

# Discussion of GAO Report on NRC's Materials Licensing Program

---

***NUCLEAR SECURITY: NRC Has Enhanced the  
Controls of Dangerous Radioactive Materials, but  
Vulnerabilities Remain (GAO-16-330)***

**Ned Woodward, Assistant Director**

US Government Accountability Office

[woodwarde@gao.gov](mailto:woodwarde@gao.gov)

[www.gao.gov](http://www.gao.gov)

March 6, 2017

## Background and Context

---

- Prior GAO work on NRC materials licensing in 2003, 2007 and 2008
  - 2003 (GAO-03-804)
    - Recommended that NRC modify its licensing process so rad materials cannot be purchased until NRC verifies their intended use
  - 2007 (GAO-07-1038T)
    - GAO conducted a covert test where we set up 2 fake business and obtained a real NRC license for a category 4 quantity of an isotope of concern
    - GAO then altered the license in order to obtain commitments to purchase, in aggregate, a category 3 quantity of this material

## Background and Context

---

- Prior GAO work on NRC materials licensing in 2003, 2007 and 2008
  - 2008 (GAO-08-598)
    - Notes that since 2003, NRC has made improvements to managing materials licensing but that more needs to be done.
    - Recommends that NRC take the steps needed to ensure that radioactive materials can only be purchased by those with a legitimate reason to possess them,

## 2016 Report's Objectives

---

- To review and assess the steps NRC and agreement states have taken to strengthen their licensing processes, the GAO's report
  - (1) examines what steps NRC and agreement states have taken since 2007 to ensure that radioactive materials licenses are granted only to legitimate organizations, and licensees can obtain materials only in quantities allowed by their licenses, and
  - (2) presents the results of GAO's covert vulnerability testing designed to test the effectiveness of these controls.

## NRC Actions Since 2007

---

NRC took steps to strengthen its licensing program since 2007.

- Requires pre-licensing site visits for all unknown applicants
  - The purpose of this site visit is to meet face-to-face with the applicant to determine whether there is a basis for confidence that the radioactive materials will be used as represented.
- Suspended “the presumption of good faith.”
- Updated other guidance and checklists
- Strengthened the Integrated Materials Performance Evaluation Program (IMPEP)
- Deployed tracking, licensing, and verification systems to better control category 1 and 2 quantities of material
  - NSTS, WBL, LVS

## NRC Actions Since 2007

---

NRC chose not to require tracking or agency verification of licenses for category 3 quantities

- Category 3 quantities are not in NSTS
- Most agreement states do not have category 3 licenses in WBL
- Vendors are not required to verify the legitimacy of a category 3 license with NRC or agreement states.

## Results of GAO's Covert Testing

---

- GAO investigators, using a fictitious business, applied for a radioactive materials license in 3 states
  - 1 NRC regulated state
  - 2 agreement states
- GAO investigators rented vacant space in each state and made no improvements to the vacant space
- For the site visits, one undercover GAO investigator met with the regulator to discuss the license application

## Results of GAO's Covert Testing

---

- In 2 cases, GAO's fictitious businesses were denied a license
  - Site did not appear properly developed
  - No evidence of proper security and safety equipment
    - regulators stated that they wanted to “see everything that is in place right before you go into business.”
  - We had difficulties responding to specific questions because of the fictitious nature of our business
  - References and work history could not be verified
- In these two cases, the extensive scrutiny during the prelicensing site visit was an important factor in the regulatory bodies not granting licenses to our fictitious companies.



## Results of GAO's Covert Testing

---

- In 1 case, GAO's fictitious business received a license.
  - Regulatory official asked several questions to which our investigator provided very general answers—repeatedly assuring the regulator that our fictitious business took safety and security issues very seriously
  - The GAO investigator was handed the license at the end of the visit.
  - Overall, much less scrutiny of our business, history, and plan than provided by the other two cases.

## Results of GAO's Covert Testing

---

- Once we had our license, we obtained a commitment from a vendor to sell us a category 3 quantity of a radioactive material considered attractive to terrorists for use in a dirty bomb (RDD)
- We then altered the license and secured a commitment from a second vendor to sell us the same quantity of the same material
- Taken together, these two quantities would equal a category 2 quantity of material.

## Results of GAO's Covert Testing

---

- GAO staff then immediately alerted NRC of our findings
- NRC and agreement states took corrective actions
  - Root cause analysis
  - Additional training
  - Additional emphasis of guidance
  - Formed two working groups evaluating enhancements to:
    - current prelicensing guidance overall, and
    - license verification and transfer requirements

## 2016 Report Recommendations

---

- Take the steps needed to include category 3 sources in the NSTS and add agreement state category 3 licenses to the WBL.
- At least until category 3 licenses can be verified using the LVS, require that transferors of category 3 quantities of materials confirm the validity of a purchaser's license with the appropriate regulatory authority before transferring any category 3 quantities of materials.
- As part of the ongoing efforts of NRC working groups developing enhancements to the prelicensing requirements for category 3 licenses, consider requiring that an on-site security review be conducted for all unknown applicants of category 3 licenses to verify that applicants are prepared to implement the required security measures before taking possession of radioactive materials.

## NRC Actions Since July 2016

---

- July: Commissioner Baran suggests NRC conduct a review to consider adding category 3 to NSTS
- October: NRC Commissioners direct NRC staff to conduct an analysis of, among other things:
  - Adding category 3 to NSTS
  - Requiring transferors to verify the legitimacy of licenses
  - Consider enhancements to guidance, training, and oversight/monitoring
  - Cost/benefit analysis of making changes
  - Analysis is due in August 2017

# Discussion of GAO Report on NRC's Materials Licensing Program

---

## *Questions?*

**Ned Woodward, Assistant Director**

US Government Accountability Office

[woodwarde@gao.gov](mailto:woodwarde@gao.gov)

[www.gao.gov](http://www.gao.gov)