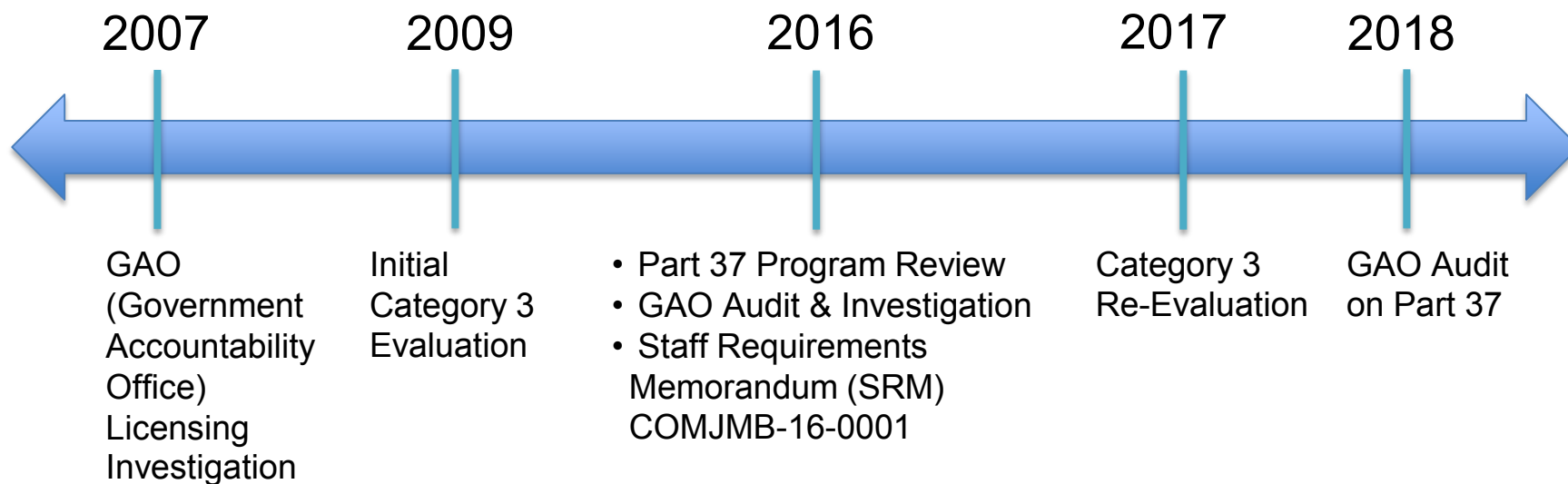


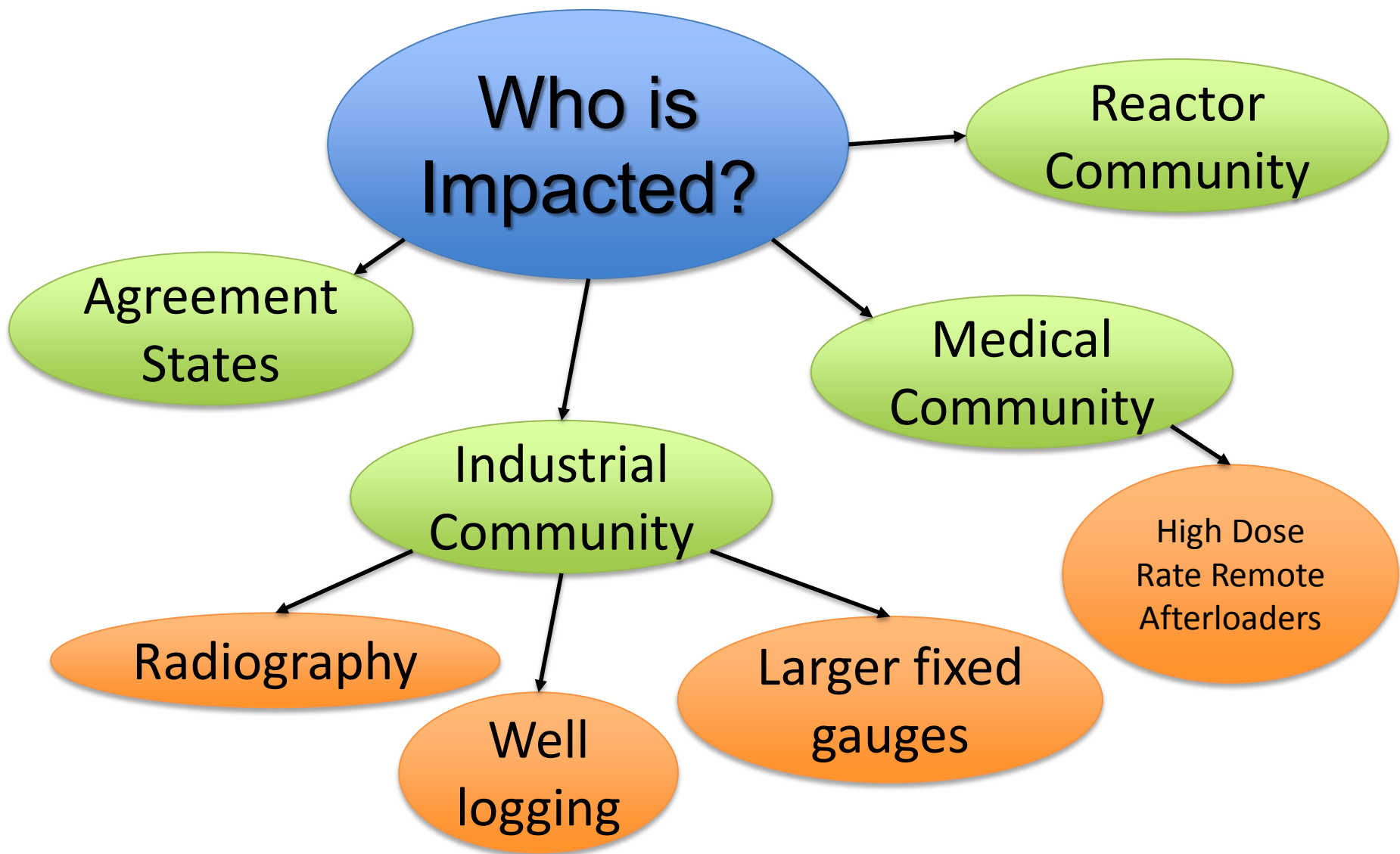
NRC's Category 3 Source Security and Accountability Initiatives

Duncan White
Office of Nuclear Material Safety and Safeguards

American Association of Physicists in Medicine
March 20, 2017

How We Got Here





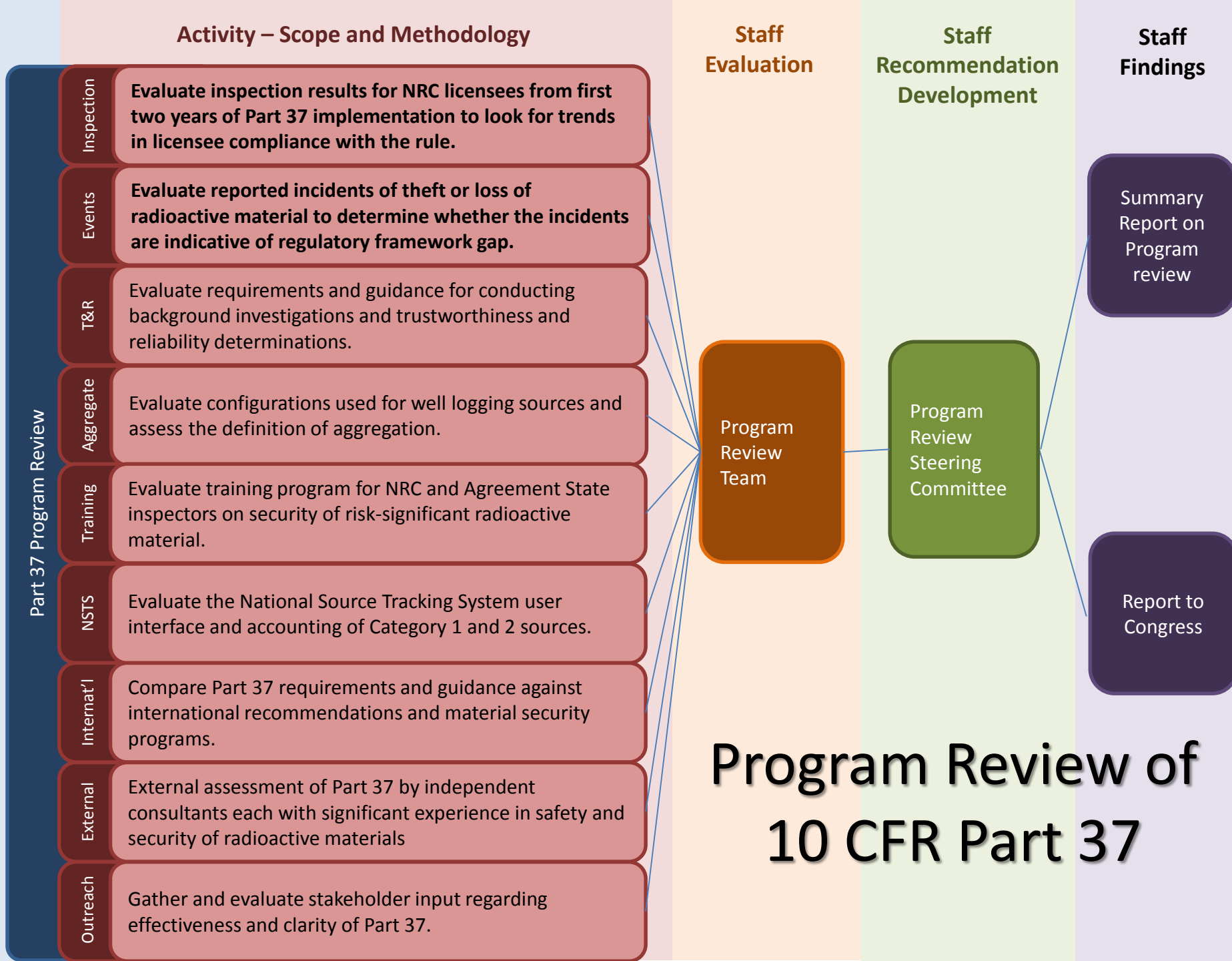
GAO 2007 Licensing Investigation

GAO-07-0138T

- Obtained valid NRC license for Category 4 quantity of material using fake company
- Withdrew Agreement State application due to State's plans for a site visit
- Ordered sufficient devices to obtain Category 3 quantity of material
- Report and testimony July 12, 2007
- Three recommendations by GAO
 - 1) Improve guidance for screening new applicants
 - 2) Conduct periodic oversight of license reviewers
 - 3) Prevent the counterfeiting of NRC licenses
- NRC considers all the recommendations closed

Initial Category 3 Evaluation

- **January 2009:** Licensees begin reporting Category 1 and 2 sources to the National Source Tracking System (NSTS)
- **June 2009:**
 - Staff requested Commission approval to publish a final rule to amend 10 CFR Parts 20 and 32 to expand reporting to the NSTS to include Category 3 sources; this request was not approved
 - **Rationale for Commission's Decision:** further expansion of NSTS should be based upon a vulnerability assessment, lacked a risk-informed foundation, lack of operating experience



Program Review of 10 CFR Part 37

Evaluate inspection results for NRC licensees from first two years of Part 37 implementation to look for trends in licensee compliance with the rule. [mandated]

NRC Enforcement Policy

Severity level assigned to violations considering:

- *Actual safety/security consequences,*
- *Potential safety/security consequences,*
- *Potential for impacting NRC ability to perform regulatory function, and*
- *Any willful aspects*

Severity Level reflects different degrees of significance:

- *Severity Levels I, II, III, and IV and minor violations (SL I highest significance)*

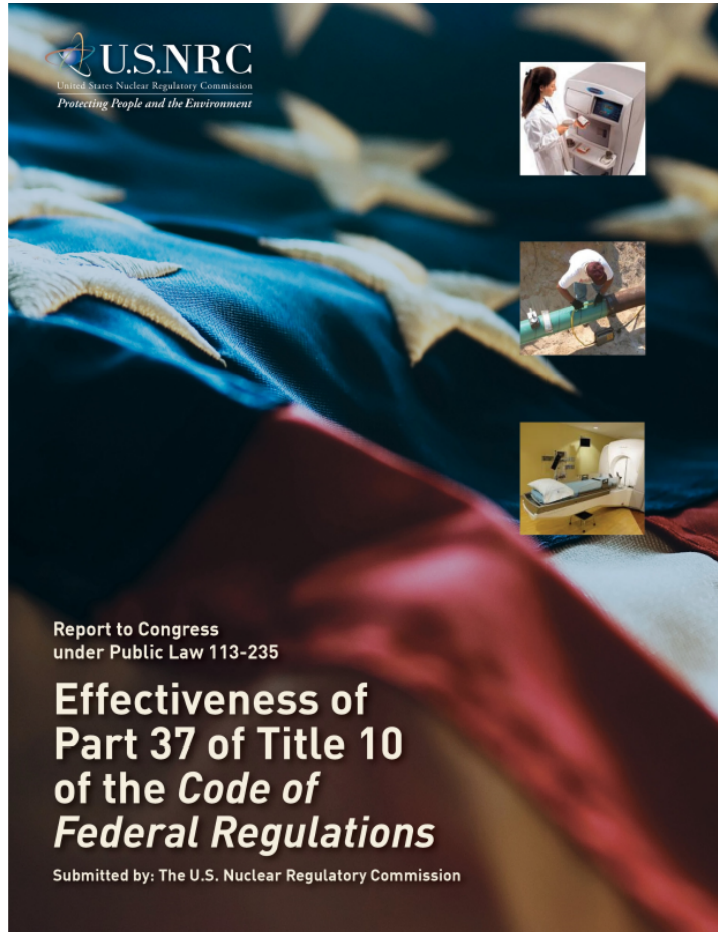
- 255 inspections, some licensees >1
- No SL I or SL II violations
 - Indicates there were no violations with actual safety or security consequences
- 10% of violations were SL III
 - Resulted in, or could have resulted in, moderate safety or security consequences
 - Grouped issues
- 90% of violations were SL IV
 - Indicates no to relatively inappreciable potential safety or security consequences

Report Conclusion

- Report to Congress submitted on December 14, 2016

The analysis [...] demonstrated that Part 37 provides a strong regulatory framework to ensure the security of Category 1 and 2 radioactive materials.

ADAMS [ML16348A230](#)



GAO 2016 Licensing Audit and Investigation

GAO-16-330

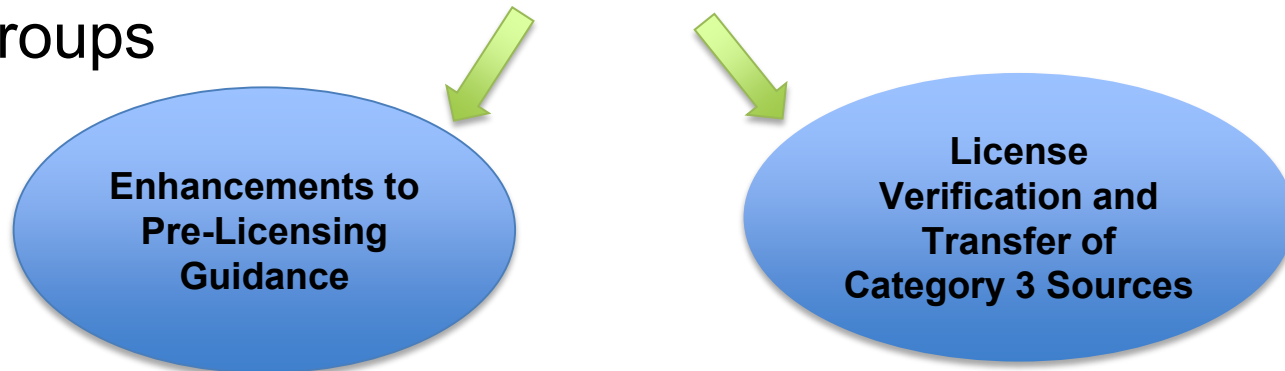
- Obtained valid NRC license for Category 3 quantity of material using fake company
- Rented storefront/warehouse space to demonstrate legitimacy
- Unsuccessful in 2 of 3 attempts
- Obtained one license and used it to order two sources (one with valid license and one after altering license)
- Two sources, in aggregate, totaled a Category 2 quantity of material
- Three recommendations made by GAO
 - 1) Take steps needed to include Category 3 sources in NSTS and add Agreement State Category 3 licenses to WBL as quickly as reasonably possible
 - 2) At least until such time that Category 3 sources can be verified using the License Verification System (LVS), require that transferors of Category 3 quantities confirm the validity of the recipient's license with the appropriate regulatory agency before the transfer until such time such verification can be done using LVS
 - 3) Consider requiring that an onsite security review be conducted for all unknown applicants of Category 3 licenses to verify that the applicant is prepared to implement the required security measures before taking possession of licensed radioactive materials

NRC Response to 2016 GAO Audit and Investigation

- NRC informed of investigation in October 2015
 - GAO recommendations issued July 2016
- Short term actions performed
 - Self-assessments
 - Communication to Agreement States
 - Refresher training

NRC Response to 2016 GAO Audit and Investigation

- Longer term actions
 - Formation of two NRC/Agreement State working groups



- Results of working groups activities and next steps in SECY-17-025

Specific Tasks

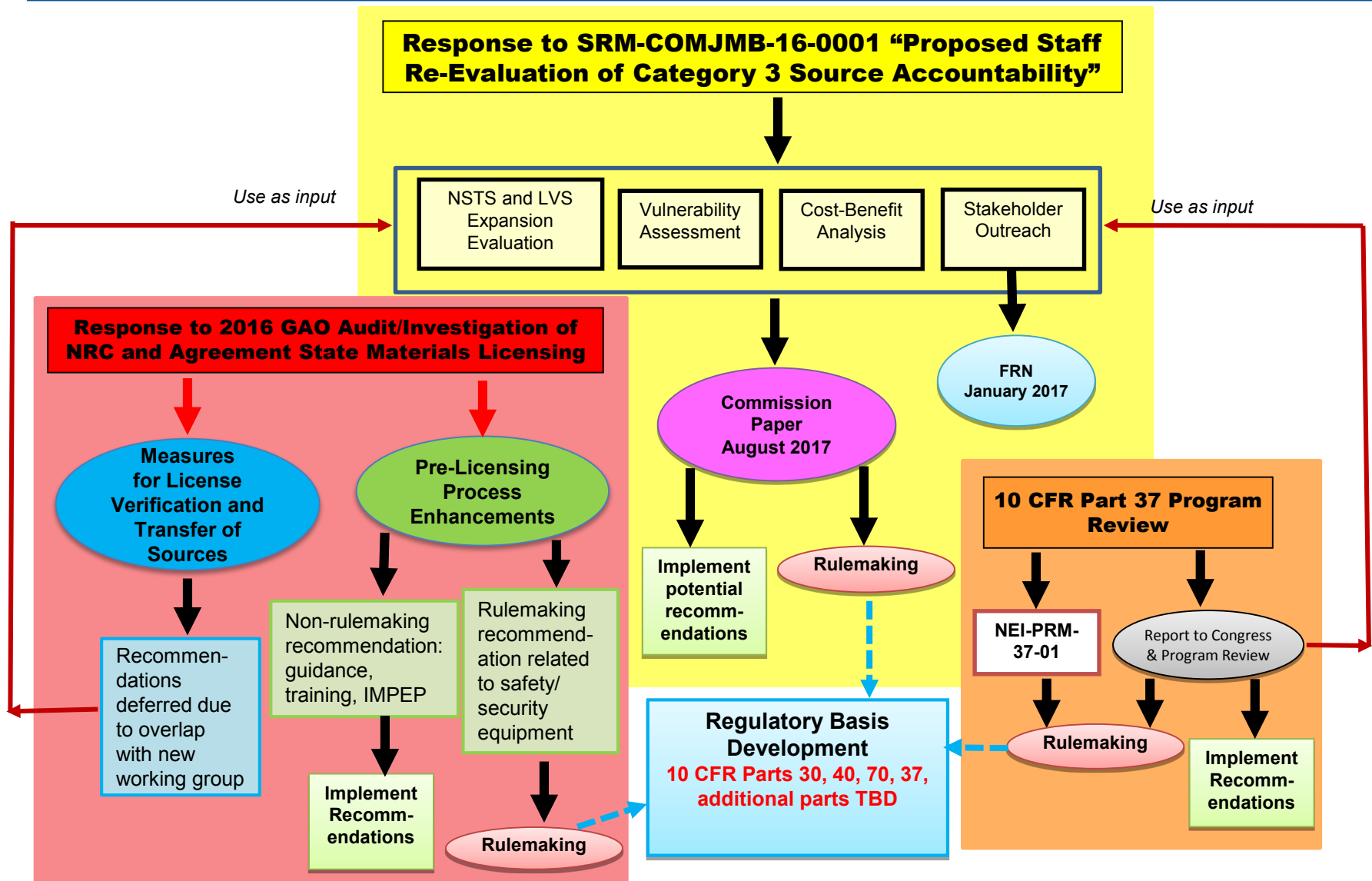
from SRM-COMJMB-16-0001

1. Evaluation of pros and cons of different methods for verification of license's validity
2. Evaluation of pros and cons to include Category 3 sources in NSTS
3. Assessment of any additional options for addressing GAO recommendations on source accountability
4. Vulnerability assessment
5. Regulatory impact analysis of benefits and costs of any recommended changes
6. Discussion on potential actions that do not require regulatory changes and monitoring their implementation through the Integrated Materials Performance Evaluation Program (IMPEP)
7. Assessment of the risk of aggregation of Category 3 sources into Category 2 quantities
8. Collaboration with all affected stakeholders
9. Any other factors to help inform Commission's decision

Category 3 Source Security and Accountability Working Group

- NRC/Agreement State working group
- Four Principal Activities
 1. Expand on analysis and recommendations developed by License Verification and Transfer of Category 3 Sources Working Group (Tasks 1, 2, 3, 6, 7 and 9)
 2. Perform a vulnerability assessment (Task 4)
 3. Perform a regulatory impact/cost benefit analysis (Task 5)
 4. Solicit feedback from affected communities (Task 8)

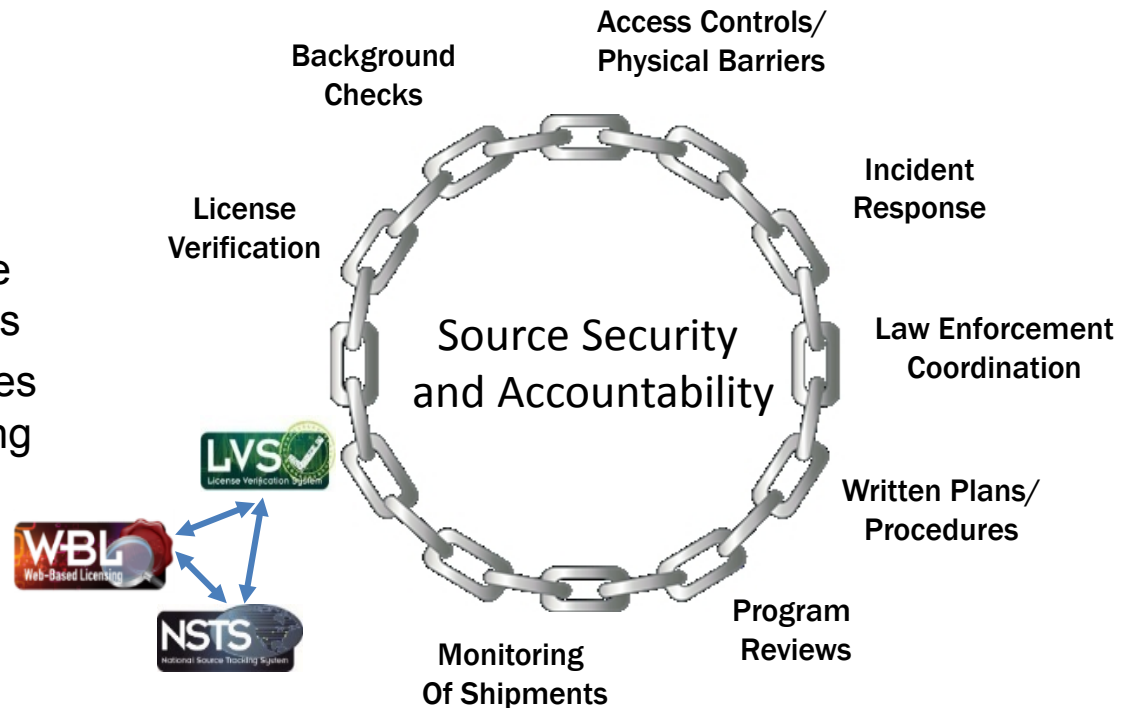
Strategy Diagram of Interrelated Category 3 Source Security and Accountability Activities



Enhancements under Consideration

Examples:

- Verification of Category 3 licenses through the License Verification System or the regulatory authority as is done with Category 1 and 2 licenses
- Inclusion of Category 3 sources in the National Source Tracking System as is done with Category 1 and 2 sources
- Expanding physical security requirements to include Category 3 quantities of radioactive material along with Category 1 and 2 quantities of radioactive material



Outreach

- *Federal Register* notice issued, which included specific questions for stakeholders to consider (82 FR 2399)
- Public meetings/webinars to facilitate feedback
 - 4 public meetings
 - 2 webinars
- Presentations to industry groups and professional organizations
- Comment period closed March 10, 2017

Next Steps

- Consolidate stakeholder comments and input
- Identify potential enhancements for consideration
- Complete vulnerability assessment
- Perform regulatory impact and cost benefit analysis
- Determine which recommendations will enhance safety and security

Commission Paper due August 2017

Additional Information on Category 3 website:

<https://www.nrc.gov/security/byproduct/category-3-source-security-accountability-reevaluation.html>

Questions?

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