

NRC FORM 313 (3-2009) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 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.
<h2 style="margin: 0;">APPLICATION FOR MATERIALS LICENSE</h2>		

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.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH: 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	IF YOU ARE LOCATED IN: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO: <div style="text-align: right; font-size: 2em; margin-right: 20px;">Br 2</div> MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352
ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS: IF YOU ARE LOCATED IN: 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: LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19408-1416	IF YOU ARE LOCATED IN: 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: NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 812 E. LAMAR BOULEVARD, SUITE 400 ARLINGTON, TX 76011-4125

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.

1. THIS IS AN APPLICATION FOR (Check appropriate item) <input type="checkbox"/> A. NEW LICENSE <input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER <input checked="" type="checkbox"/> C. RENEWAL OF LICENSE NUMBER <u>06-17253-01</u>	2. NAME AND MAILING ADDRESS OF APPLICANT (include ZIP code) Victor J. Bortolot, Ph.D. Bortolot Daybreak Corp. 50 Denison Drive Guilford CT 06437
3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED 10 Sycamore Way, Unit 110 Branford CT 06405 (see also addendum for additional site)	4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION Victor J. Bortolot TELEPHONE NUMBER (203) 453-3299

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.

5. RADIOACTIVE MATERIAL a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.
9. FACILITIES AND EQUIPMENT.	10. RADIATION SAFETY PROGRAM.
11. WASTE MANAGEMENT.	12. LICENSE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY <u>3P/03122</u> AMOUNT ENCLOSED \$ <u>0</u> (see note)

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.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE **SIGNATURE** **DATE**

Victor J. Bortolot, RSO		7/23/2012			
FOR NRC USE ONLY					
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

Outside of Scope

VJ Bortolot, Ph.D. Technical Director and RSO
Bortolot Daybreak Corporation,
50 Denison Drive Guilford CT 06437

renewal of USNRC license number 06-17253-01

In most cases, the material provided here, and in the further attachments, is identical to that submitted with the original application of the USNRC license granted us in 1977, and renewed multiple times since.

Continuation of item 3. Per the last amendment of this license in 2003, a secondary site where the sources may be used is 50 Denison Drive, Guilford, CT 06437.

Item 5. Radioactive Material

Sr 90 sealed source (ICN Pharmaceuticals, Inc., model no. 75129) 100 mCi/source/1 source total

Outside of Scope

Sr90 sealed source (ICN Pharmaceuticals, Inc. model no. 77241) 0.01 microCi/source/ 1 source for leak test comparison. NOTE: the original activity of the one source I possess under this license is 0.0076 microCi in 1977. Present activity is about 0.003 microCi, and therefore ought to be below regulatory concern. Is it necessary that this still be licensed?

Item 6 Purposes for which radioactive material will be used.

Sensitivity calibrations of ceramic and other mineral materials for the purpose of thermoluminescent and optically stimulated luminescent dating. Both response to beta and alpha radiation must be determined for this purpose, in order to determine the archaeological or geological absorbed radiation dose. (See our website at daybreaknuclear.us for information on this measurement technique and the instrumentation used in attaining it.) Bortolot Daybreak is one of only a few commercial laboratories in the world, and the only one in the US, performing this service for authentication of art antiquities. We have over 1200 international clients for this service. Our parent company, Daybreak Nuclear and Medical Systems, Inc. has provided about 150 measurement systems to laboratories around the world to do luminescence dating of all sorts, both for archaeological and geological applications.

Item 7. Individual responsible for radiation safety program. Victor J. Bortolot, Ph.D. Training experience and curriculum vita are attached, at the end the application items.

Outside of Scope

Pages 5-20 not
enclosed -
Outside of
Scope