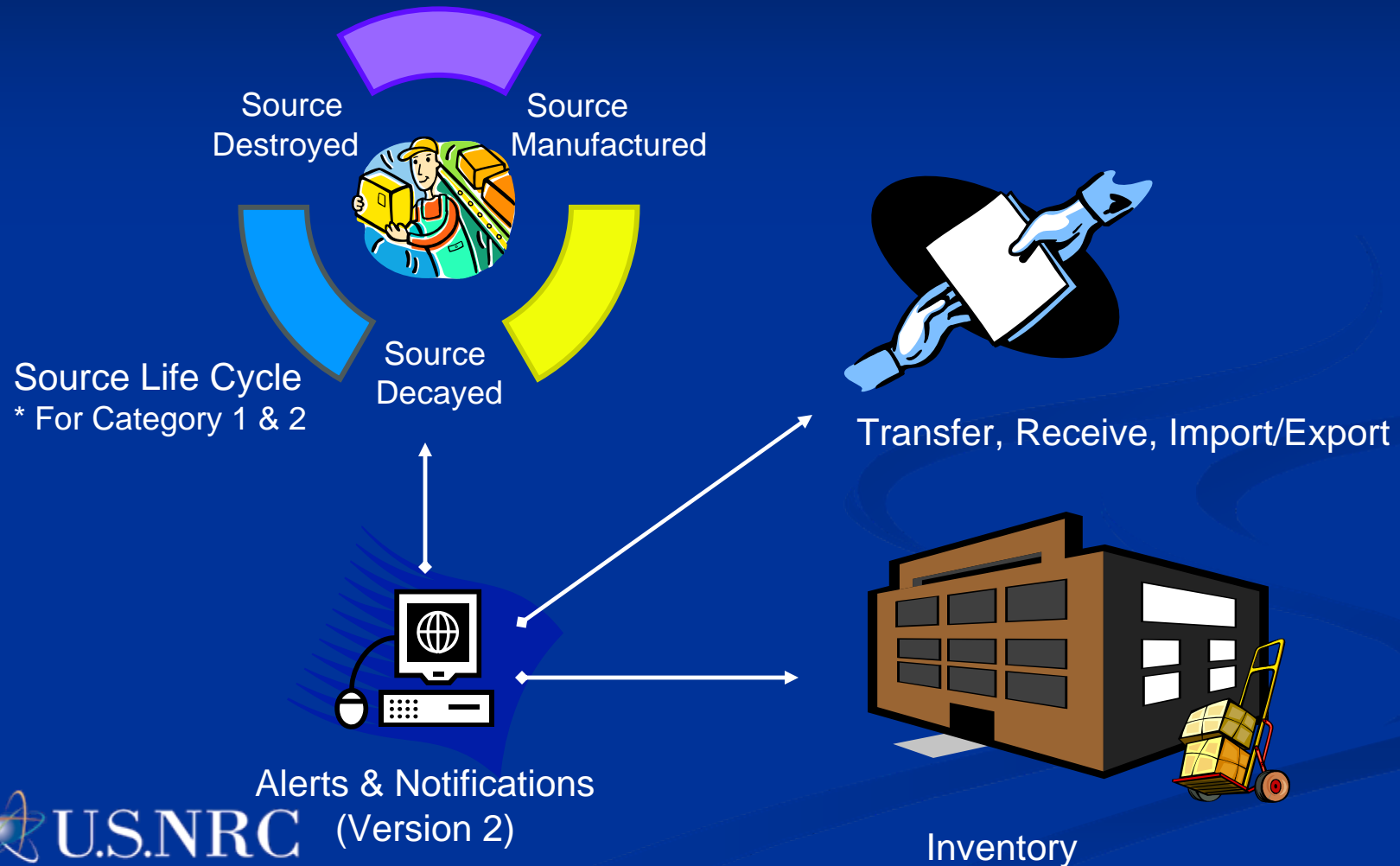
1. Overview/Background
2. Experience with NSTS & Outreach
3. Potential Expansion of the System

# Background

- International/Domestic commitments
- Stakeholder coordination
- System deployed December 2008
- Regulations in 10 CFR 20.2207 or Agreement State equivalent



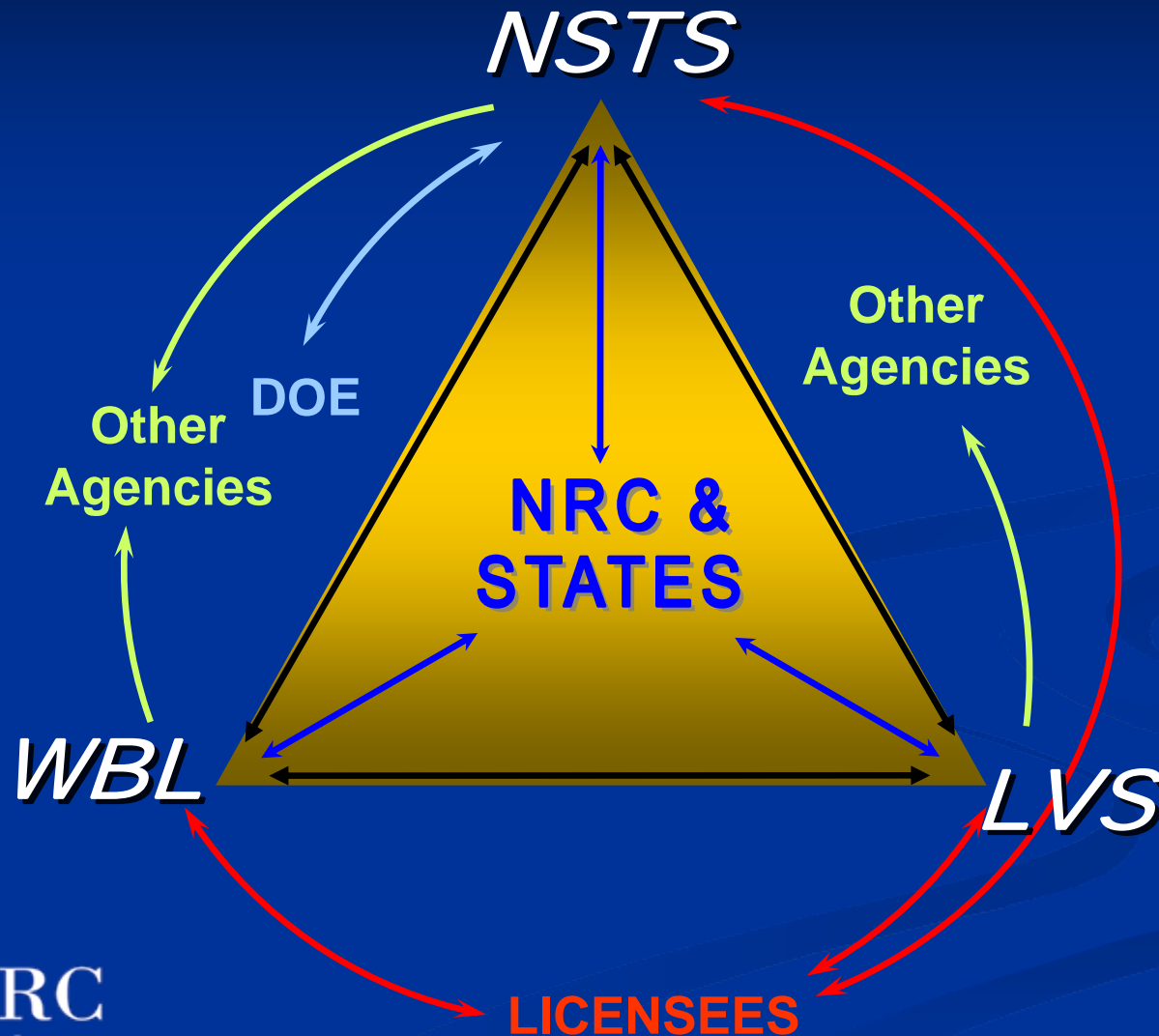
# What is NSTS?



# Nationally Tracked Source Thresholds

Radioactive Material	Category 1 (TBq)	Category 1 (Ci)	Category 2 (TBq)	Category 2 (Ci)
Actinium-227	20	540	0.2	5.4
Americium-241	60	1,600	0.6	16
Americium-241/Be	60	1,600	0.6	16
Californium-252	20	540	0.2	5.4
Cobalt-60	30	810	0.3	8.1
Curium-244	50	1,400	0.5	14
Cesium-137	100	2,700	1	27
Gadolinium-153	1,000	27,000	10	270
Iridium-192	80	2,200	0.8	22
Plutonium-238	60	1,600	0.6	16
Plutonium-239/Be	60	1,600	0.6	16
Polonium-210	60	1,600	0.6	16
Promethium-147	40,000	1,100,000	400	11,000
Radium-226	40	1,100	0.4	11
Selenium-75	200	5,400	2	54
Strontium-90	1,000	27,000	10	270
Thorium-228	20	540	0.2	5.4
Thorium-229	20	540	0.2	5.4
Thulium-170	20,000	540,000	200	5,400
Ytterbium-169	300	8,100	3	81

# Integrated Source Management



# NSTS Overview

- Reporting by approximately 1,300 licensees with over 50,000 sources
- Source Transaction Reporting
  - Manufacture, import, export, transfer, receipt, disassembly, disposal
- User training
- System easy to use



# NSTS Security

- High level of system security
- NRC is a pioneer agency
- Access requirements
- Access controls





# Credentialing Process for Access to NSTS



**Step 1**  
Applicant enrolls  
online  
<https://pki.nrc.gov>

**Step 2**  
Online application is  
reviewed and approved

**Step 3**  
A paper identity proofing packet  
is mailed to the applicant

**Step 4**  
The paper packet is completed by  
the applicant, notarized, and  
mailed back

**Step 5**  
The paper packet and online application  
are reviewed, anomalies are resolved with  
the applicant, employment is verified and  
the enrollment is approved

**Step 6**  
A smart card and reader are  
mailed to the applicant



**Step 7**  
Reader is installed and  
used to download the  
applicant's certificate to  
the smart card

# Where We Are Today

- 983 cards shipped
- 566 licensees have certificates
- Over 400 licensees with no certificate
- Increasing online usage
- Outreach efforts





# Upcoming Activities

**Version 2**

**Renew Certificates**

**NSTS Software Enhancements**

**Annual Inventory Reconciliation**

**Enhance Communication & Outreach**

Revision of NSTS Website, Updating 748 Form, Additional Training

# NSTS Expansion

1. April 11, 2008: Proposed rule published for public comment to expand NSTS to **1/10 of Category 3**
2. June 10, 2009: Final rule provided to Commission to expand NSTS to **Category 3**
3. June 30, 2009: Commission was unable to reach a decision => **no expansion at this time**





# Comments & Suggestions

**NSTS Website:**

**<http://www.nrc.gov/security/byproduct/nsts.html>**

**NSTS Help Desk:**

**[NSTS.Help@nrc.gov](mailto:NSTS.Help@nrc.gov)**

**1-877-671-6787**



# Questions

