

PRATT & WHITNEY AIRCRAFT GROUP

Manufacturing Division

East Hartford, Connecticut 06108

April 24, 1981

United States Nuclear Regulatory
Commission, Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Attention: Mr. John P. Kinneman, Chief,
Materials Radiological Protection Section,
Technical Inspection Branch

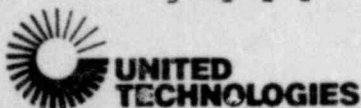
Subject: Docket Nos. 30-3796 and 30-3798

Gentlemen:

The first portion of this letter is in response to the alleged violation of our Radiography License No. 06-07522-05, Docket No. 30-3798, reported in your April 2, 1981 Notice of Violation arising from the February 26, 1981 inspection at our facility.

Attachment No. 6a of our application for renewal of our License No. 06-07522-05 dated August 25, 1978 provides for radiographic work to be conducted inside a shielded x-ray room and inside concrete jet engine test cells. This x-ray facility was designed and erected as a permanent x-ray facility and houses both a 2MeV, 1000 Rad/Min x-ray unit and 300KV x-ray unit. This x-ray facility was constructed to meet the requirements for an Exempt Protective Installation, defined by the National Bureau of Standards, Handbook 93, Safety Standards for Non-Medical X-Ray and Sealed Gamma-Ray Sources. All accessible areas of the facility are shielded with a minimum of eighteen inches of solid concrete, except for a three inch thick leaded door. The following is a summary of the last few years activity of each piece of equipment in the shielded x-ray facility:

300KV x-ray unit-operating use of approximately two hours per day for the last several years. 2MeV x-ray unit-operating use from January 2, 1979 to April 1, 1981 was 25.6 hours. Iridium 192 Sealed Source-no use in 1979; use on five days involving 70 exposures in 1980; use on seven days involving 21 exposures from January 1 to April 3, 1981. The use of the x-ray facility for radiography in the last 27 months occurred on twelve separate days; that is, in the last 27 months only during approximately 1.5% of the time was radiography performed in the x-ray facility.



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Under the definitions of 10CFR34.2(a), "Radiography" means the examination of the structure of the materials by non-destructive methods, utilizing sealed sources of by-product materials. Under 10CFR34.2(h), "Permanent radiographic installation" means a shielded installation or structure designed or intended for radiography and in which radiography is regularly performed.

We respectfully submit that our facility which was designed for the housing and operation of x-ray equipment, constructed to U. S. Government requirements for x-ray facilities and utilized to accommodate and operate the two pieces of x-ray equipment almost daily, did not lose its character as an x-ray facility through an occasional, intermittent and unrelated radiographic use of 1.5% and become a shielded installation or structure designed or intended for radiography. For these reasons we request your agreement that a visible signal and actuated alarm are not required under 10CFR34.29(b) for our facility.

The remainder of this letter is in response to the violation of our License No. 06-07522-02, Docket No. 30-3796.

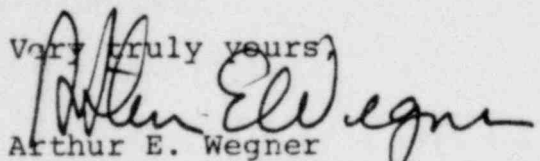
10CFR30.3 requires that we receive, possess and use by-product material only as authorized by our license. Condition 8.I. of our license limits our possession of Cadmium 109 to 15 millicuries.

Our records indicate our receipt of a 16.3 millicurie Cadmium source from New England Nuclear on March 24, 1980, although a 15 millicurie source had been ordered. The vendor has advised that manufacturing variations of +15% to -10% could be expected for a Cadmium 109 source and was probably the reason the source we received exceeded 15 millicuries.

To prevent a recurrence of this problem we propose to submit by May 15, 1981 an application to the U. S. Nuclear Regulatory Commission to amend condition 8.I. of our license to permit us to possess a maximum of 20 millicuries of Cadmium 109 per source. Full compliance will be effected upon approval of this amendment by the Division of Fuel Cycle and Material Safety Office of Nuclear Material Safety and Safeguards, U. S. Nuclear Regulatory Commission.

The information in this letter is furnished in response to Notice of Violation dated 2 April 1981, Docket Nos. 30-3796 and 30-3798, License Nos. 06-07522-02 and 06-07522-05, and is an affirmation pursuant to Section 182 of the Atomic Energy Act of 1954 that such information is true and correct to the best of our knowledge and belief.

Very truly yours,


Arthur E. Wegner
Executive Vice President