

# **NRC's Re-Evaluation of Category 3 Source Security and Accountability**

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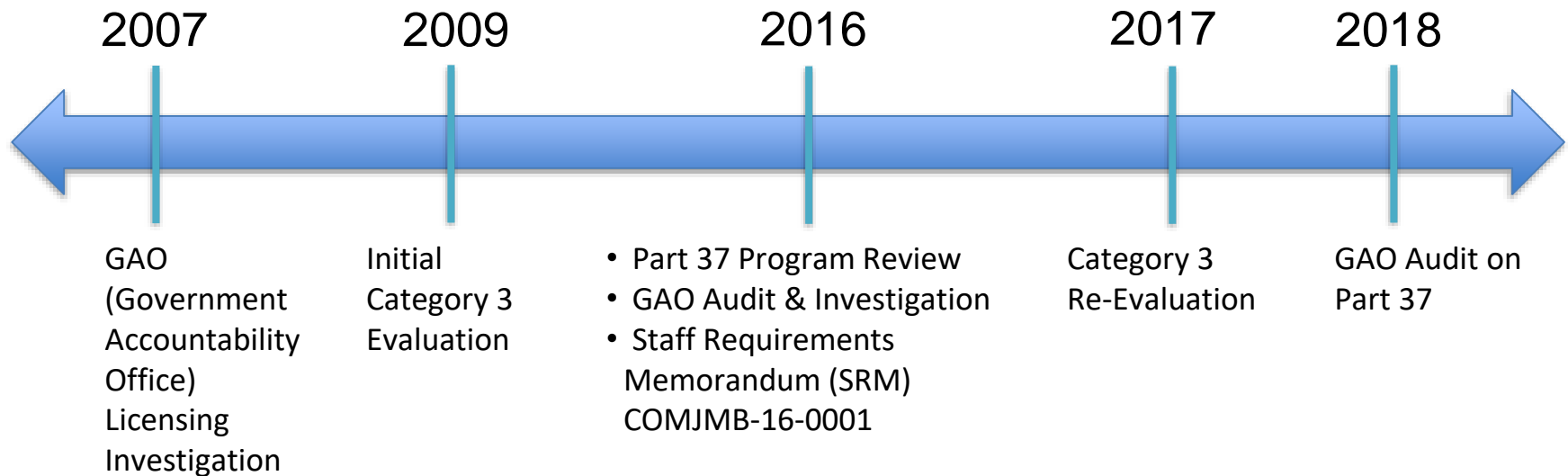
**Division of Material Safety, State, Tribal and Rulemaking Programs  
Office of Nuclear Material Safety and Safeguards**

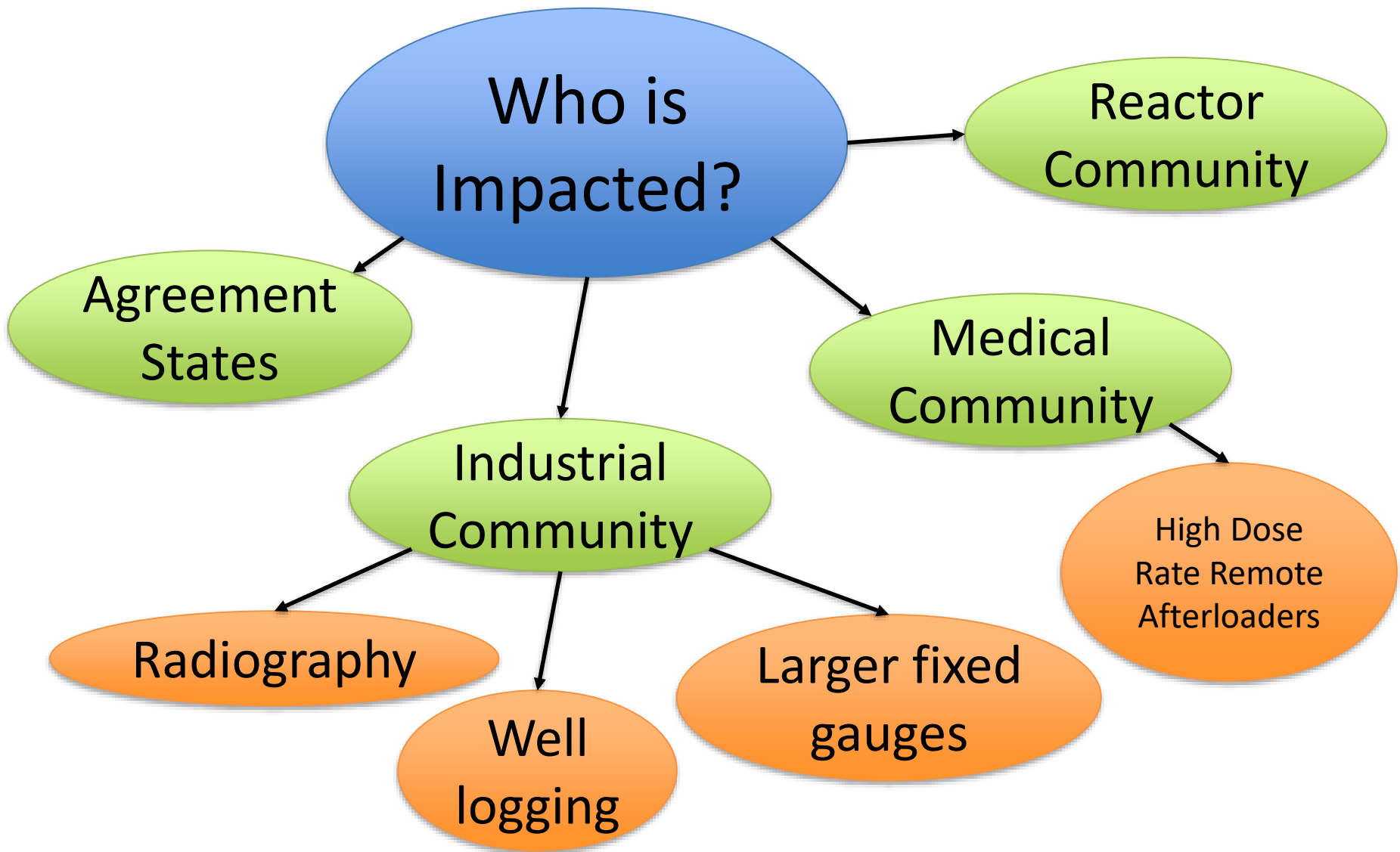
**May 17, 2017**

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# How We Got Here





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# 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

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# 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

## Activity – Scope and Methodology

## Staff Evaluation

## Staff Recommendation Development

## Staff Findings

Part 37 Program Review

Inspection

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

Events

Evaluate reported incidents of theft or loss of radioactive material to determine whether the incidents are indicative of regulatory framework gap.

T&R

Evaluate requirements and guidance for conducting background investigations and trustworthiness and reliability determinations.

Aggregate

Evaluate configurations used for well logging sources and assess the definition of aggregation.

Training

Evaluate training program for NRC and Agreement State inspectors on security of risk-significant radioactive material.

NSTS

Evaluate the National Source Tracking System user interface and accounting of Category 1 and 2 sources.

Internat'l

Compare Part 37 requirements and guidance against international recommendations and material security programs.

External

External assessment of Part 37 by independent consultants each with significant experience in safety and security of radioactive materials

Outreach

Gather and evaluate stakeholder input regarding effectiveness and clarity of Part 37.

Program Review Team

Program Review Steering Committee

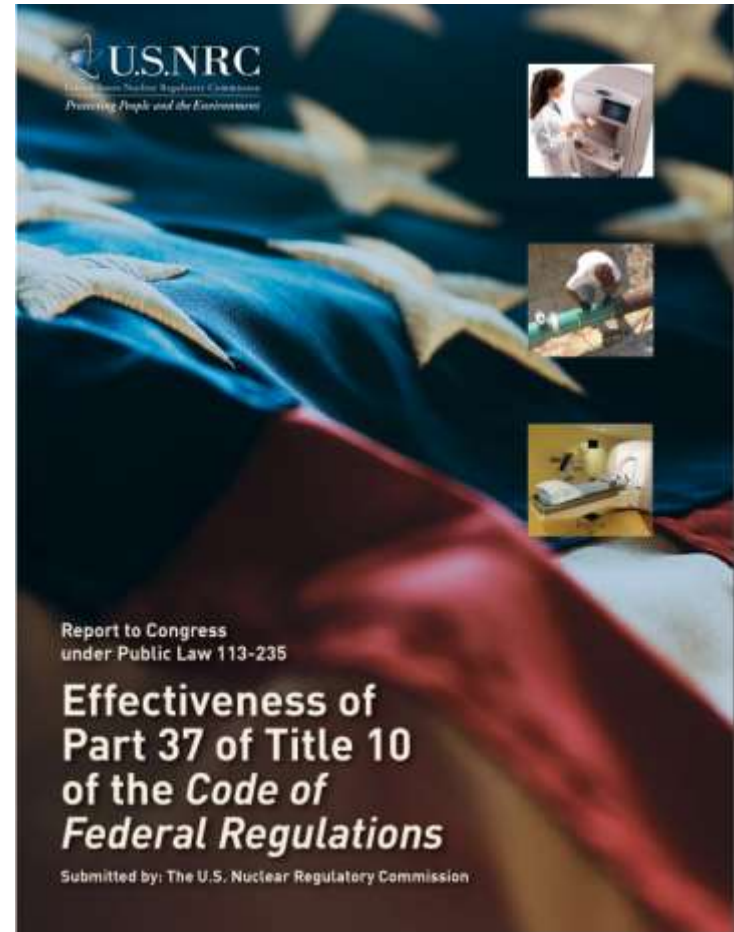
Summary Report on Program review

Report to Congress

# Program Review of 10 CFR Part 37

# Part 37 Program Review

- Review found Part 37 requirements to be effective in ensuring security of risk significant radioactive material.
  - Report to Congress submitted on December 14, 2016 (ADAMS Accession No. ML16347A398)
  - Comprehensive staff review conducted, supplemented by external assessment by independent consultants



# GAO 2016 Licensing Audit and Investigation

## GAO-16-330

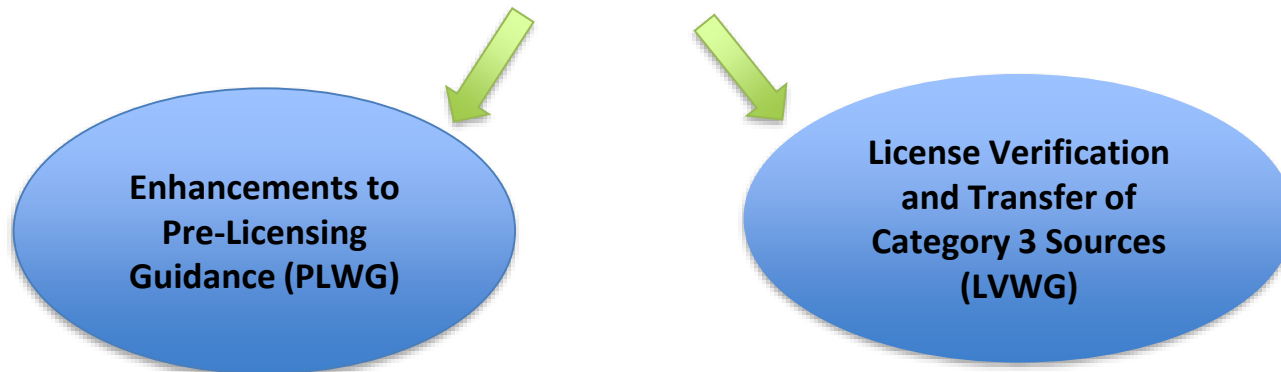
- Obtained valid Agreement State license for Category 3 quantity of material using fake company
- Rented storefront/warehouse space to demonstrate legitimacy
- Unsuccessful in 2 of 3 attempts
- Obtained one license and used it to order two sources (one with valid license and one after altering license)
- 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



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# NRC Response to 2016 GAO Audit

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



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

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# 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

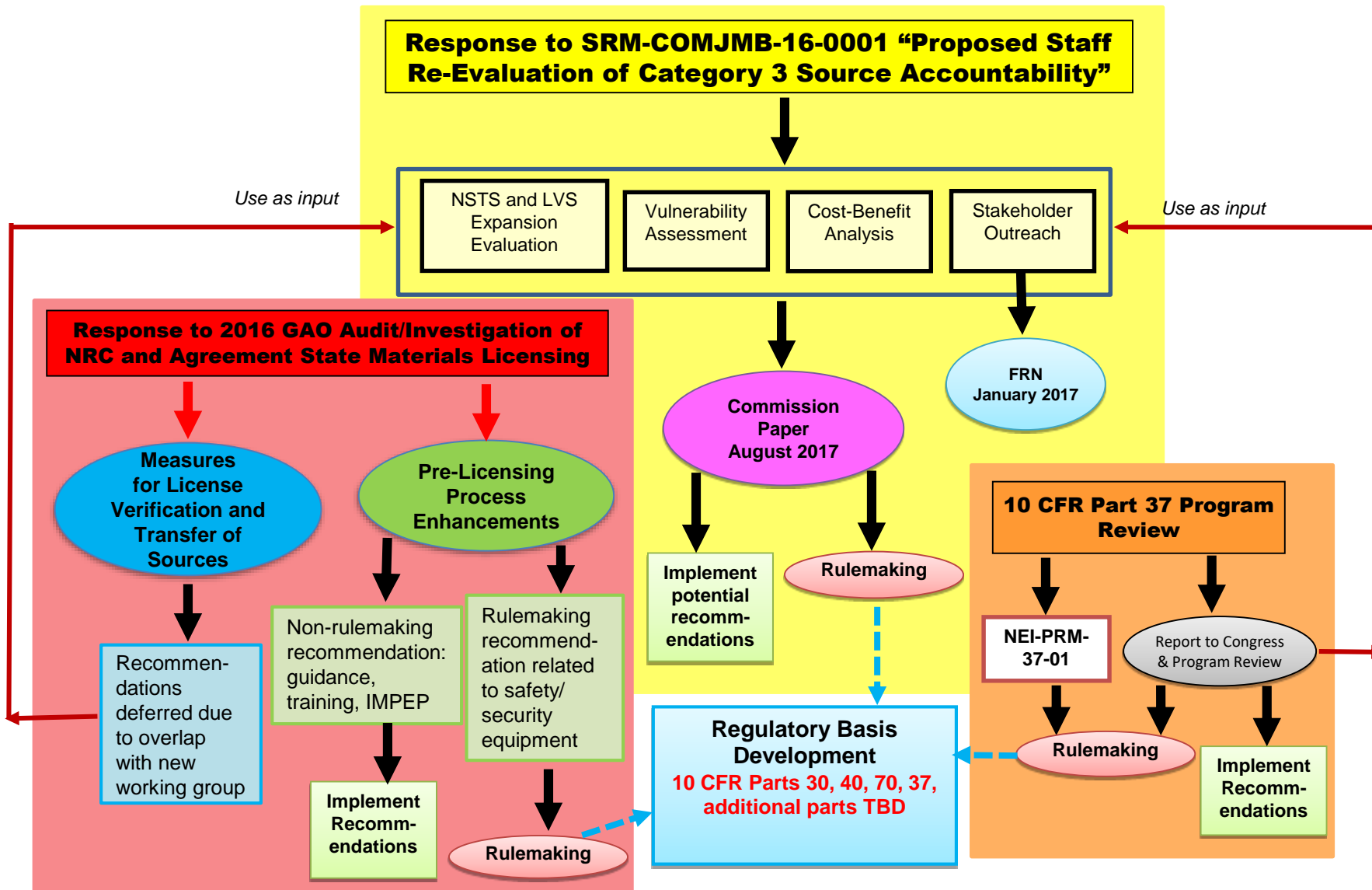
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# SECY-17-0025

## Update on Source Security and Accountability Activities

- GAO Materials Licensing Audit (GAO-16-330)
  - Pre-Licensing Working Group – Implement Non-Rulemaking Recommendations
  - License Verification Working Group – Merged into Category 3 initiatives
- Category 3 Source Security and Accountability Initiatives
- Integration of Rulemaking Activities
  - PLWG rulemaking recommendation on new unknown applicants
  - Part 37 program review rulemaking recommendations and PRM-37-1
  - Category 3 initiatives rulemaking recommendations
  - Financial Assurance requirements for Category 1 and 2 source (SECY-16-0115)

# Strategy Diagram of Interrelated Category 3 Source Security and Accountability



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# 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)

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# Vulnerabilities














1. Ability to obtain a valid license using a fictitious company (pre-licensing guidance)
2. Ability to alter a valid license to obtain more material than authorized, falsify a license to obtain radioactive materials illicitly, and counterfeit a license (license verification)
3. Ability to accumulate/aggregate Category 3 sources to a Category 2 quantity requiring enhanced security (NSTS)
4. Limited verification, no pre-licensing, or no routine oversight of Category 3 sources contained within generally licensed devices (GLs)

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# 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
- Published articles in newsletters
- Comment period closed March 10, 2017

# Feedback Summary

	Limiting license verification for Cat 3 to LVS/regulator	Tracking of Cat 3 sources in NSTS	Enhanced Cat 3 Physical Security	Prohibiting Cat 3 GLs
OAS/ Agreement States				
NGOs				
DOE/NNSA	No comment		No comment	No comment
Licensees				



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# Current Activities and Next Steps

- Consolidate stakeholder comments and input
- Complete vulnerability assessment
- Complete regulatory impact and cost benefit analysis
- Determine which options to recommend to enhance safety and security
- Started Commission Paper

Commission Paper due August 18, 2017

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## Additional Information on Category 3 website:

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

### Questions?

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