

UNITED STATES GOVERNMENT

Memorandum

TO : Files
THRU: Donald A. Nussbamer, Chief
Source and Special Nuclear Materials Branch

FROM : J. C. Delaney *JCD*

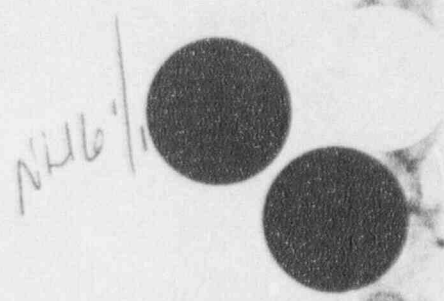
DATE: SEP 13 1962

SUBJECT: TERMINATION OF CLEVITE CORPORATION'S SPECIAL NUCLEAR MATERIAL
LICENSE SNM-183 - DOCKET NO. 70-133

By letter dated April 18, 1962, the licensee advised that since they had no specific plans for further work with enriched uranium they would withdraw their request for renewal of License SNM-183 (expiration date, March 31, 1962, but still in effect as a result of timely renewal application filed March 14, 1962). The April 18, 1962 letter further requested that the license expiration date be extended to July 31, 1962, to complete decontamination of the area and equipment and to transfer contaminated materials and equipment to an approved disposal agency. By letter of May 28, 1962, the license was amended to expire August 31, 1962, with the additional requirement that at least fifteen days prior to vacating the facility, or to using it for any purpose other than authorized under the license, or prior to August 15, 1962, whichever was earliest, the licensee was to submit to us a report indicating the levels of fixed and removable uranium contamination existing in the facilities. Suggested maximum levels of contamination based on those currently suggested by Mr. Rogers' office for inclusion in the regulations were provided to Clevite.

By letter dated August 14, 1962, Clevite reported the residual levels of uranium contamination after completion of the decontamination. At our request Division of Compliance inspected Clevite on August 30, 1962, to determine the validity of the values provided by Clevite to AEC and to generally check on the efficiency of the decontamination. The attached table shows a comparison of AEC suggested maximum limits, Clevite measured values after decontamination, and results of independent measurements made by AEC inspectors and analyzed at Argonne National Laboratory. A copy of the correspondence from Division of Compliance including a copy of the detailed Clevite survey report is also attached. As shown in the table, Clevite's measured limits are all below our suggested limits, and further, in most cases, they are of the order of a factor of ten lower. Further, the checks made by Division of Compliance indicates that Clevite's reported levels of removable activity are accurate, or, at least, conservative.

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have accordingly prepared for signature of the director, a letter advising Cleve that the quantity of special nuclear material present as contamination is insignificant with respect to the licensing requirements of the Act and Part 70 and that accordingly, no license is required for any person to receive, possess, use or transfer the facilities and equipment.

COMPARISON OF SUGGESTED AND REPORTED CONTAMINATION LEVELS

<u>Alpha Activity</u>	<u>AEC Suggested Maximum Limits</u>	<u>Clevite Manual Levels</u>	<u>Division of Compliance Checks (removable only)</u>
1. Peak fixed	25,000 d/m/100 cm ² *	3850 d/m/100 cm ²	
2. Average fixed	5,000 d/m/100 cm ²	178 d/m/100 cm ²	
3. Maximum removable	1,000 d/m/100 cm ²	33 d/m/100 cm ²	5-34 d/m/100 cm ²
<u>Beta and Gamma Activity</u>			
1. Maximum fixed at 1 cm.	1.0 millirad/hr	0.14 millirad/hr	
2. Average fixed at 1 cm.	0.2 millirad/hr	0.03 millirad/hr	
3. Maximum removable	1000 d/m/100 cm ²	208 d/m/100 cm ²	0-100 d/m/100 cm ²

*25,000 d/m/100 cm² is about equivalent to 160 micrograms of 93% enriched uranium per 15.5 square inches of surface area.

- c. 1,000 d/m/100cm² maximum removable by wiping the area with a dry filter paper or soft-absorbent paper.

These limits are those contained in a proposed revision to 10 CFR, Parts 20, 40, and 70 for natural or depleted uranium, natural thorium, uranium enriched in the U-235 isotope, U-238 or Th-232. These are also the limits provided to Union Carbide Corporation by letter of May 10, 1952, in which you concurred, in connection with the release of properties, buildings and equipment at the "old" mill at Rifle, Colorado, and their ore concentrator at Green River, Utah.

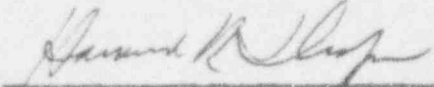
This action was based upon a memorandum from Gerald Charnoff, OGC, to Harold L. Price dated January 26, 1959, in which it was concluded that radioactive contamination on various items of equipment, including both source material and special nuclear material, could be considered de minimus. In such circumstances it was decided that the radioactive material involved was not special nuclear material within the meaning of the Atomic Energy Act and accordingly was not required to be licensed. This action was in accordance with Manual Chapter 5182, dated August 30, 1956, and earlier actions of the Commission referred to in the 1/26/59 memo.

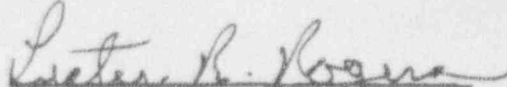
The only question presented in this instance is whether or not we should inferentially define de minimus quantities of SNM and source material in terms of levels of fixed and removable uranium contamination. This position follows that taken in the past in Manual Chapter 5182. Furthermore, it is consistent with the proposed amendment to the Part 70. Accordingly, we believe the proposed action represents the correct interpretation.

It should be noted that Clevite and other source and special nuclear material licensees may not wish to renew their licenses and may very well wish to transfer equipment to other persons.

In accordance with the conversations between you, Mr. Lowenstein and Mr. Connor, we have changed the Clevite letter to reflect an informal, ad hoc approach.

Attachments:
as stated


Office of the General Counsel


Assistant Director for
Materials Standards