

July 19, 2011

Richard K. Struckmeyer
Division of Materials Safety and State Agreements
Office of Federal and State Materials and
Environmental Management Programs
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Mail Control No. 575390

Dear Mr. Struckmeyer,

This letter is in response to your request for additional information (Mail Control No. 575390) regarding Exempt Distribution Materials License # 32-23947-01E.

Response to Item 1:

Chemring Detection Systems will abide by all constraints, license conditions, requirements, representations, and commitments identified in existing license # 32-23947-01E granted to General Dynamics Armament & Technical Products, Inc.

Response to Item 2:

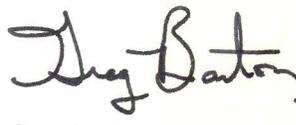
Chemring Detection Systems is not aware of any open inspection items or resulting enforcement actions associated with the existing license # 32-23947-01E. Therefore, Chemring Detection Systems has no current plans to take actions associated with open inspection items or resulting enforcement actions. Should any inspection items be identified, Chemring Detection System would take appropriate actions to ensure timely closure.

Response to Item 3:

Attachment 1 of this letter contains a copy of amendment 10 to our Radioactive Materials License # 060-1314-1 issued by the North Carolina Radiation Protection Section.

I trust this information will satisfy your request for information. If you have any questions or require additional information, please contact Todd Whitaker at (980) 235-2409.

Sincerely,


7/19/11

Greg Barton
Director of Operations, Detection System

Attachment 1
NC License # 060-1314-1



North Carolina Department of Environment and Natural Resources
Division of Environmental Health

Beverly Eaves Perdue
Governor

Terry L. Pierce
Director

Dee Freeman
Secretary

June 8, 2011

J. Todd Whitaker
Chemring Detection Systems, Inc.
4205 Westinghouse Commons Drive
Westlake Business Park
Charlotte, NC 28273-3864

SUBJECT: Amendment to Radioactive Materials License No. 060-1314-1

Dear Mr. Whitaker:

Enclosed is Amendment Number 10 to the North Carolina Radioactive Materials License identified above. This amendment has been issued in order to make the necessary changes requested in the Change of Control of Ownership with attachments dated May 23, 2011, signed by Greg Barton, Director of Operations. The Change includes:

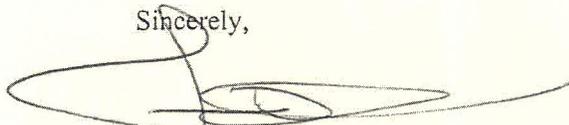
Change the name on the license to reflect new ownership.

Additionally, an administrative Amendment has been issued to put the license in our most current format, implement several update, and list Total Possession limits for radioactive material.

Note: If you need the possession limits increased from what was assigned during this administrative action you must apply for an amendment to increase your possession limits within thirty (30) days from the date of this letter. Failure to do so may result in a finding of noncompliance with your license and subsequent escalated enforcement actions.

Please review the license carefully to ensure that it includes the items and provisions you requested and that all items have been carried forward. If this agency can be of assistance to you at any time, please do not hesitate to contact me.

Sincerely,



James D. Albright, Manager
Radioactive Materials Branch

JDA/heb
Enclosure(s): as stated.



RADIOACTIVE MATERIALS BRANCH
RADIATION PROTECTION SECTION
N. C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

RADIOACTIVE MATERIALS LICENSE

Pursuant to North Carolina Regulations for Protection Against Radiation and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer, and import radioactive materials listed below; and use such radioactive material for the purpose(s) and at the place(s) designated below. This License is subject to all applicable rules and regulations of the North Carolina Department of Environment and Natural Resources now and hereafter in effect and to any conditions specified below.

1. Licensee Name: Chemring Detection Systems, Inc. 2a. Mailing Address: 4205 Westinghouse Commons Drive Westlake Business Park Charlotte, NC 28273-3864 b. Physical Address: 4205 Westinghouse Commons Drive Westlake Business Park Charlotte, NC 28273-3864 c. Radiation Safety Officer: J. Todd Whitaker	3. License No: 060-1314-1 4. Expiration Date: April 30, 2014 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">New License</td> <td style="width: 5%; text-align: center;">X</td> <td style="width: 25%;">Routine</td> <td style="width: 5%;"></td> <td style="width: 40%;">Corrected Copy</td> </tr> <tr> <td>Renewal</td> <td style="text-align: center;">X</td> <td>Administrative</td> <td></td> <td>Termination</td> </tr> </table> 5.a. Amendment No.: 10 b. Issuance Date: June 8, 2011	New License	X	Routine		Corrected Copy	Renewal	X	Administrative		Termination
New License	X	Routine		Corrected Copy							
Renewal	X	Administrative		Termination							

6. Radioactive Material (element and mass no.)	7. Chemical and/or Physical Form	8. Maximum Amount of Radioactivity and/or Quantity of Radioactive Material which Licensee May Possess at Any One Time.
A. Americium 241	A. Plated Source	A. Total Possession not to exceed 0.0075 microcuries
B. Americium 241	B. Liquid solution (xylene surfactant based liquid scintillation cocktail)	B. Total Possession not to exceed 120 nanocuries No single source to exceed 20 nanocuries
C. Americium 241	C. Sealed Sources	C. Total Possession not to exceed 25 millicuries No single source to exceed 250 microcuries
D. Americium 241	D. Foil Source	D. Total Possession not to exceed 5,750 microcuries No single source to exceed 115 microcuries
E. Nickel 63	E. Sealed or Foil Source	E. Total Possession not to exceed 400 millicuries No single source to exceed 100 millicuries
F. Nickel 63	F. Foil	F. Total Possession not to exceed 0.11 microcuries
G. Nickel 63	G. Ring or Foil Source	G. Total Possession not to exceed 150,000 millicuries No single source to exceed 15 millicuries
H. Hydrogen 3 (Tritium)	H. Sealed Sources	H. Total Possession not to exceed 100 millicuries
I. Krypton 85	I. Sealed Source	I. Total Possession not to exceed 30 millicuries No single source to exceed 30 millicuries.

9. Authorized Use:

- A. To be used for instrument calibration and reference source.
- B. For storage only.
- C. For the receipt and evaluation of custom devices for possible manufacture.



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N. C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

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RADIOACTIVE MATERIALS LICENSE

9. Authorized Use (continued)
- D. To be used for research and development as defined in 15A NCAC 11 .0104 (107) for possession, use, storage and development of chemical detectors. Licensed material previously manufactured and distributed in chemical detectors to persons exempt from licensing pursuant to U.S. Nuclear Regulator Commission License No. 09-23887-01E and Registry of Radioactive Sealed Sources and Devices No. NR-1167-D-101-E may be received for servicing including possible source replacement. Devices containing these sources may only be returned to the original purchaser and may not be otherwise transferred except as permitted by 15A NCAC 11 .1628.
 - E. For the receipt and evaluation of custom devices for possible manufacture.
 - F. To be used for instrument calibration and reference source.
 - G. For the receipt and evaluation of custom devices for research, development, manufacture, and distribution of chemical detectors.
 - H. For the receipt, evaluation, research, and development of detection sensor equipment.
 - I. To be used in a TSI Incorporated Model 3054A Static Charge Neutralizer.
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CONDITIONS

- 10. The authorized place of use is the licensee's address stated in Item 2b. above.
- 11. The licensee shall comply with the provisions of 15A NCAC 11 .1600 "Standards for Protection Against Radiation," and 15A NCAC 11 .1000 "Notices, Instructions, Reports and Inspections." (The North Carolina Regulations for Protection Against Radiation are contained in 15A NCAC 11.)
- 12.
 - A. Radioactive material shall be used by, or under the supervision of J. Todd Whitaker.
 - B. Licensed radioactive materials may also be used by individuals who have completed the training program as outlined in the Application for Amendment with attachments dated April 05, 2005. The licensee shall retain records of initial training, on-the-job training and re-training for inspection by the agency. These records shall be retained for a minimum of five (5) years after the company no longer employs the individual.
 - C. The Radiation Safety Officer for the activities authorized by this license shall be J. Todd Whitaker.
- 13.
 - A. Each sealed source containing radioactive material, other than Hydrogen 3 with a half-life greater than thirty (30) days and in any form other than gas, shall be tested for leakage and/or contamination at intervals not to exceed six (6) months, except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed three (3) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested.
 - B. Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma-emitting material or 10 microcuries or less of alpha-emitting material.
 - C. Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six (6) months prior to the date of use or transfer.
 - D. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the agency.



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RADIATION PROTECTION SECTION
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RADIOACTIVE MATERIALS LICENSE

CONDITIONS (continued):

13. E. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with agency regulations. A report shall be filed within five (5) days of the test with the Radioactive Materials Branch, Radiation Protection Section, Department of Environment and Natural Resources, 1645 Mail Service, Raleigh, NC 27699-1645, describing the equipment involved, the test results, and the corrective action taken.
- F. Tests for leakage and/or contamination shall be performed by persons specifically authorized by the agency to perform such services.
14. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the agency and shall include the quantities and kinds of radioactive material, location of sealed sources, and the date of the inventory.
15. Sealed sources containing radioactive material shall not be opened.
16. The licensee shall not use radioactive material in or on human beings or in field applications where activity is released except as provided otherwise by specific conditions of this license.
17. Radioactive material shall not be used in or on human beings or in products distributed to the public.
18. The licensee shall not transfer possession and/or control of materials or products containing radioactive materials except:
 - A. by transfer of waste to an authorized recipient; or
 - B. by transfer to a specifically licensed recipient.
19. The licensee may transport licensed material or deliver licensed material to a carrier for transport, in accordance with the provisions of Section 71.5, Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material For Transport."
20. The licensee shall ensure that no individual "member of the public" [Reference: 15A NCAC 11 .0104(81)] receives a radiation dose in excess of the limits specified in 15A NCAC 11 .1611(a) while conducting licensed operations.
21. This license may be subject to amendment, revision, modification, suspension, or revocation in accordance with the provisions of 15A NCAC 11 .0344.
22. A. The licensee is authorized to provide leak test services to his customers in accordance with the licensee's approved Radiation Protection Program.
B. The test shall be capable of detecting the presence of 0.005 microcurie of contamination on the test sample. The test sample shall be taken in accordance with the instructions provided in the GDATP Leak Test Kit.
C. The results of the leak test shall be provided to the customers in units of microcurie.
23. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 15A NCAC 11.0353 for establishing decommissioning financial assurance.
24. The licensee shall annually review its Radiation Protection Program for content and implementation [Ref. 15A NCAC 11 .1603(c)]. Documentation of the Radiation Protection program reviews shall be retained for inspection by the agency [Ref. 15A NCAC 11 .1636].
25. The licensee shall institute the provisions of 15A NCAC 11 .1610 when an occupationally exposed woman voluntarily informs her supervisor, in writing, of her pregnancy and the estimated date of conception.

RADIOACTIVE MATERIALS LICENSE

CONDITIONS (continued):

26. In addition to the possession limits referenced in Item 8. above, the licensee shall further restrict possession of radionuclides listed in the table below to the quantities noted within the table. Sum of fractions for the radionuclides listed below shall not exceed unity:

Radionuclide	Quantity (curies)	Radionuclide	Quantity (curies)
Am-241	16	Pm-147	10,800
Am-241:Be	16	Pu-238	16
Cf-252	5.4	Pu-239:Be	16
Cm-244	13.5	Ra-226	10.8
Co-60	8.1	Se-75	54
Cs-137	27	Sr-90 (Y-90)	270
Gd-153	270	Tm-170	5,400
Ir-192	21.6	Yb-169	81

27. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6., 7., and 8. of this license in accordance with statements, representations and procedures and attachments listed below. The *North Carolina Regulations for Protection Against Radiation* shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application with attachments dated March 12, 2009, signed by Carl Ward, Director of Operations, Detection Systems.
- B. Change of Control of Ownership with attachments dated May 23, 2011, signed by Greg Barton, Director of Operations, and an Administrative Amendment to put the license in our most current format, implement several update, and list Total Possession limits for radioactive material.


 For: W. Lee Cox, III 
 Chief, Radiation Protection Section

1 000 WILLIAMS, ETO WYI
4205 Westinghouse Commons Dr
Charlotte, NC 28273



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