JUN 1 1 1975

SG:WGB
70-687

Union Carbide Corporation
Sterling Forest Research Center
ATTN: Mr. James J. McGovern, Manager
Radiochemical Production
P. O. Box 324
Tuxedo, New York 10987

Gentlemen:

We have reviewed the fundamental nuclear material control plan for the Sterling Forest Research Center of Union Carbide that you submitted with your letter dated January 24, 1975.

Our review has identified a number of requirements of 10 CFR 70.58 which are not adequately addressed or were omitted in your submitted plan. The enclosure to this letter describes the points in your plan which must be clarified or strengthened to meet the regulations. These topics were discussed in detail with you and representatives of your staff during your visit to Bethesda on May 20, 1975. Enclosure three of the general letter sent to licensees on November 15, 1974 was used as the basis for determining the completeness of your control plan.

We request that you submit your reply to the topics presented in the enclosure by July 2, 1975. It is imperative that we receive the supplement to your control plan by the requested date so that we may complete our review of your plan on schedule. If we do not receive your reply by the indicated date it may be necessary for us to supplement your control plan with amendments to your license.

Any request for an exception from a specific requirement in the regulations must be submitted separately from the fundamental nuclear material control plan in a manner suitable for public disclosure. A detailed justification must be presented for each such request and an alternative method for achieving an acceptable level of control by other means must be proposed. The details of the alternative methods should be prepared as an enclosure so that these may be withheld from public disclosure.

OFFICE ➤						
SURNAME ➤						
DATE ➤						

It has been established that the enclosure to your letter contains information of a type specified in 10 CFR 2.790(d). Accordingly, pursuant to Section 2.790(d), your accountability plan is deemed to be commercial or financial information within the meaning of 10 CFR 9.5(a)(4) and shall be subject to disclosure only in accordance with the provisions of 10 CFR 9.12.

Sincerely,

R. G. Page, Acting Director
Division of Safeguards

Enclosure:
Request for additional information

DISTRIBUTION:
PDR
Docket File
Case File
NMSS r/f
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JGWhiteaker, I&E
RJJones, SD
LCRouse
Region I - WMartin

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SURNAME	WGBrowne/car	LFWirfs	RGPage			
DATE	6/9/75	6/10/75	6/ /75			

ENCLOSURE

Request for Additional Information to the
Fundamental Nuclear Material Control Plan for Union Carbide Corporation

1.1.1 With reference to the positions shown in the corporate organization chart, describe the assignment of any specific corporate responsibilities for SNM control and accounting at the Sterling Forest Laboratory.

1.1.1.1 Include descriptions for SNM custodians and positions responsible for SNM accounting, measurement quality assurance, receiving and shipping, physical inventory and statistics.

1.1.1.4 The specific authority and responsibilities for SNM control and accounting should be described for each position covered in section 1.1.1.1. The descriptions should indicate to what extent the individuals are responsible for the assigned functions, such as development and revision of procedures, conduct of the work, monitoring of performance, preparation of SNM records, investigation of anomalies, etc.

Specify the minimum qualifications of each position in terms of education, training, or years of experience in a similar or parallel work assignment.

1.1.2.1 List the designated custodian for each MBA and ICA by position title.

1.1.2.2 Pursuant to the requirements in 10 CFR 70.58(b)(2), explain how the assignment of material control and accounting functions provide for a separation of functions so that the activities of one individual or organizational unit serve as controls over and checks of the activities of other individuals or units. There must be a clearly defined separation of responsibilities between the following:

a. Control functions and operating functions.

b. SNM custody and accounting.

c. SNM measurements and accounting.

d. Auditing and the functions being audited.

Specific reference to the above separations should be made in the explanation.

1.3 Describe what briefings will be given to the professional staff members on Part 70 regulations and the safeguards license conditions, and what training will be provided persons who have direct or related responsibilities in the nuclear materials control program or accounting system. Describe the criteria that will be used to evaluate the effectiveness of the training program, and the records that will be prepared and maintained on the briefings, training and retraining programs. Affirm that at least 16 hours of training will be provided each year, and that attendance will be documented and records retained for a minimum of two years. In addition, indicate that each new employee who works with SNM will be given two weeks of on-the-job training under the direction of a senior technician or supervisor.

2.1.2.1 The physical boundaries of the process areas and the MBA's or ICA's must be clearly defined to assure that SNM is only found in one MBA or ICA at a time. An expanded word description or a clarification of Figures C and D is needed for the required definition. For a detailed discussion on this subject, please refer to Regulatory Guide 5.26.

3.1 NRC's Region I Office has reported that because of problems with the analysis (subsections 3.6.1 and 3.7.6) of fission product bearing waste, you have changed to an ASTM delayed neutron activation technique. If there were changes in your measurement system, make the necessary corrections to subsections 3.1, 3.4.2, 3.6.1, 3.7.6, and 7.6.2.

3.3.2 and 3.3.3 The term "calibrated vessels" needs clarification and discussion to show what the volume measurement technique is that you use. Reference to paragraphs 3.7.2(b) and (c) might be pertinent.

3.8 Affirm that the SNM measurement procedures manual has been prepared, approved by the Nuclear Safeguards Committee and the responsible managers, and that it is available for use.

6.1.1 Indicate that internal transfer documents will be used to document transfers between MBA's and ICA's. Documents for the transfer of SNM between MBA's or ICA's, must be uniquely and serially numbered, and each completed transfer document must be signed and promptly sent to the accounting group. The use of log books in your transfers does not appear to provide a record which can be sent to the accounting group. Clarification of this system should be provided, based on the need for sending transfer documents to the accounting group.

6.1.4 Affirm that adjustments affecting prior inventory periods will be made in a manner which will permit those adjustments to be distinguished from current period MUF.

6.2.2 Affirm that all records will be retained for at least five years.

7.1.1 In addition to the weight check of UO_2, it is important to determine promptly whether the shipping containers actually contain the U-235 that was ordered. In accordance with the criteria presented in Regulatory Guide 5.28, describe the measures which will be implemented to verify the accuracy of material receipts within 24 hours of arrival. Explain the methods which will be utilized to assure that material in the shipping containers is actually the uranium identified on the shipping form.

Indicate how long it is from the time that the shipment is received at the Laboratory until the analysis results for total U and U-235 content are reported.

7.2 Provide assurance that SNM will be measured at either the point of shipment or the point of receipt for material transferred between MBA's and ICA's.

Indicate that the same person will not sign the transfer form as both the shipper and the receiver.

7.3.4 In accordance with the guidance provided during the meeting in Bethesda, describe procedures for maintaining perpetual inventory records of all containers and items of high enriched uranium in storage, and procedures whereby each container and item in storage will be inventoried and reconciled daily by item check.

8.1 Affirm that the approval of the procedures will be in writing and that any amendments to the existing procedures will go through the same approval procedure system as the original procedure. Approval of the supervisory or management position that is directly responsible for the operation covered by the procedure should also be indicated.

8.2.1.2 Does the Nuclear Safeguards Committee initiate the corrective action, or do they recommend action to some staff position or to the General Manager, Clinical Diagnostics? Specify that a report will be prepared and appended to the audit report which shows what corrective actions were instituted and when the corrective actions were completed. Provide assurance that serious deficiencies discovered during the audit will be reported and investigated immediately.

8.2.3 How do you define the term "significant differences"? Is your definition consistent with 10 CFR 70.58(g)(3) which requires the investigation of differences that are greater than 50 grams of U-235? Please explain.

Appendix A

1.0 There does not seem to be any "Figure 5" that you reference.

5b Explain where the items are on Figure D, or revise Figure D to specifically show the items.

7.0 Clarify the description so that the items can be located on Figure D.

8.0 Figure L should be referenced in the discussion and the distances mentioned in the discussion should be shown on Figure L.