



Radiation Safety Associates, Inc.

19 Pendleton Drive, PO Box 107 • Hebron, CT 06248

July 13, 2010

Kathy Modes
U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Q-5
06-30007-01
03033025

RE: Exempt Distribution of Check Sources Containing 4% Thorium in Nickel
Our current License No. 30007-01

Dear Ms. Modes,

At your suggestion, I contacted Richard Struckmeyer at NRC Headquarters about an application for the above-referenced exempt distribution license. His opinion was that current regulations do not address exempt distribution of check sources containing source material. I am therefore soliciting your assistance to determine how I can pursue this business opportunity and still stay within the regulations of your agency.

The check sources we would like to distribute would be no more than a few millimeters thick by either approximately 5 cm diameter or a rectangle of approximately 100 cm².

One fairly comparable example you might consider is the distribution of chemicals such as uranyl acetate and thorium nitrate to unlicensed persons. These chemicals typically contain 40 to 50% source material by weight. The differences between what we propose to do versus what these chemical distributors are doing are 1) that the quantities of thorium that we would be distributing would be very small by comparison, and 2) in the material we would be distributing the thorium is part of a metal alloy, not in easily dispersible powdered form. With verification testing it could probably meet the definition of "special form" material under DOT rules ["...an indispersible solid radioactive material" (49 CFR 173.403)].

I also note that 10 CFR 40.51 Transfer of source or byproduct material states in part:

- (a) No licensee shall transfer source or byproduct material except as authorized pursuant to this section.
- (b) Except as otherwise provided in his license and subject to the provisions of paragraphs (c) and (d) of this section, any licensee may transfer source or byproduct material:
 - (5) To any person authorized to receive such source or byproduct material under terms of a specific license or a general license or their equivalents issued by the Commission or an Agreement State; {I understand this to mean that my company can distribute source material to persons under the general license issued in 10 CFR 40.22 Small quantities of source material.}

- (c) Before transferring source or byproduct material to a specific licensee of the Commission or an Agreement State or to a general licensee who is required to register with the Commission or with an Agreement State prior to receipt of the source or byproduct material, the licensee transferring the material shall verify that the transferee's license authorizes receipt of the type, form, and quantity of source or byproduct material to be transferred. *{We would confirm that the recipient was covered under a specific or general license as specified in section (d) below.}*
- (d) The following methods for the verification required by paragraph (c) of this section are acceptable:
- (1) The transferor may have in his possession, and read, a current copy of the transferee's specific license or registration certificate;
 - (2) The transferor may have in his possession a written certification by the transferee that he is authorized by license or registration certificate to receive the type, form, and quantity of source or byproduct material to be transferred, specifying the license or registration certification number, issuing agency and expiration date; *{We presume that the general license issued min 10 CFR 40.22 would satisfy this requirement.}*
 - (3) For emergency shipments the transferor may accept oral certification by the transferee that he is authorized by license or registration certificate to receive the type, form, and quantity of source or byproduct material to be transferred, specifying the license or registration certificate number, issuing agency and expiration date: *Provided*, That the oral certification is confirmed in writing within 10 days;
 - (4) The transferor may obtain other sources of information compiled by a reporting service from official records of the Commission or the licensing agency of an Agreement State as to the identity of licensees and the scope and expiration dates of licenses and registrations; or
 - (5) When none of the methods of verification described in paragraphs (d)(1) to (4) of this section are readily available or when a transferor desires to verify that information received by one of such methods is correct or up-to-date, the transferor may obtain and record confirmation from the Commission or the licensing agency of an Agreement State that the transferee is licensed to receive the source or byproduct material.

Please confirm in writing that we may distribute this material under the terms of 10 CFR 40.51 without amending our license, or provide information as to how this distribution might be accomplished.

Sincerely,



K. Paul Steinmeyer, RRPT
Radiation Safety Officer

This is to acknowledge the receipt of your letter application dated

7/13/10, and to inform you that the initial processing which includes an administrative review has been performed.

- Amendment (06-30007-01) There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

- Please provide to this office within 30 days of your receipt of this card
-

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 573182
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.