



December 23, 1982

U.S. Nuclear Regulatory Commission
Region I
Office of Inspection and Enforcement
631 Park Avenue
King of Prussia, PA 19406

Attn: Laurence F. Friedman, PH.D., C.H.P.
Radiation Specialist

RE: License No. 29-13848-01

Dear Dr. Friedman:

During an extended plant shutdown which began October 20, 1982, an increase in Cobalt-60 concentration was noted in the irradiator pool on October 25, 1982.

In an effort to isolate the possibility of a leaking source, the sources in the pool were inventoried and leak tested beginning November 23, 1982. Prior to this period, decontamination procedures carried out by Chem-Nuclear personnel and INI personnel failed to reduce the water activity to a stable concentration below 5×10^{-5} microcuries/ml.

On December 21 during leak testing the Cobalt-60 sources, GE drawing 135C5605, it was noted that one source produced a smear survey of approximately .2 microcuries. Upon further examination, the source appeared to have evidence of a rupture in its encapsulation. The source identified is dated November, 1970 with an original activity of 2650 Ci. The current activity is 490 Ci.

The suspected source was placed into a stainless steel screw thread encapsulation 18" x 1" to isolate it. Water samples drawn from the confined encapsulation revealed corroborating evidence of the source being a confirmed leaker. Samples showed concentrations of 1.7×10^{-3} microcuries/ml with a background of 5.8×10^{-5} microcuries/ml. The identified leaky source will be removed from the pool by the storage cask and await disposition for re-encapsulation or eventual disposal by proper means.

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PDR FOIA
ROBINOW85-774 PDR

U.S. HIGHWAY 46 AND SCHLEY STREET, DOVER, NEW JERSEY 07801

INTERNATIONAL NUTRONICS, INC.

Dr. L. Friedman

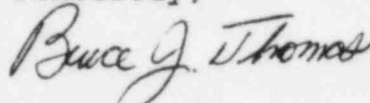
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Dec. 23, 1982

Further leak testing of all sources will be performed in an effort to locate any other leaking sources.

This notification is to clarify our telephone conversation of December 23, 1982 in which you were notified of our findings of December 21.

Sincerely,

A handwritten signature in cursive script that reads "Bruce J. Thomas".

Bruce J. Thomas
Plant Manager

BJT/bt