

DLR:IB:DAS

May 19, 1960

Mr. C. F. Leyse  
Chief, Nuclear Sciences and  
Engineering Department  
Research Division  
Curtiss-Wright Corporation  
Quehanna, Pennsylvania

Dear Mr. Leyse:

Thank you for your letter of April 18, 1960. Your suggestions for insuring the integrity of teletherapy sources are appreciated and are receiving serious consideration.

Sincerely yours,

James R. Mason, Chief  
Isotopes Branch  
Division of Licensing and  
Regulation

cc: Inspection Division, NYOO

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OFFICE ▶	DLR	DLR				
SURNAME ▶	DASmith/vjh	JRMason				
DATE ▶	5/19/60	5/19/60				

CURTISS-WRIGHT CORPORATION  
RESEARCH DIVISION  
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~~J.R.H.~~  
~~W.H.M.~~  
~~D.S.~~  
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April 18, 1960

Atomic Energy Commission  
Division of Licensing and Regulation  
Germantown, Maryland

Attention: Mr. James R. Mason

Gentlemen:

Ever since the 1958 Oak Ridge conference on teletherapy sources, which we attended, the Research Division of Curtiss-Wright Corporation has been designing, developing, and marketing radioactive sources for research and industrial applications. The source design and encapsulation techniques used by Curtiss-Wright have been based upon the AEC's sincere desire for maximum personnel safety, as outlined in their recommendations adopted at this meeting. Over the past two years, our experience in handling sources and source materials and our observations of current encapsulation practices have demonstrated the practicality of these recommendations.

At the recent Germantown meeting of March 28, 1960, the problem of leaky sources and the resultant health hazards were again discussed. Based on the results of a limited survey of existing sources and the fact that most sources in the field are of the old design, the need for closer monitoring of teletherapy equipment became apparent.

In view of the fact that the AEC recognized the potential health hazard associated with sources designed and built prior to 1958, and because all welded constructions with adequate leak testing can be economically marketed, Curtiss-Wright strongly urges the Commission to formally adopt their 1958 and 1960 recommendations, relative to teletherapy source design and testing, as an integral part of the licensing procedure.

To this end, the Research Division would like to offer the following recommendations and comments in the interests of the high standards of safety, sought and maintained by the AEC.

- 1. The welded teletherapy source design presented at the 1958 meeting should be adopted immediately as the standard basic design. Further, all sources should be leak tested by AEC approved methods.



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This recommendation reflects our conviction that an all-welded, leak tested teletherapy source of high integrity is the best insurance against leaky sources and their associated hazard potential.

2. All teletherapy encapsulators should be required to demonstrate their qualifications by submitting a welded teletherapy source "mock-up" and a leak testing procedure to the AEC for evaluation and approval. The "mock-up" should be certified as being welded remotely to simulate actual assembly conditions. This scheme is presently used by the Navy in their procurement of neutron sources for nuclear ships where high integrity is a requisite.

Curtiss-Wright believes that this recommendation will assure the AEC that it is licensing only those companies which have demonstrated their capabilities and real interest in maintaining high standards of safety.

As a source encapsulator, the Research Division is sympathetic with the AEC's concern with the problem of leaky teletherapy sources. Therefore, the comments expressed in this letter are submitted in appreciation of the fact that the AEC entrusts private industry not only with a tool for promoting science and technology but also a moral responsibility for maintaining the high standards of safety that are associated with the nuclear field.

Very truly yours,

CURTISS-WRIGHT CORPORATION  
RESEARCH DIVISION

  
C. F. Leyse

Chief, Nuclear Sciences and Engineering Dept.

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