



**U.S. Customs and
Border Protection**

JUN 15 2007

Sattar Lodhi, Ph.D.
Senior Health Physicist
U.S. Nuclear Regulatory Commission
Region 1
Nuclear Materials Branch 2
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Q-2

Dear Dr. Lodhi:

03012771

This correspondence conveys several items regarding Nuclear Regulatory Commission (NRC) License 08-17447-01. We seek to clarify one condition, restate items 6 through 10, and add a few new sources or increase our items maximum amounts.

The condition we wish to clarify is 14G to include performance of leak tests. As the number of training sources has increased, and in order to periodically check gamma scanning systems against vendor leak tests, we have acquired a Canberra shielded well, a 2-inch by 2-inch Sodium Iodide detector and the Genie 2000 brand software for leak test analysis. We are using the methodology in Appendix J, NUREG 1556, volume 1, revision 1. The system and use were reviewed by E. Lynn McGuire, the Veterans Administration Radiation Safety Officer during our annual audit on March 1, 2007. We have enclosed photographs and an internal Standard Operating Procedure (SOP) used for leak test analysis for your review.

In order to streamline our authorizations and program management, we suggest restating conditions 6 through 8 as shown here:

6. Byproduct, source and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cobalt 60	A. no change	A. no change
B. Cesium 137	B. no change	B. no change

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C. Barium 133	C. Sealed sources Amersham model No. BDC-700, DuPont model NER-474, IPL models HEG-133 – formerly 225 and PHI- 133-GFS series; IPL model PHI Series.	C. 1 millicuries per source and 100 millicuries total
D. Iron 55	D. No change	D. no change
E. Cadmium 109	E. Sealed source (IPL model XFB); Sealed Sources Amersham models CUC.A1, CUS.A1N or CUC.D1; Foil.	E. 15 millicuries per source and 200 millicuries total
F. Cobalt 60	F. Sealed sources (IPL HEG series); IPL PHI- 137; or Ohmart-Vega, Dwg A-2100.	F. 10 millicuries per sources and 120 millicuries total
G. Cesium 137	Sealed sources; IPL model HEG series; IPL model PHI-137; IPL HEG-137 series	G. 10 millicuries per source and 200 millicuries total
H. Americium 241	H. Sealed neutron sources; sealed sources IPL model AM1.PO8; Amersham model AMC.24; AEA model AMN.PE1; Amersham AMC.A1 or AMC-D2; foils	H. 30 millicuries per source to 200 millicuries total
I. Californium 252	Sealed Sources IPL model N-252; ORNL model MC-11496 custom sources	I. 10 millicuries per source and 500 millicuries total

J. Depleted Uranium	J. Metal	J. 25 kilograms
K. Uranium 232	K. Sealed sources (Isotope Products Laboratories Catalogue item GF-432-D)	K. 10 microcuries per source and 120 microcuries total
L. Technitium-99m	L. Any	L. 25 millicuries per container and 200 millicuries total
M. Iodine 131	M. Any	M. 20 millicuries per container and 100 millicuries total
N. Nickel 63	N. Foils	N. 10 millicuries per source and 850 millicuries total

We suggest rewording of Item 9 as follows:

Items 6A and 6B are the sources used in gamma scanning systems for the detection of contraband. The sources must be used in fixed or portable gauging devices, including Science Applications International Corporation, Inc. (SAIC) fixed Vehicle and Cargo Inspection System (VACIS) models (Pallet, Railroad, VACIS II and Portal) and Mobile models by SAIC (Mobile VACIS) and Rapiscan (Mobile GARDs) that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210, or with an Agreement State and have been distributed in accordance with a Commission or Agreement State License to receive, possess and use the devices.

Item 6C includes the K-910-B (Buster) units. All other U.S. Customs and Border Protection (CBP) sources are used for training or equipment validation. These may be found at CBP Ports, temporary locations and training sites including Lorton, Virginia. Our principal training locations will be at the CBP Academy, Federal Law Enforcement Center, Glynco, Georgia, and the Border Patrol Academy, Artesia, New Mexico. All other source training uses will occur at CBP Ports or temporary locations.

We recommend restating Conditions (10) on our license as follows:

A. Licensed material in Items 6A, 6B, and the 6C Busters may be used at Ports of Entry (land, sea and air ports of entry) and at temporary job sites and training sites anywhere in the United States.

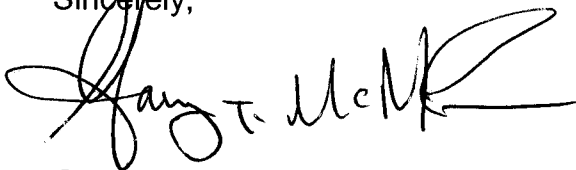
B. The Campbell Security Equipment Company model K-910-B Buster is used for measuring physical properties of matter. Other Barium 133 in 6C is used for training employees in the detection of radiation or for detection equipment performance checks.

C. Items 6D through 6M are training sources or sources used for equipment performance checks and will be used for training or use by CBP personnel at permanent and temporary CBP locations under a permit arrangement with the Radiation Safety Officer. The permit will list sources, storage and security requirements, reporting and survey frequency and the authorized trained individuals under which the material may be used.

D. The material at 6N is contained within the GE Ion Track or Vapor Detector Systems for explosives detection.

If you have any questions or require additional information, please contact Mr. Richard Whitman, U.S. Customs and Border Protection Radiation Safety Officer. He may be reached at (317) 614-4843 or at richard.t.whitman@dhs.gov on email.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary T. McMahon". The signature is stylized with a large, looped "G" and a long, sweeping horizontal line at the end.

Gary T. McMahon
Director, Occupational Safety and Health

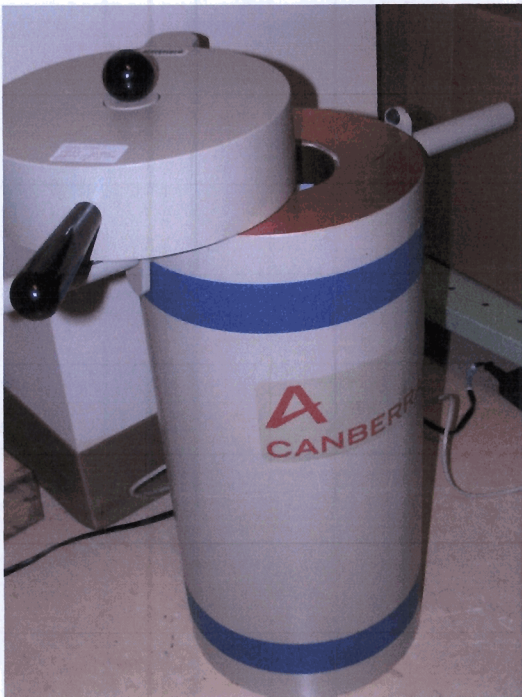


Figure 1. Canberra shielded well counter with a 2"x2" NAI detector.

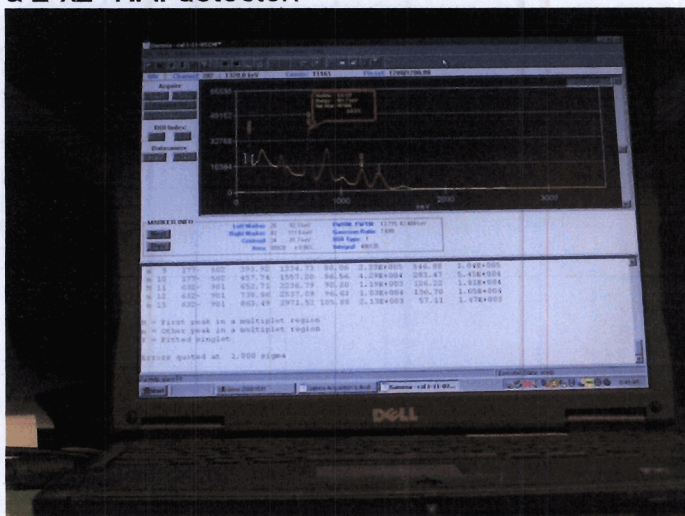


Figure 2. Genie brand software for well counter analysis on a dedicated computer.



Figure 3. CBP Leak test kit

This is to acknowledge the receipt of your letter/application dated

6/15/2007, and to inform you that the initial processing which includes an administrative review has been performed.

☒ AMEND. 08-17447-01 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** 140685.
When calling to inquire **about this** action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.