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March 6, 2017

Cindy Bladey  
US NRC  
Office of Administration  
Mail Stop: OWFN-12-H08  
Washington, DC 20555-0001

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re: Docket NRC-2016-0276, Category 3 Source Security & Accountability

Good afternoon:

My comments are coming from a background related to the use of gauging devices used in heavy industry, many of which are generally licensed. The GAO audit referenced in the Federal Register Notice addressed obtaining a license, not the diversion of devices from an existing legitimate licensee. There appears to be a problem within the NRC, rather than with a legitimate licensee. The failure of a licensing agency to do what they are supposed to do should not result in burdensome requirements on licensees. In general, there is a lack of awareness of the widespread use of radioactive sources in gauging devices by the general public. It would behoove the NRC and the agreement states to maintain this low level of awareness on the part of the public in order to reduce the potential for diversion of these devices for malevolent purposes. Another general comment is that most gauging devices are not that easy to remove from the gauge frame or their installation, removal will usually cause someone to notice that the gauge is not doing what it is supposed to do, in many cases, an attempt to removal will alert nearby personnel of a potential "safety" hazard, and the installations are typically "controlled" areas in which an "outsider" would be confronted, if only for safety reasons.

In general, there should be minimal economic impact on transferors validating that a transferee is licensed to receive a Category 3 source. This is actually a requirement in Part 30 for specifically licensed sources and should not be that much of a hardship for generally licensed devices.

There also should not be that much of an economic impact for requiring Category 3 sources to be included in the NSTS, provided the NRC finds that this is necessary. As stated in the first paragraph, gauging devices are probably of a low risk of diversion. In the case of generally licensed Category 3 sources, they are currently required to be registered with the NRC or an agreement state under Part 31.5(c)(13)(i), so registering in NSTS should not be much of a problem.

In terms of aggregating Category 3 sources into a quantity qualifying as Category 2, this is already covered under Part 37.

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Radiation Protection Consultants

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### General Questions – License Verification

1. While this may be an easy task for a manufacturer, it is not that easy for a licensee, especially a GL attempting to dispose of a source. The NRC's databases are not very "user friendly." There should be an easier way for Category 3, e.g., receiving a current copy of the broker's license or a declaration that they are licensed to receive the sources. In the case of a transfer to a non-disposal licensee, a copy of new licensee's license and a call to the licensing agency to verify the license authorization should suffice.
2. There may be an increase in security, however, as explained in 1 above, for a licensee, it can be difficult to work through the NRC's database. I cannot see where there would be any increase in safety requiring your proposal versus what I have suggested.
3. Yes. But also include licensed disposal brokers.
4. See 1 above.

### General NSTS Questions

1. The NSTS system is relatively easy to deal with for someone such as a RSO for a specific licensee; however, it can be confusing for a GL, in terms of registering. Does the NRC have any data to show that Category 3 sources would cause real harm if diverted, other than psychological panic if used in a "dirty bomb?" The real hazard is the explosion. In terms of a gauge sealed source capsule, has the NRC tried to blow up a sealed source device? Was the capsule blown apart, releasing the radioactive material, or just ejected out of the housing.
2. No. We are dealing with much smaller and less dangerous sources. Additionally, in many gauge facilities, especially those that are GL, you are dealing with a real lack of radiation safety knowledgeable personnel. If you want to require 20.2207(f), then require the transferor to perform the registration for the GL and even for a small specific licensee with a few Category 3 gauges.
3. If you do decide to require this for Category 2 sources, the transferor should bear the responsibility, especially in the case of a new licensee. An alternative would be to have a representative of the licensing agency work with the licensee to perform the registration. From personal experience, some licensing agencies have been remiss in notifying the NSTS of a new license in a timely manner. If the licensing agencies cannot get their act together, should you really expect more from licensees?
4. No comments.
5. No comments.

### Specific Questions – License Verification

1. The NRC has a poor response time in granting licenses, often 3 months or more. If you add Category 3 sources, how will this affect license verification? You are likely to delay the transfer and use of needed devices, especially if you add the license approval time to

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the license verification time, it could seriously delay the installation of needed gauges. If I go to a licensed gun dealer and buy a gun, it takes minutes to an hour to get verification from the FBI. Perhaps the NRC should learn from the FBI.

2. In terms of Category 3 sources, 4 per year. Typically, 1 per year from a manufacturer, and three per year to a broker for disposal.
3. No. This should also include licensed disposal brokers.
4. See 1 above.

#### **Specific NSTS Questions**

1. No it doesn't. I got a client credentialed in one day. However, as indicated in 1 under the specific questions for license verification, is your system capable of handling the number of Category 3 sources? Does the NRC even know how many Category 3 sources are possessed by NRC and agreement state licensees? If it is taking a month to get credentialed for Category 1 and 2, it is likely the system will be swamped with Category 3.
2. No problems.

#### **Other Questions**

1. No. Has the NRC been able to justify that there is a real hazard from diverted Category 3 sources?
2. Yes. This should have been done years ago. However, the limit should be at Category 2, or at a level well above the activities in commonly used gauging devices. Again, there are a multitude of gauging sources that would meet the Category 3 limits, either singly or aggregated, which have been used safely and without any security incidents over the years. The cost in terms of both time and money to force these GL's to become specific licensees (license costs, personnel costs in terms of license application preparation, survey meter purchases, training, lost time due to inspections, etc.) all come with no real increase in safety or security to the public. Thus, the cost-benefit ratio is astronomical.

I believe the Canadian government ran some tests a few years ago in which sources/devices containing source were deliberately blown up. If I remember correctly, the extent of the contamination was minimal. Has the NRC ever tried to reproduce these tests, and if not, why not? Instead of further burdening the regulated community without any proof of real hazards, the NRC should show the hazard is real.

It is doubtful the NRC will ever modify its linear non-threshold and ALARA philosophy even though there is increasing scientific thought that they are not in the best interests of society; forcing the wasteful expenditure of scarce resources for a minimal hazard. This should not be another process in which over-reaction, and the resultant wasting of limited financial and personnel resources are expended without showing there is a real problem.

Cindy Bladey, US NRC, Office of Administration  
Mail Stop: OWFN-12-H08, Washington, DC 20555-0001  
Docket NRC-2016-0276, Category 3 Source Security & Accountability

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If you have any questions, please contact me at (610) 756-4153 (voice) or (610) 756-0042 (FAX) or e-mail at [tony@radprotection.com](mailto:tony@radprotection.com).

Thank you for the opportunity to submit these comments.

Sincerely,



A. LaMastra  
Certified Health Physicist