

DL-020597-01



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

OFFICIAL RECORD COPY

The Applied Radiant Energy Corporation (ARECO)
ATTN: Dr. James J. Myron
Radiation Safety Officer
Venture Drive/Forest Commercial Center
P. O. Box 289
Forest, VA 24551

SUBJECT: RESPONSE TO LICENSEE CORRESPONDENCE CONCERNING LICENSE NO. 45-11496-01 (DEEMED TIMELY FILED 2/8/88) (REFERENCE: 252009; 030-07099)

Dear Dr. Myron:

This refers to your FAX dated January 30, 1997, concerning an operational issue involving your pool irradiator. After transfer of your WESF source capsules, we understand that you experienced an increase in product polymerization time, that may be due to insufficient temperatures in the pool water.

Your letter indicates that you have concluded that increasing the pool water temperature to 100 degrees F will provide better polymerization times without any significant influence on radiation shielding, pool water chemistry or sealed source integrity. Since your current source loading of 10,000 curies of cobalt 60 does not provide sufficient decay heat to accomplish the required increase in temperature, we understand that you are planning to heat the water in the external treatment loop by using a commercial electric heater, thereby raising the pool water temperature to the desired level.

We are aware that you have safely operated your irradiator during the time frame November 1986 through August 1996, with pool water temperatures of about 110 degrees F. During that time frame, the irradiator was loaded with 1.25 megacuries of cesium 137 which generated sufficient heat to maintain the desired water temperatures.

Since your license currently contains engineering controls and procedures to safely operate at the proposed temperature, we conclude that a license amendment is not required.

Even though a license amendment is not required for your current source loading, it is important that you document your criteria for heating of pool water for other source loadings applicable to your renewed license. This information should be included in your response to my letter of January 9, 1997 (Refer to Mail Control No. 252009).

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

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|----------------------------|------------------------------|
| To: <i>James J. Myron</i> | from: <i>Paul Houghton</i> |
| Dept./Agency: <i>ARECO</i> | Phone #: <i>404 270 6007</i> |

ARECO

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If have questions about this letter or your license, please call me at 404/331-5617.

Sincerely,

Earl G. Wright

Earl G. Wright
Senior License Reviewer
Division Nuclear Materials Safety

Docket No. 030-07099
License No. 45-11496-01

cc: Commonwealth of Virginia

EJW
2/2/97

**** Transmit Conf. Report ****

Feb 5 '97 13:54

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