

030-38198

<p>NRC FORM 313 (3-2009) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40</p> <p style="text-align: center;">U.S. NUCLEAR REGULATORY COMMISSION</p> <p style="text-align: center; font-size: 1.2em;">APPLICATION FOR MATERIALS LICENSE</p>	<p>APPROVED BY OMB: NO. 3150-0120 EXPIRES: 3/31/2012</p> <p>Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</p>
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INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

<p>APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:</p> <p>OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001</p> <p>ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:</p> <p>IF YOU ARE LOCATED IN:</p> <p>ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:</p> <p>LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415</p>	<p>IF YOU ARE LOCATED IN:</p> <p>ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:</p> <p>MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352</p> <p>ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:</p> <p>NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 612 E. LAMAR BOULEVARD, SUITE 400 ARLINGTON, TX 76011-4125</p>
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PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

<p>1. THIS IS AN APPLICATION FOR (Check appropriate item)</p> <p><input checked="" type="checkbox"/> A. NEW LICENSE</p> <p><input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____</p> <p><input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____</p>	<p>2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)</p> <p>ELCAN Optical Technologies 1601 North Plano Road Richardson, Texas 75081</p>
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<p>3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED</p> <p>ELCAN Optical Technologies 1601 North Plano Road Richardson, Texas 75081</p>	<p>4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION</p> <p>Ms. Elizabeth Jurik, Environmental, Health & Safety Mgr.</p> <p>TELEPHONE NUMBER</p> <p style="text-align: center;">(972) 344-8049</p>
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SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

<p>5. RADIOACTIVE MATERIAL</p> <p>a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.</p>	<p>6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.</p>		
<p>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.</p>	<p>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.</p>		
<p>9. FACILITIES AND EQUIPMENT.</p>	<p>10. RADIATION SAFETY PROGRAM.</p>		
<p>11. WASTE MANAGEMENT.</p>	<p>12. LICENSE FEES (See 10 CFR 170 and Section 170.31)</p> <table style="width:100%;"> <tr> <td style="width:60%;">FEE CATEGORY 3H</td> <td style="width:40%;">AMOUNT ENCLOSED \$ 9,700.00</td> </tr> </table>	FEE CATEGORY 3H	AMOUNT ENCLOSED \$ 9,700.00
FEE CATEGORY 3H	AMOUNT ENCLOSED \$ 9,700.00		

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

<p>CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE</p> <p>Mr. Robert Clayton; Director, Contracts</p>	<p>SIGNATURE</p>	<p>DATE</p> <p>02/02/2010</p>
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FOR NRC USE ONLY					
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

022793

APPLICATION FOR MATERIALS LICENSE
Continuation of NRC FORM 313 U.S. NUCLEAR REGULATORY COMMISSION

ELCAN Optical Technologies wishes to distribute or initially transfer products containing byproduct material, to persons exempt from licensing, is applying for an exempt distribution license from the NRC. Note: This application has been organized consistent with NUREG-1556, Volume 8 and 10 CFR 32.11.

The Specter Sighting Systems are Optical Sights (OS) constructed with tritium gas in sealed glass tubes. Tritium (^3H) is the sole radionuclide used in this device. Each source consists of a quantity of two sealed glass tubes, each containing 0.148 mCi (5.476 GBq) of ^3H for a total of 0.296 mCi per device.

A sealed source and device registration application is currently under review. A license application to possess and distribute the Specter OS from the ELCAN Optical Technologies - Richardson, Texas facility to customers throughout the United States is pending with the Texas Department of State Health Services.

The Specter OS are used by allied forces and law enforcement personnel to detect, identify, and guide appropriate actions. They are mounted on weapons obtained provided by the user. The optical sight devices are used for daylight operations. The Specter Sight is designed for small caliber weapons and their associated performance and environmental criteria by having a rugged mechanical design. The weapons are fully automatic, gas-operated, magazine or belt-fed, individual weapons. They can be fired from the shoulder, hand-held or from a bipod. They are equipped with rails to mount optics.

ELCAN has supplied over 200,000 optical sights to customers around the world. ELCAN is in current production of several types of Specter Optical Sights across thermal, image intensification and daysights. ELCAN manufactures all of its products under the ISO 9001:2008 Quality Assurance System, ensuring accurate tracking of tritium quantity during the manufacturing process. ELCAN also has extensive environmental testing capabilities to verify shock, immersion, altitude, temperature, vibration, salt, fog and humidity.

The device is intended for use by persons exempt from Agreement State or U.S. Nuclear Regulatory Commission radioactive materials licensing requirements.

The Specter OS will be manufactured and shipped from the ELCAN facility in Midland, Ontario, Canada. Manufacturing will be scheduled in response to customer orders to minimize the need for lengthy storage of the devices. Inventory will be shipped to the Richardson, Texas facility within 60 days (with an average of 30 days) of manufacture and will remain in Richardson for approximately 30 days awaiting transfer to customer locations. All radioactive materials will be securely stored when not in use.

Due to the design of the sealed tubes, there is no measurable change in the ^3H quantity during transport from Midland to Richardson to the customer location, either as a result of loss of material (such as from leakage) or from reconcentration of the byproduct material.

There are no circumstances under which the gas concentration limit for ^3H established in 10 CFR 30.70 Schedule A (5E-6 $\mu\text{Ci/ml}$) would be exceeded.

Given the sole use of the Specter OS and the inaccessibility of the ^3H sources, it is not reasonable to expect that any licensed material could be incorporated in any food, beverage, cosmetic, drug or other commodity or product designed for ingestion or inhalation by, or application to, a human being. Although the quantities of radioactive material contained in these products is extremely small, the basic radiation principles of time, distance, and shielding should be practiced as effective methods for minimizing exposure.

An Operating Manual has been prepared by the manufacturer and will be supplied to users upon purchase of the device. While being utilized by the end user, the sight assembly device (and specifically the ^3H source) will not require technical maintenance. Exempt quantity licensed products containing

radioactive material should be used only as intended by the manufacturer and in accordance with the instructions provided with the products.

Specter OS are a precision optical instrument and should be treated as such. The sight is rugged and designed for military use. However, severe abuse may well irreparably damage the sight. Minimal technical maintenance is required as there are no moving parts in the sealed optical unit. But should the sight be subjected to sand or dust environments and the zeroing dials become clogged or stiff to operate the sight should be disassembled and each part checked for wear and parts replaced as necessary, lubricated and re-assembled.

If the equipment malfunctions, the user will follow instructions to package the device in accordance with U.S. Department of Transportation requirements for return to ELCAN – Richardson. The units will then be forwarded for repair or disposal at ELCAN-Midland. All appropriate NRC, DOT, and international transportation regulations will be adhered to as the units will be returned to ELCAN-Midland.

Dose Estimates – Accident Conditions

Usage – The maximum credible accident involving the use of the gunsight is rupture of the source and instantaneous release of the gas during firing is within tolerance with a maximum estimated dose commitment to user of $H = 0.85$ mrem.

Storage – The maximum credible accident involving storage of the sights would involve a fire in the storage area which ruptures the capsules containing the tritium gas is within tolerance at $H = 1.5$ mrem/min with a dose commitment to fireman remaining in enclosed area without respiratory protection for 2 minutes for purpose of rescue = 3.0 mrem
Ingestion or inhalation of the entire H-3 content of a gun sight is within tolerance at $H = 18.6$ mrem

Dose Estimates – Normal Conditions

Normal Use – No radiation dose commitment is anticipated during normal use.

Storage – Distilled water immersion tests on the sights indicated a maximum leakage rate of 79.2 dpm, or $3.6E-5$ μ Ci/sight in 24 hours is within tolerance at $H = 2.2 E-4$ mrem

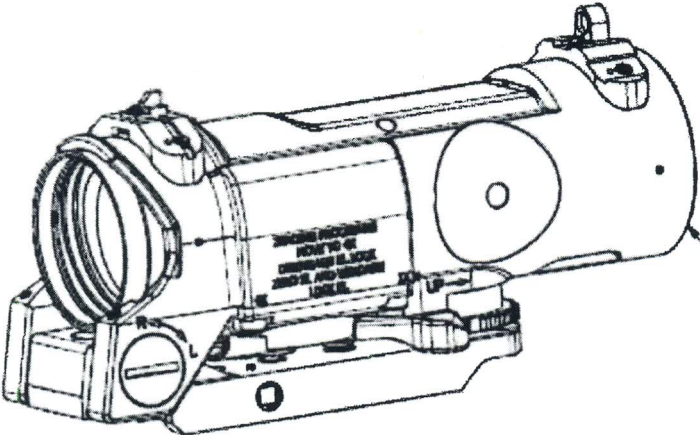
Disposal of Units

These exempt distribution products may be disposed of in regular waste without regard to their radioactive content providing the customer is not a specific licensee and all radiation symbols have been removed or defaced. If the customer (laboratory/academic institution) receiving the exempt quantity is a specific licensee, then the customer is subject to the requirements of 10 CFR Part 20 in areas where 10 CFR 30.18 is silent (e.g., waste disposal).

No significant radiation dose commitment is expected to result from disposal of the Specter OS since rapid dispersion and dilution with the atmosphere would rapidly reduce tritium concentrations in air to background levels.

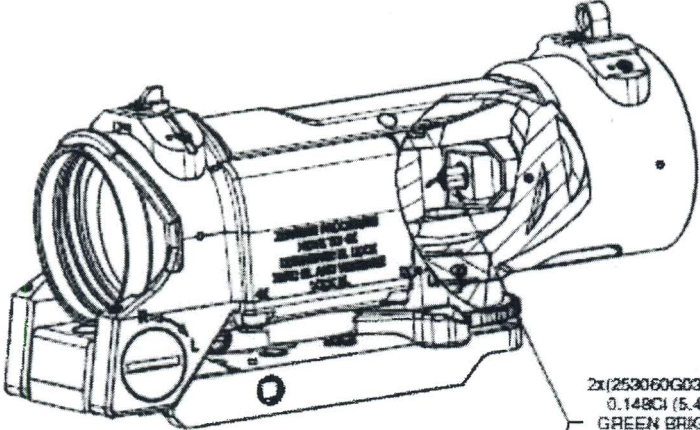
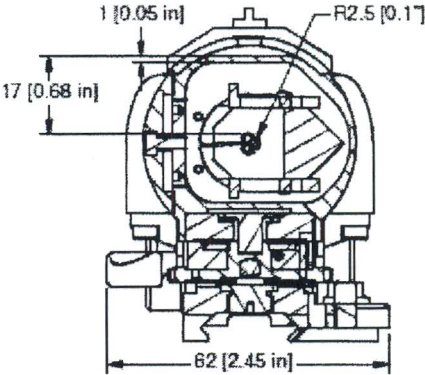
Users of the devices are instructed to return defective units and unwanted units to the distributor for disposal. The cost of this product is such that inadvertent or careless disposal is unlikely.

PART REFERENCE # 902970-001

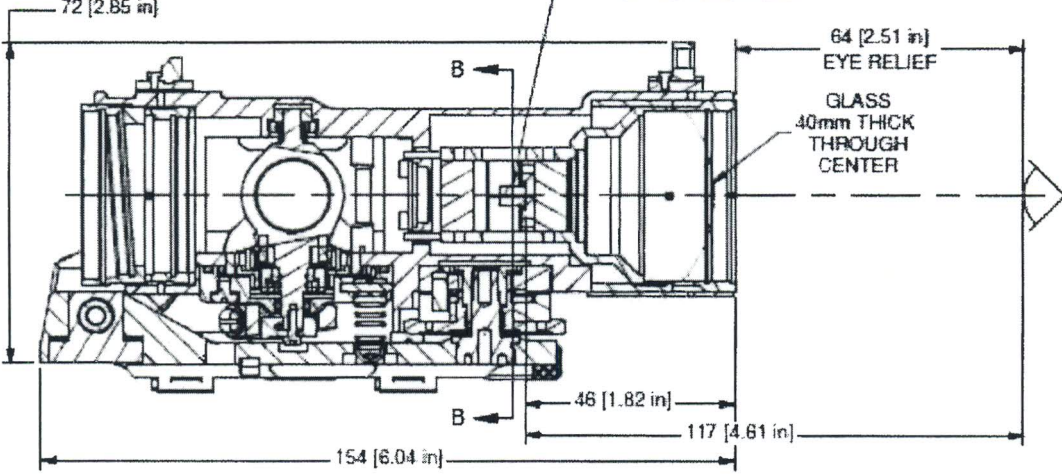


HOUSING IS
CAST ALUMINUM

BETA LIGHT LOCATION
(SECTION B-B)



2x(253060G0340A) BETA LIGHT
0.148Ci (5.476 GBq) EACH
GREEN BRIGHTNESS 340mL
+ 1 Ø2mm DOWEL TO MAKE
UP THE THIRD PIECE



FAX TRANSMITTAL

of pages ▸

To: Michael Hopkins From: _____
 Dept./Agency: _____ Phone #: _____
 Fax #: 705 528 7123 Fax #: _____
 NSN 7540-01-317-7398 5099-101 GENERAL SERVICES ADMINISTRATION

ATTN: BRENDA BROWN P. 01/01
 U.S. Nuclear Regulatory Commission
 License Fee and Accounts Receivable Branch
 P. O. Box 954514
 St. Louis, MO 63195-4514

528-7123
 ATTN: MICHAEL HOPKINS (705-526-5831)
 ELCAN OPTICAL TECHNOLOGIES
 A RAYTHEON COMPANY
 1601 NORTH PLANO ROAD
 RICHARDSON, TX 75081

*Check taken
 to Fees 02-17-10*

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TYPE OF ACTION
 NEW LICENSE
 RENEWAL OF LICENSE
 AMENDMENT TO LICENSE
 REQUESTED DATE _____
 LICENSE NUMBER _____
 CONTROL NUMBER NEW
 022793

I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of 10 CFR Part 170. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
3H	\$ 9,700.00	\$	\$
9A	\$ 19,500.00	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$

FEE(S) DUE \$ 29,200.00
 PAYMENT RECEIVED \$ 19,500.00
 AMOUNT DUE \$ 9,700.00

II. FEE NOT REQUIRED

Check Number Enclosed is your check which accompanied your request. The fee is not required because:
 Check Number We received your check listed in payment of the fee.
 Date of Request The Licensing staff has informed us that your request is to be considered as a continuation of the request listed.
 Control Number
 Date of Request Your request was combined, prior to review, with the request listed.
 Control Number

III. CHECK RETURNED

Check Number Enclosed is your check which was returned to us by the bank for:
 INSUFFICIENT FUNDS
 ACCOUNT CLOSED
 OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

License Number The listed license was issued without the required fee being collected. The fee required is noted in Section I of this form.
 Amendment Number
 Date Issued
 The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).
 Because of the urgency of your request, the license was issued with remittance of the prescribed fee noted in Section 1 of this form.

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

SIGNATURE -- LICENSE FEE ANALYST
Brenda Brown
 BRENDA BROWN 301-415-8055

(LEAVE BLANK)

DATE

01/15/2010