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MAY 28 1957

S. R. Sapirle, Manager, Oak Ridge Operations

X-RAY EXPOSURE

SYMBOL: ORB:CSS

Reference is made to your memoranda dated November 27, 1956, symbol BM:CLD, and December 27, 1956, symbol BMM:HDB, subject as above, with regard to our initiating pilot studies at Oak Ridge on records of diagnostic X-ray exposure.

As noted in our communication to you on December 13, 1956, preliminary discussions with Oak Ridge Community Hospital indicate records may be examined there whenever a competent survey team is assembled. On January 16, 1957, we wrote the Union Carbide Nuclear Company on this matter, suggesting a preliminary pilot study of Carbide records might set a pattern and help determine man-power requirements and costs before turning to the 30,000-35,000 records that Dr. Robert P. Ball has assembled at the Hospital.

We are in receipt of a letter from the Union Carbide Nuclear Company under date of May 9, 1957, three copies of which we enclose, with an accompanying outline on standard methods recommended for estimating medical exposure prepared by a committee of the International Commission on Radiation Protection.

Oak Ridge National Laboratory has already undertaken determinations of the average skin dose and gonad dose received from typical diagnostic X-ray procedures at eight installations. Carbide is prepared to review its records at its four installations and make determinations of the average dose for their personnel.

Meanwhile, prior to proceeding on further studies of exposure Carbide calls our attention to the enclosed report of ICRP adopted as a statement of recommended standard sampling procedures, a program developed under chairmanship of Dr. Karl Z. Morgan of ORNL. It is proposed that the ICRP recommended survey methods be adapted to presurveys on a pilot scale in order to evaluate sampling methods and data selection. Carbide would like to apply appropriate parts of the ICRP sampling procedures to cover its own records and those

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of the Oak Ridge Community Hospital in pilot surveys. We feel that ORNL has personnel to successfully perform this task and secure worthwhile results. Their study of Oak Ridge over-all records could well constitute a fundamental contribution of broad interest to the Commission and simultaneously place the recommended standard methods on a firm footing.

No estimate of costs has been arrived at for a pilot survey of this nature. If the plan presented meets with your approval, we will authorize Carbide to proceed with development of detailed plans and cost estimates. Your comments will be appreciated.

ORIGINAL SIGNED BY

E. A. WENDE

for S. R. Sapirie

Enclosure:

Ltr CEC to SRS dtd 5/9/57, (trip).

CC: E. J. Bloch, Wash.
F. W. Ford
N. A. Shearon
N. H. Woodruff
H. M. Roth

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