

**U.S.NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

# **Briefing on Materials Licensing and Security**

**April 30, 2008**

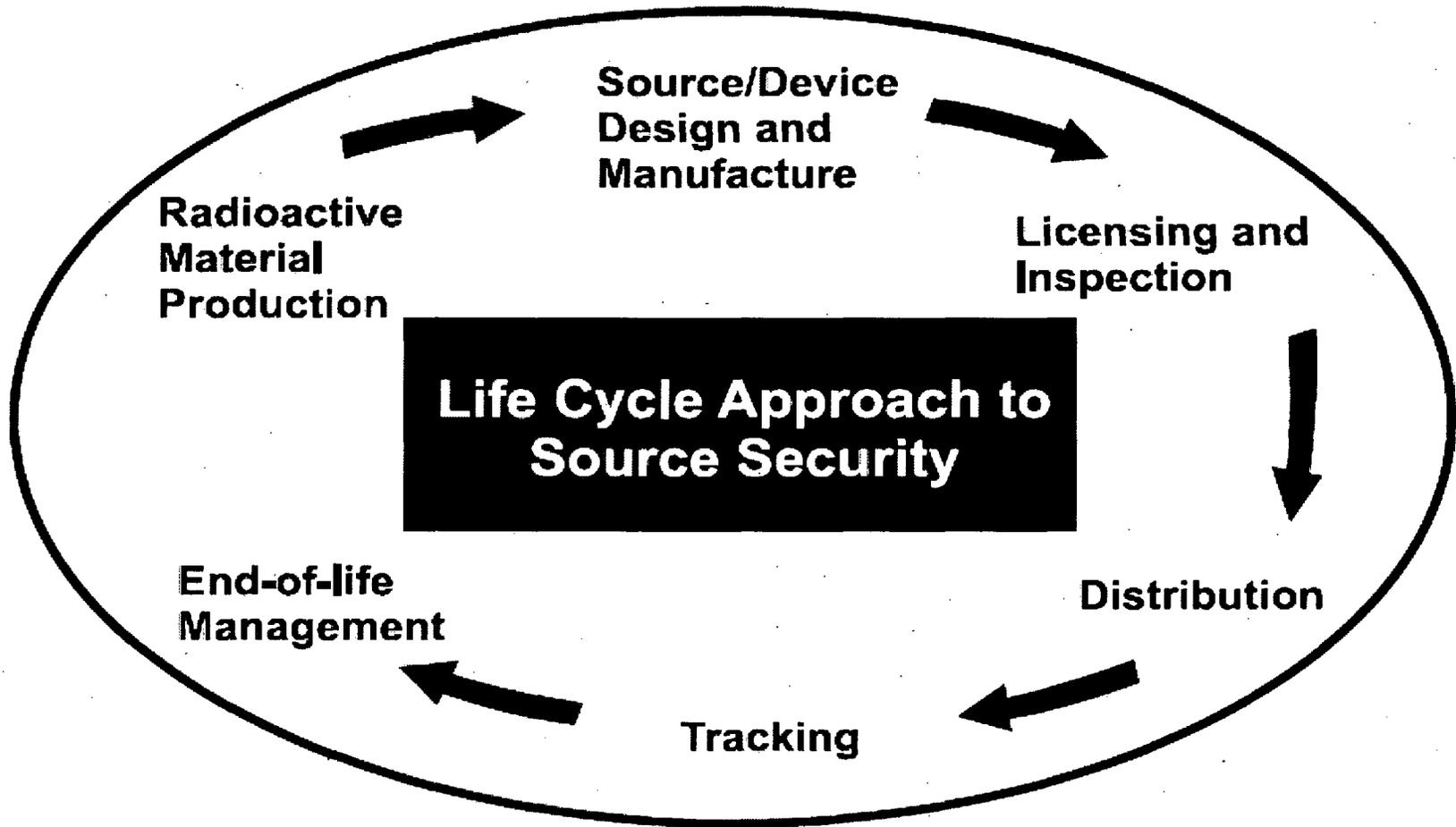
**Office of Federal and State Materials and  
Environmental Management Programs**

**and**

**Office of Nuclear Security and Incident  
Response**

# **Overview**

- **Security and Control Program**
- **GAO Investigation & Action Plan**
- **National Source Tracking System**
- **Web-Based Licensing**



# **Security and Control Program**

# **Materials Security Pre-9/11**

- **Security Considered in Safety Programs**
- **Not Focused on Malevolent Acts**
- **Recognized Need to Improve Control of Risk-Significant Sources**
- **IAEA Code of Conduct under revision**

# **Material Security Post-9/11**

- **Applied a risk-informed graded approach to significantly enhance materials security**
- **Issued Orders: Large Irradiators, Manufacturers/Distributors, Transportation, Increased Controls, and Fingerprinting**
- **Fingerprinting Order for non-M&D Service Providers**

# **Interagency Coordination**

- **Radiation Source Security and Protection Task Force**
- **Nuclear Government Coordinating Council**
- **NRC/DHS/NNSA Trilateral Activities**

# **Radiation Source Security and Protection Task Force**

- **Chaired by NRC with Federal and State participation**
- **Evaluate the security of radiation sources**
- **Primary vehicle for advancing issues across the government**

# **Radiation Sources Subgroup**

- **Develop a definition of what constitutes a significant RDD/RED and report to the task force by May 2008**
- **Re-evaluate lists of isotopes and threshold values that warrant enhanced security and protection and report to the task force by November 2008**

# **Cesium Chloride Subgroup**

- **Conduct a study to assess the feasibility of phasing out the use of CsCl**
- **Final Report - estimated August 2008**

# **Alternative Technologies Subgroup**

- **To evaluate the alternatives for Category 1 and 2 sources**
- **Requested task force approval to submit Final Report - Spring 2009**

# **National Academies Study on Source Use and Replacement**

- **The National Academies recommendations to enhance the safety and security of radiation sources are welcomed**
- **These recommendations will serve as an important point and are being considered along with others from a number of different sources**

# **National Academies Study on Source Use and Replacement (Continued)**

- **Replacement of radiation sources with alternatives should be implemented with caution, ensuring that the essential functions that radiation sources perform are preserved.**

# **Related Security Rulemakings**

- **Physical security of sealed sources**
- **GL Rulemaking**
- **Transportation Security**
- **Fingerprinting/Access Authorization**

# **Increased Controls**

- **Increased Controls – Issued 11/05**  
**Enhance control of material to prevent unauthorized access for malevolent use of material or mitigate consequences**
- **Implementation Status**
- **Program Review**

# **Fingerprinting for Increased Controls**

- **Fingerprinting – Issued 12/07**  
**Fingerprinting is designed to assist in the determination of the trustworthiness and reliability of an individual prior to being granted unescorted access to radioactive material**
- **Implementation Status**

# **GAO Action Plan Status**

## **2007 GAO Investigation**

- **Applied for and Obtained NRC License**
- **Altered NRC License**
- **Contacted Suppliers to Sell Material**
- **Parallel Attempt to Obtain Agreement State License Aborted When Notified of Site Visit**

# **Action Plan Overview**

- **Immediate Actions**
- **Independent External Review Panel**
- **Pre-Licensing Working Group**
- **Materials Program Working Group**
- **NSTS and WBL**
- **GL Rulemaking**

# **Independent External Review Panel**

- **Report issued March 11, 2008**
- **Commission Briefing  
March 18, 2008**
- **Findings**
- **Staff actions**

# **Pre-Licensing Working Group**

- **NRC and Agreement State Co-Chairs**
- **Issued revised pre-licensing guidance on January 15, 2008 to determine the legitimacy of applicants and uses**
- **Being implemented by all regions and states**

# **Materials Program Working Group**

- **NRC and Agreement State Co-Chairs**
- **Three Objectives**
  - **Short Term Solutions**
  - **Evaluate Independent Panel Recommendations**
  - **Review of Materials Program**
- **Pending policy issue on transfers**

# **STATUS OF NATIONAL SOURCE TRACKING SYSTEM**

# **National Source Tracking System**

- **System tracks transactions of Category 1 and 2 sealed sources among NRC and Agreement State licensees; includes DOE sources**
- **Designed and developed in conjunction with stakeholders**

# **National Source Tracking System Status**

- **Development completed; testing underway**
- **Contractor has begun setup of hosting environment**
- **Initial Deployment 12/2008**
- **Licensees begin using 1/31/09**
- **MPKI**

## **Next Steps**

- **Rulemaking to expand NSTS**
- **NSTS-Web-Based Licensing Interface**
- **Procedures for access to information**
- **Interim Inventory**

# **Status of Web-Based Licensing**

# **Web-Based Licensing**

- **Replacement of License Tracking System used for Materials Licensing**
- **WBL development in coordination with Agreement States – Working Group**
- **Proceeding with procurement**

# **Automated License Verification Service**

- **The purpose is to establish automated verification checks using WBL and NSTS data**
- **Responsive to both GAO and IERP Recommendations**
- **Development in FY10**

# **Vision and Future of the Materials Security Arena**



# Acronyms

- **CsCl – Cesium Chloride**
- **DNDO - Domestic Nuclear Detection Office**
- **DOE – Department of Energy**
- **DHS – Department of Homeland Security**
- **GAO – Government Accountability Office**

# Acronyms

- **GL – General License**
- **IAEA – International Atomic Energy Agency**
- **IERP – Independent External Review Panel**
- **M&D – Manufacturer and Distributor**
- **MPKI – Managed Public Key Infrastructure**

# Acronyms

- **NNSA – National Nuclear Security Administration**
- **NRC – Nuclear Regulatory Commission**
- **NSTS – National Source Tracking Systems**
- **RDD – Radiological Dispersal Device**

# Acronyms

- **RED – Radiological Exposure Device**
- **WBL – Web-Based Licensing**