

MUN 12 1992

30-12440

Daybreak Nuclear & Medical Systems
Attn: Victor J. Bortolot, Ph.D.
Technical Director
50 Denison Drive
Gullford, Connecticut 06437

Gentlemen:

This refers to your letter dated March 20, 1992, for renewal of Materials License 06-17253-01.

We received your check for \$480 which accompanied your March 20, 1992, application. However, a renewal fee of \$500 is required as specified in fee Category 3P of \$170.31, 10 CFR 170, effective August 9, 1991, copy enclosed. Accordingly, an additional fee of \$20 is required for your application.

We note that a corrected copy of Amendment No. 03 was issued December 3, 1991, and that the letter transmitting the corrected copy to you stated that your license is subject to fee Category 3E. Since License No. 06-17253-01 does not authorize "irradiation of materials," but rather authorizes the use of irradiation devices for thermoluminescence sensitivity calibration, fee Category 3P is the correct fee category for your license. I apologize for the incorrect fee information you were given.

We also acknowledge your \$1,228.42 payment for Invoice No. AM01173-91; however, an annual fee of \$1,400 is required as stated on the invoice for fee Category 3P. In our letter dated April 27, 1992, we informed you that an additional fee of \$307.77 was due by May 8, 1992, and that if payment was not received, interest and other charges would continue to accrue. Since no payment was received, the amount now due through June 29, 1992, for Invoice AM01173-91 is \$320.57.

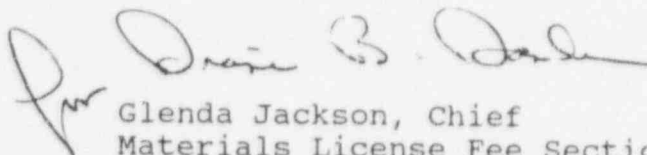
Payment of the additional fees totalling \$340.57 specified above should be made to the U.S. Nuclear Regulatory Commission and mailed to the following address:

U.S. Nuclear Regulatory Commission
ATTN: Sandra Kimberley
License Fee and Debt Collection Branch, OC/DAF
Mail Stop MNBB 4503
Washington, D.C. 20555

Your March 20, 1992, application will be processed by the Region I Licensing staff located at 475 Allendale Road, King of Prussia, Pennsylvania 19406. The additional fees are required prior to issuance of the renewal. When submitting the fee, please refer to CONTROL NUMBER 113110.

If you have any questions, please contact Sandra Kimberley at 301-492-8743.

Sincerely,



Glenda Jackson, Chief
Materials License Fee Section
License Fee and Debt Collection Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:

July 10, 1991, Federal Register notice

DISTRIBUTION:

Materials Annual Fee Correspondence FY 91 w/inc.

Invoice AM01173-01

GJackson w/o inc.


DDandois w/o inc.


DWeiss


LFDCB R/F (2)

DAF R/F

b:28:borto.ltr

OFFICE: LFDCB 
NAME: SKimberley
DATE: 6/8/92

LFDCB 
GJackson
6/11/92


LFDCB
DDandois
6/12/92

4/14/92

CONVERSATION RECORD

TYPE

☐ VISIT☐ CONFERENCE☐ TELEPHONE☐ INCOMING☐ OUTGOING

ROUTING

NAME/SYMBOL INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

DONG BROOKHUS

ORGANIZATION (Office, dept., bureau, etc.)

NMSS

TELEPHONE NO.

SUBJECT

Classification of license

authorized use

SUMMARY

Long, RT, called Mr. Portet to clarify their use. They train people to take mugshots of prisoners at different locations. Mr. Portet then takes the camera back to his location to "date". He does not manufacture - but uses 1 machine which he built.

Dong Brookhus stated the authorized use is considered X-ray fluorescence - and is a type of measurement - not an irradiation authorization. (Many machines are irradiators, but use as measurement.)

(Detroit Institute of Art applied for a SS&D for the machine which Detroit Institute uses.)

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

S. Kimberly

DATE

4/14/92

ACTION TAKEN

(3P) ok

SIGNATURE

TITLE

DATE

50271-101

U.S. GPO: 1987-161-247/60121

CONVERSATION RECORD

OPTIONAL FORM 271 (12-
DEPARTMENT OF DEFENSE)

TOTAL P.01

CONVERSATION RECORD

DATE

4/14/92

TYPE

☐ VISIT☐ CONFERENCE☐ TELEPHONE

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

☐ INCOMING☐ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

ORGANIZATION (Office, dept., bureau, etc.)

TELEPHONE NO.

DONG BROADBENT

NMSS

SUBJECT

Classification of ~~license~~
authorized use.

SUMMARY

Dong, RI, called Mr. Portolot to clarify their use. They train people to take samples of printings at different locations. Mr. Portolot then takes the samples back to his location to "date". He does not manufacture - but uses 1 machine which he built.

Dong Broadbent stated the authorized use is considered X-ray fluorescence - and is a type of measurement - not an irradiation authorization. (Many machines are irradiators, but use is measurement.)
(Detroit Institute of Art applied for a SS&D for the machine which Detroit Institute uses.)

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

S. Kimberly
(3P)

4/14/92

ACTION TAKEN

SIGNATURE

TITLE

DATE

50271-101

G.U.S. GPO: 1987-181-347/50121

CONVERSATION RECORD

OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

TOTAL P.01



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 24, 1997

MEMORANDUM TO:

John Kinneman, Chief
Nuclear Material Safety Branch
Division of Radiation Safety and Safeguards

FROM:

Steven Baggett, Chief
Sealed Source Safety Section
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and Medical
Nuclear Safety

SUBJECT:

RESPONSE TO TECHNICAL ASSISTANCE REQUEST
CONCERNING VICTOR J. BORTOLOTT, Ph.D.

This memorandum is in response to your technical assistance request dated April 26, 1994, concerning the devices being used and proposed for use by the licensee, Victor J. Bortolot, Ph.D., License No. 06-17253-01, Control No. 116381. Since the receipt of this request, the Sealed Source Safety Section has corresponded with Dr. Bortolot concerning review and registration of his devices. Two letters were sent to Dr. Bortolot: the first, March 1, 1995, requested additional information on the devices currently in use; and the second, November 16, 1995, requested information within 30 days, otherwise the application would be considered abandoned. Dr. Bortolot responded with a letter dated December 11, 1995, stating that he would like to resubmit the license application renewal in its original form without the additional sources and devices, that is, as submitted in his previous license renewals.

The technical assistance request contained three requests for assistance in properly categorizing and authorizing the activities of Dr. Bortolot's license. These requests and responses are as follows:

1. Please confirm the categorization of the two devices currently in use by Dr. Bortolot. The devices are categorized as "measurement instruments," however, Dr. Bortolot believes they should be categorized as "irradiators."

Response:

The two devices utilized by Dr. Bortolot more closely meet the classification of "Irradiators Self Shielded Less Than 10,000 Curies," Program Code 03510. These devices are designed to irradiate materials. Once irradiated, the materials are heated and analyzed using a thermoluminescence measurement system. The radiation utilized does not measure anything. The "measurement" is made subsequent to the irradiation. The radiation is used to alter/modify the material, similar to the purpose of the generic irradiator. However, the isotopes utilized and the low activities are not characteristic of the generic irradiator.

CONTACT: Brian Smith
(301) 415-5723

thermoluminescence measurement system. The radiation utilized does not measure anything. The "measurement" is made subsequent to the irradiation. The radiation is used to alter/modify the material, similar to the purpose of the generic irradiator. However, the isotopes utilized and the low activities are not characteristic of the generic irradiator.

"Measuring systems" are designed to measure resulting radiation levels once the radiation has passed through or backscattered from the material of interest. This measurement then relates to a certain quantity, level, or amount. Also included in measuring systems are gas chromatographs and x-ray fluorescence devices. The two devices used by Dr. Bortolot do not utilize radiation in the same manner as devices classified as "measuring systems."

It is our conclusion that these devices do not fit exactly into either category. After reviewing the information submitted with the 1992 renewal, the two devices used by Dr. Bortolot appear to be adequately designed and the procedures listed for the safe use of these appears sufficient. In addition, Dr. Bortolot states that his annual exposure has not been greater than 250 mR during the term of his current license. Due to the three year inspection period for "irradiators," categorization as "irradiators" would be imprudent and would be a poor use of agency resources. Therefore, due to the low risk involved with the use of these two devices and the more appropriate inspection frequency of once every seven years, the two devices should be categorized as "Measuring Systems Analytical Instruments," Program Code 03122.

2. Please determine if any irradiators, or devices used with the irradiators, require a review. Specifically, the application dated March 20, 1992, contains descriptions of additional devices that may be distributed in the future.

Response:

No, these new irradiators do not need to be reviewed. Dr. Bortolot, in his letter dated December 11, 1995, to Region I with cc to Steven Baggett, stated that he wishes "to re-submit his license application renewal in its original form without the additions, that is, as submitted in 1981 and 1986." In the 1981 and 1986 applications, only two devices are requested to be used in his analytical laboratory. Therefore, since these new devices will neither be used by Dr. Bortolot or distributed to other licensees, a device review is not necessary. However, at such time in the future that Dr. Bortolot determines that he will require the use of these devices or any others, or wishes to distribute these to other licensees, a device review will be required for those models.

3. Please confirm if a device review and registration is necessary for possession and use of the sources in devices in Dr. Bortolot's analytical laboratory as he has been licensed in the past.

Response:

No, review and registration of these devices is not necessary. These two devices have been in Dr. Bortolot's possession and licensed for use since 1981. At the time of obtaining his materials possession and use license, he supplied sufficient safety information on the two devices for the license reviewer to approve their use in Dr. Bortolot's analytical laboratory. The requirements for a licensee to apply for a review and registration of a device became effective in August 1987. In the preamble to the amendment to 10 CFR Parts 30 and 32 incorporating these

John Kinneman

3

requirements, it states that the amendment is merely a codification of current administrative practice and requires no additional action for sources and devices presently used because necessary safety information was evaluated before issuance of the specific license to the user. However, if a user modifies a device currently licensed for use or wishes to manufacture and distribute commercially a new device, a safety review of the device and registration is necessary.

Dr. Bortolot may still distribute the devices commercially without sources since this is outside NRC authority. The purchasers of the devices would be required to apply for a custom review and registration for their devices. We highly discourage this practice. One of his devices, a model 801 sample irradiator, has been reviewed and registered for custom use in the past. However, Dr. Bortolot may continue to distribute his devices with sources commercially to holders of research and development and broad scope licenses. Policy and Guidance Directive 84-22 permits those holders of research and development and broad scope licenses with the license condition to use byproduct material in "any form" to use sealed sources in devices without the device being reviewed and registered.

cc: Ms. Elizabeth Ullrich, Region I

DISTRIBUTION: ~~SEE NEXT PAGE~~

SSD 94-25 SSSS-1F

DOCUMENT NAME: P:\SSSS\BORTOLOTT\BORTOLOTT.TAR

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure
"N" = No copy

OFFICE	SSSS	<input checked="" type="checkbox"/>	IMAB SB	<input type="checkbox"/>	OC/LFARB	<input checked="" type="checkbox"/>		
NAME	BSmith BS		SBaggett		GJackson ✓			
DATE	12/16/96		12/11/96		12/17/96 - 11/7/97			

OFFICIAL RECORD COPY

**BORTOLOTT
DAYBREAK**

C O R P O R A T I O N

License Fee and Debt Collection Branch
Office of the Controller
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

/ Mail Stop T-9 E 10

30 July 1996

Sirs.

I am puzzled by an overdue notice for annual fees dated 7/12/96 (and enclosed), sent without explanation. I had filled out and included the certification as a small entity, and consequently paid the maximum \$400 fee, as I have since the small entity fee concession was instituted. I also corrected the address, as I had the previous two years (and have done also in any correspondence with the NRC in that period, all without effect). This license is mine personally, and first issued in March 1977, before I started a corporation. I have used, as a mailing address only, Daybreak Nuclear and Medical Systems, Inc., where I am sole employee, and paid fees through this corporation since it has been my only source of income. In 1994, Bortolot Daybreak Corp. was founded for a number of of accounting and business reasons including accounting method, image, and pension/medical considerations. It subsumes all licensed activities that I do, and ever did operating as Daybreak Nuclear.

With total revenues less than \$50,000 last year, Bortolot Daybreak certainly qualifies as a small entity. I personally qualify. Daybreak Nuclear qualifies, and any combination qualify. Perhaps I should have paid with a personal check. Please advise.

Thank you for your consideration.

Sincerely yours,



Victor J. Bortolot, Ph.D.

enclosures.

P.S. On your 7/22/95 invoice the address was correct! Please make the correction back again. Also make sure this is entered into the NRC system as a whole - all mailings still have old address.

~~9612120077-960730~~
PDR ADOCK 03012440
C PDR