

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

April 24, 1970

70-820

UNITED NUCLEAR CORP.

Gentlemen:

In our letter dated February 4, 1970, we proposed to modify your special nuclear material license by deleting the existing condition 3.1 and adding a superseding condition 3.1, as well as adding a new condition 7.3 to the safeguards amendment to your license. We offered a thirty-day period in which to receive comments before taking action to modify your license.

After consideration of the comments received during the comment period, we have made some modifications to the two proposed conditions. We now propose to modify the safeguards amendment to your special nuclear material license by deleting the existing Condition 3.1 and adding the following:

"3.1. The licensee shall determine the U-235, U-233, and/or Pu content of all receipts, shipments, intentional discards and material inventoried, along with the limits of error associated with these quantities. The licensee shall make sufficient measurements to substantiate the stated quantities and associated limits of error. Measurements are not required on items which have been determined by other means to contain less than ten (10) grams U-235, U-233, and/or Pu each. Limits of error as used herein means the boundaries within which the true or best value of the parameter being measured lies with a probability of 95%."

The objective of Condition 3.1 and related conditions, is to require licensees to state the quantities of U-235, U-233, and/or Pu which they have received, shipped, discarded, and which they hold on inventory, and to be able to show the validity of these quantities by having made measurements which will not only substantiate the quantities, but will establish the degree of uncertainty associated with them. Thus, it is not necessary for a complete weight determination, chemical analysis, and isotopic determination to be made on each item,

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if other information is available to ascertain the U-235, U-233, and/or Pu content and the associated limits of error. The condition does require that sufficient measurements be made to substantiate the stated quantities and associated limits of error.

We recognize that it may not be feasible to make measurements to substantiate quantities and limits of error in the case of items containing small quantities of special nuclear material and items such as sealed sources that cannot be measured without destroying their usefulness. In such instances, limits of error may be estimated.

In order to provide the AEC with a timely notification of the MUF which has been determined during the month as a result of completing a material balance around a single operation, a number of operations, or the entire plant, and to report material intentionally discarded during the month, we believe that the safeguards amendment to your special nuclear material license should be modified by adding a new Condition 7.3 as follows:

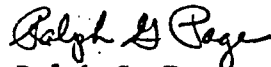
"7.3. The licensee shall report on a monthly basis all intentional discards and material unaccounted for. The MUF shall be that which has been determined during the month as a result of completing a material balance around a single operation, a number of operations, or the entire plant. This report shall be made within fifteen (15) days after the end of the month in which the discard was made or the material unaccounted for was determined. Reports shall be sent to the U.S. Atomic Energy Commission, Division of Nuclear Materials Safeguards, (appropriate District Safeguards Office). Each report shall be identified by the Reporting Identification Symbol(s) (RIS) assigned to the licensed operations and shall include a statement of the nature of the discards, the probable reasons for the MUF and any actions taken or planned with respect to the MUF."

These reports will be used solely for safeguards purposes. The information provided under Condition 7.3 will not be used for billing licensees under AEC lease agreements.

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This notice is sent to you so that, prior to the institution of formal proceedings for modification of the license, you may have an opportunity to comment on these changes. If you are willing to have these conditions added to your license without the issuance of a formal order, please so advise us within thirty days from the date of this notice. If we do not receive your consent, formal action will be instituted to modify your license.

Sincerely,



Ralph G. Page
Acting Director
Division of Nuclear
Materials Safeguards