

**NOTATION VOTE**

**RESPONSE SHEET**

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Baran

SUBJECT: SECY-17-0083: RE-EVALUATION OF CATEGORY 3  
SOURCE SECURITY AND ACCOUNTABILITY IN  
RESPONSE TO SRM-COMJMB-16-0001

Approved   X   Disapproved   X   Abstain        Not Participating       

COMMENTS: Below        Attached   X   None       

Entered in "STARS"

Yes   X  

No       

  
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2/16/18  
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## **Commissioner Baran's Comments on SECY-17-0083, "Re-evaluation of Category 3 Source Security and Accountability in Response to SRM-COMJMB-16-0001"**

In July 2016, the Government Accountability Office (GAO) issued a report examining the effectiveness of NRC's radioactive source tracking regime. GAO's covert testing identified a regulatory gap. The failure of one Agreement State to conduct a proper pre-licensing site visit can be addressed through improved training and guidance. But the ability of GAO investigators to alter the paper license issued by the Agreement State in order to improperly obtain the Category 3 source from more than one vendor reveals a weakness in the underlying regulatory requirements. GAO's fictitious company was able to get two vendors to agree to provide a Category 3 source even though the license only entitled the fake company to one Category 3 source. GAO was successful because "NRC does not specifically require that the validity of Category 3 licenses be verified by the seller with NRC or the Agreement States—creating risks that licenses could be counterfeited or that licensees could obtain radioactive materials in quantities greater than what is allowed by their licenses."<sup>1</sup> As a result, GAO found that "NRC and Agreement States do not have assurance that their systems would prevent bad actors from altering licenses or fraudulently reporting the details of their licenses to transferors, accumulating dangerous materials by aggregation to Category 2 or larger quantities on the basis of those fraudulent licenses, and thereby endangering public health and safety."<sup>2</sup>

In light of GAO's findings, I proposed that the NRC staff take a fresh look at the question of whether and how to track Category 3 sources. My Commission colleagues agreed, and the NRC staff has provided its recommendations. These recommendations were informed by the work of two NRC-Agreement State working groups and one subsequent NRC staff working group. The staff organized its evaluation and recommendations around four overarching concerns: (1) "The ability to obtain a valid license using a fictitious company or by providing false information;" (2) "The ability to alter a valid license to obtain more or different radioactive material than authorized or to counterfeit a license to obtain radioactive materials illicitly;" (3) "The ability to accumulate or aggregate Category 3 sources to a Category 2 quantity of radioactive material requiring enhanced security;" and (4) "The limited accountability, lack of pre-licensing evaluations, and lack of routine oversight of Category 3 sources contained within generally licensed devices."

### **Obtaining a Valid License Using a Fictitious Company or False Information**

In order to prevent a fictitious company from obtaining a valid license to possess radioactive material, the NRC staff recommends a rulemaking to require an unknown applicant's safety and security equipment to be in place before the granting of a license. This would "eliminate the acceptance of written or oral assurances regarding facility completeness and required security and safety equipment."<sup>3</sup> According to the staff, "[a]n applicant's willingness and up-front investment to acquire the necessary equipment and construct the necessary facilities to implement a safe and secure radiation protection program would provide increased confidence that the applicant will use the radioactive materials as intended."<sup>4</sup>

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<sup>1</sup> Government Accountability Office, "Nuclear Security, NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain" (GAO-16-330) (July 2016) at highlights page.

<sup>2</sup> *Id.* at 20.

<sup>3</sup> SECY-17-0083 at 6.

<sup>4</sup> *Id.*



I agree with the staff that establishing this requirement would be a common sense approach to increase confidence that the applicant is a real company that will use radioactive materials for legitimate purposes. In fact, most Agreement States already have this requirement in place.<sup>5</sup> And because legitimate applicants would need to purchase the equipment anyway once they obtain a license, the overall costs to the applicant should not increase. Therefore, I approve the staff's recommendation to proceed with this rulemaking.

### **Altering or Counterfeiting a License to Illegally Obtain Radioactive Material & Aggregating Category 3 Sources to Category 2 Levels**

In response to the core finding of the GAO report that licenses can be altered or counterfeited to allow bad actors to illegally obtain radioactive material, the staff proposes to make two minor modifications to NRC's requirements. The staff recommends amending the regulations to (1) require an emergency oral certification of a license to be later confirmed through one of the other acceptable means of confirmation, such as providing a copy of the license; and (2) remove an unused method of license verification that involves reporting services, which have not materialized in the years since the regulation was written. I agree that both of these revisions are reasonable and approve addressing both in the rulemaking.

However, I disagree that these minor changes alone are sufficient to address the regulatory gap highlighted by the GAO report. Indeed, the staff's analysis of the pros and cons of taking no action to require license verification clearly reveals that the status quo is not adequately protective of public health and safety. Under the "cons" of taking no additional action on license verification, the staff's paper lists: "No assurance of official authorizations to obtain specific quantities of licensed material" and "No assurance of the authenticity of a license."<sup>6</sup> In other words, the no-action option does not solve the problem.

The NRC staff argues that requiring license verification is "not justified in the absence of current intelligence information and operating experience to demonstrate a need for a change to existing license verification requirements."<sup>7</sup> But that is not how the agency approaches other threats and vulnerabilities. We did not wait for an armed attack on a nuclear power plant to establish physical security requirements or for intelligence indicating an imminent cyber-attack before requiring plants to take steps to protect their cybersecurity. Likewise, we should not wait for an adversary to exploit the failure to verify the validity of Category 3 radioactive materials licenses before filling this regulatory gap. As the staff noted in a prior policy paper, "[d]evices with Category 3 sources could be easily aggregated to Category 2 levels because they contain sources with activity levels that range from just below the Category 2 threshold to 1/10 of the Category 2 threshold (i.e., it would take only a few devices in the Category 3 range to aggregate to Category 2)."<sup>8</sup> Given the Commission's past determination that Category 2 quantities of radioactive material warrant the suite of regulatory requirements that NRC has applied to them, including license verification, tracking in the National Source Tracking System, and physical security, it is appropriate to take the basic step of ensuring the validity of licenses to obtain Category 3 sources that can "be easily aggregated."

NRC's existing License Verification System allows radioactive materials licensees, including the manufacturers and distributors that sell radioactive materials to other licensees, to

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<sup>5</sup> SECY-17-0083, Enclosure 2 at 2.

<sup>6</sup> SECY-17-0083, Enclosure 2 at 4.

<sup>7</sup> SECY-17-0083 at 9.

<sup>8</sup> SECY-10-105 at 4.

confirm that a license is valid and that a buyer is authorized to acquire the quantities and types of radioactive materials being requested. Use of the system is currently required for Category 1 and Category 2 quantities of radioactive materials.

I support the staff's Option 2 to amend NRC's regulations to require verification of licenses authorizing possession of Category 3 quantities of radioactive material through the License Verification System or the appropriate regulatory authority (NRC or the Agreement State). Unlike the staff's recommended approach, this option would meaningfully address the regulatory gap identified by GAO. It would "prevent unauthorized entities from using, or attempting to use, counterfeit or altered licenses in an attempt to obtain licensed materials."<sup>9</sup> This approach was recommended by the staff's Category 3 Source Security and Accountability Working Group, which included some of the agency's foremost experts on source accountability.<sup>10</sup> According to the staff's Regulatory Impact Analysis, this license verification requirement would cost each licensee an average of \$201 to initially implement and then just \$14 annually.<sup>11</sup> Although there are additional costs for NRC and the Agreement States to verify the validity of Category 3 licenses, I believe these costs are justified by the resulting significant improvement in radioactive source accountability. Moreover, these regulatory costs can be reduced as NRC and Agreement States refine their capabilities to efficiently process seller requests for manual license verification. As part of the rulemaking, the staff should evaluate and seek stakeholder comment on whether there is any subset of routine transactions involving established buyers to which the enhanced license verification requirement should not apply.

If NRC updates its regulations to require license verification for Category 3 sources, I agree with the staff that it is not necessary to require licensees to report transactions involving Category 3 sources to the National Source Tracking System at this time. License verification is the more targeted solution to closing the regulatory gap highlighted by GAO because it occurs prior to the transfer of a source and can proactively prevent an illegal transfer. On the other hand, "NSTS is not a real-time tracking system" since "[t]ransactions are required to be reported to NSTS by close of business the day after which they occur."<sup>12</sup>

### **Generally Licensed Devices**

Generally licensed devices, such as self-luminous exit signs, do not require specific possession licenses and "are designed to be operated by an individual who has little to no radiation protection knowledge."<sup>13</sup> "However, the isotope and quantity of radioactive material in a generally licensed device is no different than that contained in a specifically licensed device."<sup>14</sup> As the staff explains, "NRC does not regularly conduct inspections at facilities possessing generally licensed devices to ensure that they are being used and maintained safely or securely."<sup>15</sup> Although there are hundreds of thousands of generally licensed devices nationwide, there are a relatively small number of generally licensed devices containing Category 3 quantities of radioactive material (and even fewer general licensees possessing those devices).

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<sup>9</sup> SECY-17-0083, Enclosure 6 at 7.

<sup>10</sup> SECY-17-0083, Enclosure 6 at 2.

<sup>11</sup> SECY-17-0083, Enclosure 5 at 8.

<sup>12</sup> SECY-17-0083, Enclosure 1 at 1.

<sup>13</sup> SECY-17-0083, Enclosure 2 at 11.

<sup>14</sup> *Id.*

<sup>15</sup> SECY-17-0083, Enclosure 1 at 8.



Concerned about the lack of routine oversight and accountability of generally licensed Category 3 sources, the staff's Category 3 Source Security and Accountability Working Group recommended an inspection program for these sources and a requirement that "manufacturers and distributors notify the regulator prior to initially transferring a Category 3 generally licensed device in order to allow for the performance of a pre-licensing evaluation."<sup>16</sup> The staff's Steering Committee favored going even further to convert all Category 3 general licenses to specific licenses.<sup>17</sup>

The Agreement States expressed these same concerns in their written responses to the staff's *Federal Register* notice questions.<sup>18</sup> Noting that "[g]eneral licensees are usually unaware of the applicable regulations," the Organization of Agreement States told NRC that "Category 3 sources should be specifically licensed." There was broad consensus among the states on the need for change. For example, the Pennsylvania Department of Environmental Protection stated that the "vast majority of these certificate-level GLs need a higher degree of oversight by the regulator" and recommended that all general licenses be converted to specific licenses. The Tennessee Department of Environment and Conservation similarly argued that "the requirements for general license devices are not conducive for a regulatory authority to monitor [the] security of these devices." The Colorado Department of Public Health and Environment explained that it "believes that the general licensing program does not provide for adequate accountability of sources." Alabama, Florida, North Carolina, and Wisconsin all wrote NRC to make similar points. No Agreement State advocated for continuing with the general license program as it is currently structured.

When the NRC's technical experts and our Agreement State partners reach the same conclusion that general licenses for Category 3 sources do not provide for adequate oversight, we need to take action. I therefore support the staff's recommendation to re-evaluate the practice of issuing general licenses for Category 3 sources. As a safety and security regulator, we need to have an open mind about the need for regulatory change in this area.

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<sup>16</sup> SECY-17-0083, Enclosure 6 at 5.

<sup>17</sup> *Id.* at 6.

<sup>18</sup> NRC docket number NRC-2016-0276.