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## INFORMATION NOTICE 2012-01

**TO:** Department of Health Services  
Radioactive Material Licensees

**FROM:** Department of Health Services  
Radioactive Materials Program

**DATE:** September 26, 2012

**SUBJECT:** Information Notice concerning SCATR program

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### PURPOSE:

The Wisconsin Department of Health Services is issuing this information notice to inform licensees with sealed sources that The Source Collection and Threat Reduction (SCATR) Program is reaching out to interested licensees to allow for the disposal of certain Class A sealed sources at the EnergySolutions' low-level radioactive waste disposal facility in Clive, Utah. The SCATR Program is administered by the Conference of Radiation Control Program Directors (CRCPD). It is expected that recipients will review this information for applicability to their licensed activities and consider actions, as appropriate.

### DESCRIPTION OF CIRCUMSTANCES

The Department of Health Services recently became aware of the opportunity to dispose of certain Class A unwanted radioactive sealed sources for facilities which do not have access to low level radioactive waste disposal. The collection is being supported by the Department of Energy's Global Threat Reduction Initiative (GTRI), the State of Utah Division of Radiation Control, and Energy Solution of Utah, and will last for a period of one year from the date the first waste is received at the Clive, Utah facility.

CRCPD is offering financial assistance equal to half the cost of disposal to generators who participate in the effort.

Only sealed sources which meet the criteria specified below will be considered for the program:

- Each source by itself must meet the definition of Class A waste as defined in 10 CFR 61.55.

- The quotient of the current activity of the radionuclide in the source divided by the volume of the source cannot exceed the Class A limit as specified in 10 CFR 61.55 tables.
- This includes any radionuclide not specifically listed in the 10 CFR 61.55 tables with a half-life < 5 years.
- Commonly used radionuclides that could qualify for the collection include:

Isotope	Class A Limit	Isotope	Class A Limit	Isotope	Class A Limit
<sup>60</sup> Co	700 μCi/cm <sup>3</sup>	<sup>125</sup> I	700 μCi/cm <sup>3</sup>	<sup>192</sup> Ir	700 μCi/cm <sup>3</sup>
<sup>137</sup> Cs	1 μCi/cm <sup>3</sup>	<sup>109</sup> Cd	700 μCi/cm <sup>3</sup>	<sup>65</sup> Zn	700 μCi/cm <sup>3</sup>
<sup>153</sup> Gd	700 μCi/cm <sup>3</sup>	<sup>133</sup> Ba	unlimited	<sup>204</sup> Tl	700 μCi/cm <sup>3</sup>
<sup>55</sup> Fe	700 μCi/cm <sup>3</sup>	<sup>68</sup> Ge	700 μCi/cm <sup>3</sup>	<sup>22</sup> Na	700 μCi/cm <sup>3</sup>
<sup>57</sup> Co	700 μCi/cm <sup>3</sup>	<sup>152</sup> Eu	unlimited	<sup>54</sup> Mn	700 μCi/cm <sup>3</sup>
<sup>210</sup> Po	700 μCi/cm <sup>3</sup>	<sup>147</sup> Pm	700 μCi/cm <sup>3</sup>	<sup>195</sup> Au	700 μCi/cm <sup>3</sup>

(Source must be below the limit in this chart.)

- The sealed source must be registered with the Off-Site Source Recovery Project (OSRP) before it can be accepted for disposal. If sources are already registered, licensees are encouraged to update their registration.
- Each source must be uniquely identified by a serial number or other unique identifier and the site should have ready any documentation available pertaining to a particular source's activity, isotope, and date of manufacture or original assay upon broker's packaging and acceptance of material.
- Here are examples of calculations to determine if the concentration is class A:

### Example 1

A 10 inch line source containing Ge-68 contains 2 millicuries. The diameter of the line source is 4 mm and its (integral) length is 10 inches.

Calculate the volume of the source:  $2^2 \times \pi \times \text{length in mm} = 3191.9 \text{ mm}^3$ . Convert to  $\text{cm}^3$ :  $3191.9 \text{ mm}^3 / 1000 \text{ mm}^3/\text{cm}^3 = 3.192 \text{ cm}^3$ . Calculate the concentration of Ge-68 present:  $2\text{mCi}/3.192 \text{ cm}^3 = 0.626 \text{ mCi per cubic cm or } 626 \text{ microcuries per cubic centimeter}$ .

The half-life of Ge-68 is <5 years and therefore per 10 CFR 61.55, Table 2 its class A concentration limit is 700 microcuries per cubic centimeter.

The source qualifies for the collection.

**Example 2**

A point source containing Co-60 contains 50 microcuries.

Assume a nominal volume for any point type source to be 1 cubic centimeter as allowed by Utah for this collection. So volume = 1 cm<sup>3</sup>

Calculate the concentration of Co-60 present:  $50 \mu\text{Ci}/1 \text{ cm}^3 = 50 \mu\text{Ci}/\text{cm}^3$

The half-life of Co-60 is >5 years and therefore per 10 CFR 61.55, Table 2 its class A concentration limit is 700 microcuries per cubic centimeter.

The source qualifies for the collection.

**DISCUSSION**

You must register any sources you wish to have considered for this program with the Off-Site Source Recovery Project (OSRP) before it can be accepted for disposal.

Go to <http://osrp.lanl.gov/PickUpSources.aspx> for information about how to register source(s). If you have already registered sources, you are encouraged to update their registration. Attached is additional information regarding this program.

This is a very time sensitive matter. The Wisconsin Department of Health Services encourages all licensees who have eligible sources that will not be used in the foreseeable future to take advantage of this variance to properly dispose of these types of sealed sources in a cost effective manner.

CRCPD will contact each participant to verify their sources and confirm their participation in the collection. Licensees will then be contacted by a broker to schedule a date and time for collection of their sources and contract for one-half the quoted cost of disposal.

**QUESTIONS OR ADDITIONAL INFORMATION**

This Information Notice requires no specific action or written response. If you have any question about the information in this notice, please contact Mark Paulson (608) 264-6516 or email at [Mark.Paulson@wi.gov](mailto:Mark.Paulson@wi.gov) or Emily Eggers at (608) 266-7384 or email at [Emily.Eggers@wi.gov](mailto:Emily.Eggers@wi.gov).