

030-12440

**DAYBREAK**

NUCLEAR AND MEDICAL SYSTEMS, INC.

U.S. Nuclear Regulatory Commission, Region I  
Nuclear Materials Safety Section B  
475 Allendale Road  
King of Prussia, PA 19406

20 March 1992

Dear sirs:

I am requesting renewal of my radioisotopes license 06-17253-01 in accordance with your letter of 2 January. Neither uses of the sealed sources in my possession, nor personnel, nor protection program need change at this time. Accordingly, I am enclosing a duplicate copy of my last application and supporting documents.

In the next year, due to an increase of business regarding authenticity dating of art objects, I intend to bring an additional, automated thermoluminescence measurement system on-line (Daybreak model 1100, brochure enclosed). To support this system, I will want to <sup>purchase</sup> an additional set of sources (alpha and beta sealed sources) that will be stored and used in irradiators similar to those I have already in use, but with improved shielding. I enclose as well drawings and specifications of the beta irradiator (a commercial design Daybreak has sold since 1979 in small quantities). The proposed alpha and beta irradiators will be placed over a sample changer (rotating wheel) and controlled by the computer which handles the automated TL system. In no way does this proposal represent a qualitative difference from my existing program, but simply a modest increase in the number of sources. This will enable me to increase productivity without bringing in personnel in addition to myself (I prefer to be the only one permitted to work with the sources, to keep control simple).

I am therefore enclosing a document detailing the two additional sources proposed for licensing, and details (including an exposure rate survey) on the beta irradiator for the proposed beta source.

I enclose a check for \$480, the fee for renewal of a license in fee category 3E.

Sincerely yours,

9701310174 920612  
PDR RC \*  
SSD PDR

Victor J. Bertolot, Ph.D.  
Technical Director

enclosures.

LOG	Apr. 5
Remit	3931
Amount	\$480
Pay to	3P
Revised	3/17/92
By	ML

116381

50 Denison Drive Guilford, CT 06437

(203) 453-3299

OFFICIAL RECORD COPY ML 10

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