

NRC/Agreement State Working Group  
License Verification and Transfer of Category 3 Sources

CHARTER

PURPOSE

The License Verification and Transfer of Category 3 Sources Working Group has been established as a Management Directive (MD) 5.3 working group to evaluate vulnerabilities identified as a result of the 2015 Government Accountability Office (GAO) investigation and audit into the U.S. Nuclear Regulatory Commission (NRC) and Agreement State materials licensing program. The working group will make recommendations to the NRC management on strategies to mitigate the vulnerabilities based on its evaluation.

BACKGROUND

In October 2015, the NRC staff was notified that GAO had conducted an undercover investigation focused on whether the licensing vulnerabilities identified in the 2007 GAO investigation (see GAO-07-1038T) were addressed by the regulatory framework and other improvements implemented by the NRC and the Agreement States. The 2015 investigation is part of a larger audit of NRC and Agreement State materials licensing activities that began in 2014. The GAO is expected to publish the results of its investigation in 2016.

After the 2007 investigation, the NRC and the Agreement States made a number of important changes to strengthen the licensing and regulatory processes to keep malevolent individuals from obtaining a radioactive material license. The 2015 investigation went beyond the 2007 investigation in its sophistication and planning, such that they obtained a license from an Agreement State. GAO demonstrated that they could have, but did not, acquire an aggregate Category 2 quantity of material. In its first two out of three attempts to obtain a license, GAO was unsuccessful.

The 2015 GAO investigation identified vulnerabilities in the National Materials Program (NMP) pre-licensing process. The NRC and Agreement States all use a similar process to issue licenses to a wide range of persons for the safe and secure use of radioactive materials in the medical, industrial and academic fields. In October 2008, the Materials Program Working Group (MPWG) issued a report (ML082970734) recommending improvements to the existing licensing process. The report included recommendations to revise the pre-licensing guidance, as well as considered the recommendations made by the Independent External Review Panel, which had completed its report in March 2008 (ML080700957). One of the recommendations made by the MPWG included amending existing regulations for the transfer of radioactive materials in Title 10 of the *Code of Federal Regulations* (10 CFR) Parts 30, 40, and 70. The rulemaking change would require licensees transferring radioactive material to contact the regulatory agency to receive verification that a transferee's license authorizes the quantity being requested, and that delivery of the materials will be made to a location of use listed on the transferee's license.

On May 20, 2013, through the publication of 10 CFR Part 37, verification of licenses before transferring radioactive materials became effective for Category 1 and Category 2 NRC licensees. The requirements for license verification for Category 1 and 2 quantities of radioactive materials are listed in 10 CFR 37.71, “Additional requirements for transfer of Category 1 and Category 2 quantities of radioactive material.”

In May 2013, the NRC deployed the License Verification System (LVS). LVS enables authorized licensees to verify certain information about licensees authorized to possess, use, or ship radioactive materials. The system allows licensees to confirm that (1) a license is valid and accurate and (2) a licensee is authorized to acquire quantities and types of radioactive materials being requested. As of March 19, 2016, all NRC and Agreement State Category 1 and Category 2 licensees are subject to the license verification requirements.

Since 2013, the Agreement States have been voluntarily providing their Category 1 and Category 2 licenses to NRC for inclusion in the Web-Based Licensing (WBL) system for license verification purposes.

The License Verification and Transfer of Category 3 Sources Working Group has been established to determine the need for enhancements to existing requirements or guidance for license verification beyond the Category 1 and Category 2 thresholds (see Table 1).

Table 1: Activities corresponding to thresholds of categories.

<b>Radioactive material</b>	<b>Category 1 (TBq)</b>	<b>Category 1 (Ci)</b>	<b>Category 2 (TBq)</b>	<b>Category 2 (Ci)</b>	<b>Category 3 (TBq)</b>	<b>Category 3 (Ci)</b>
Americium-241	60	1,620	0.6	16.2	0.06	1.62
Americium-241/Be	60	1,620	0.6	16.2	0.06	1.62
Californium-252	20	540	0.2	5.4	0.02	0.54
Cobalt-60	30	810	0.3	8.1	0.03	0.81
Curium-244	50	1,350	0.5	13.5	0.05	1.35
Cesium-137	100	2,700	1	27	0.1	2.7
Gadolinium-153	1,000	27,000	10	270	1	27
Iridium-192	80	2,160	0.8	21.6	0.08	2.16
Plutonium-238	60	1,620	0.6	16.2	0.06	1.62
Plutonium-239/Be	60	1,620	0.6	16.2	0.06	1.62
Promethium-147	40,000	1,080,000	400	10,800	40	1,080
Radium-226	40	1,080	0.4	10.8	0.04	1.08
Selenium-75	200	5,400	2	54	0.02	5.4
Strontium-90	1,000	27,000	10	270	1	27
Thulium-170	20,000	540,000	200	5,400	20	540
Ytterbium-169	300	8,100	3	81	0.3	8.1

## WORKING GROUP AND STEERING COMMITTEE MEMBERSHIP

The working group and steering committee will operate as an NRC/Agreement State working group as described in Management Directive 5.3, “*Agreement State Participation in Working Groups*.” The working group and steering committee will be co-chaired by an NRC staff member and a representative from the Organization of Agreement States (OAS). Membership of the steering committee for this working group will be the same as the steering committee for the Enhancements to Pre-Licensing Guidance Working Group.

Organization	Working Group	Steering Committee
Office of Nuclear Material Safety and Safeguards	Ernesto Quinones, Co-chair Angela Randall, Alternate Co-chair	Daniel Collins, Co-chair Pamela Henderson, Alternate Co-Chair
Office of Nuclear Security and Incident Response	Gary Purdy	Melanie Galloway
OAS	Stephen James, Co-chair	Alan Jacobson, Co-Chair
Office of the General Council	Esther Houseman	Carrie Safford
Regional Offices	Randolph Ragland, Region I	
Agreement State	Robert Custodio, CA	

Other Material Safety, State, Tribal, and Rulemaking (MSTR), Regional and Agreement State staff may serve as resources to the Working Group at the request of the Co-Chairs and with the support of their management.

Administrative support for the working group will be provided by MSTR.

## OBJECTIVES

The working group will focus on longer term actions required to evaluate the need for improvements to the license verification and transfer of Category 3 quantities of radioactive materials.

1. Considering results from the Enhancement to the Pre-Licensing Guidance working group, the 2008 Materials Program Working Group report, and current practices for license verification and transfer of Category 1 and Category 2 quantities of radioactive materials as starting points, the working group should identify enhancement and implementation strategies to improve the process and requirements for license verification and transfer of Category 3 sources. At a minimum, the working group should consider the following strategies identified and provide recommendations:
  - a. Enhancements
    - i. Consider requiring all category 3 licensees to verify licenses through the LVS or the regulatory authority before transferring category 3 quantities of radioactive materials;
    - ii. If license verification requirements should not be applicable to all category 3 licensees, consider requiring only manufacturers and distributors to verify licenses through the regulatory authority before transferring materials;
    - iii. Consider including all category 3 Agreement State licenses in the WBL to facilitate the electronic verification of licenses through the LVS;

- iv. Evaluate whether tracking of category 3 sources in the NSTS would prevent licensees authorized to possess category 3 sources from accumulating category 2 quantities.
  - b. Implementation
    - i. Interim measures: Use of license conditions and/or orders;
    - ii. Rulemaking to modify 30.41, 40.51 and 70.42 to require license verification through the regulatory authority;
    - iii. Agreement State compatibility and enforcement requirements associated with rulemaking;
    - iv. Guidance development/outreach.
2. Review the GAO audit report and recommendations (GAO-16-330). The working group shall recommend any strategies to mitigate the vulnerabilities based on the results of the GAO investigation and audit.
3. Provide the MSTR Division Director with a report summarizing the working group's activities and recommendations.

## SCHEDULE

The Co-Chairs will determine the frequency and timing of working group meetings. The working group held its first meeting on February 24, 2016, and will deliver their draft report and recommendations to the MSTR Division Director by July 1, 2016.

## LEVEL OF EFFORT EXPECTED OF PARTICIPANTS

Given the importance of this review to the NMP, the working group participants should anticipate spending a substantive amount of their time, up to 50 percent, on working group activities.

## MEETINGS

Meetings are pre-decisional and will be closed to the public.

Working group members may delegate an alternative representative for a specific meeting. The working group may also invite individual(s) to a meeting to participate as a resource to assist the working group with a particular issue. However, at least one of the named Co-Chairs must be present during any meetings.

Available technology will be used to facilitate interaction with the working group members, (e.g., conference calls, GoToMeeting and electronic mail). Face-to-face meetings, if necessary, will generally be held in the Washington, D.C., area unless alternate locations are agreed upon by working group members. If travel is necessary, travel and per diem expenses for Agreement

State members of the working group will be covered by MSTR. Regions are responsible for the travel expenses of their staff.

## APPROVED

**Original signed by Scott Moore on 6/2/16**

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Scott W. Moore, Nuclear Regulatory Commission

Date

**Original signed by Sherrie Flaherty on 6/8/16**

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Sherrie Flaherty, Chair, Organization of Agreement States

Date