

INTERIM REPORT

ACCESSION NO. 7909240670

ORNL/HASRD- 48

Contract Program or Project Title: Assessment of the Radiation Doses Resulting from Releases of Radon-222 and Radium-226 from Uranium Mining and Milling Activities

Subject of this Document: Technical Progress

Type of Document: Monthly Progress Report
July 1979

Author(s), Affiliation and Address: C. C. Travis, L. M. McDowell-Boyer, and A. P. Watson
Health and Safety Research Division*

Date of Document: August 25, 1979

NRC Individual and NRC Office or Division to Whom Inquiries Should be Addressed: Dr. H. Miller
Low-Level Waste Branch
Division of Fuel Cycle and
Material Safety

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Prepared for
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555
Under Interagency Agreement DOE #40-549-75
NRC FIN No. B0281

*Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830
operated by
Union Carbide Corporation
for the
U. S. Department of Energy

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NRC Research and Technical
INTERIM REPORT
Assistance Report

MONTHLY PROGRESS REPORT
FOR JULY 1979

ASSESSMENT OF THE RADIATION DOSES RESULTING FROM RELEASES OF
RADON-222 AND RADIUM-226 FROM URANIUM MINING AND MILLING ACTIVITIES
(189 No. B0281)

Health and Safety Research Division
Oak Ridge National Laboratory

PRINCIPAL SCIENTISTS: C. C. Travis, L. M. McDowell-Boyer, A. P. Watson

OBJECTIVE:

The principal objective of this assessment is to provide estimates of integrated population exposure and resultant dose to American, Canadian, and Mexican populations which would result from releases of radon-222 from uranium mining and milling activities in the western United States. A continental transport, diffusion, and deposition model developed by the National Oceanic and Atmospheric Agency (NOAA) will be utilized in conjunction with available population and food production data to develop best-estimate population exposures and doses. Estimates will be made on the basis of a unit release rate of radon-222 from Grants, New Mexico; Falls City, Texas; Caspar, Wyoming; and Wellpinit, Washington.

TECHNICAL PROGRESS:

A first draft of an open literature publication entitled "A Review of Parameters Describing Terrestrial Food-Chain Transport of ^{210}Pb and ^{226}Ra ," has been prepared for publication in Nuclear Safety.

A presentation was made at the 24th Annual Meeting of the Health Physics Society entitled "Estimated ^{210}Pb Ingestion Exposure and Dose Associated with ^{222}Rn Releases From Generic Uranium Milling Sites."

Preparation for participation in public meetings on the GEIS on uranium milling is ongoing.

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BUDGET AND TECHNICAL MANPOWER EXPENDITURES (FY 1979)

<u>Reporting Period</u>	<u>Project Costs, \$</u>	<u>Technical Support, Man-months</u>
July 1979	9,736	2.0
Total to Date	151,936	31.5
Estimated Cost to Completion	25,046	5.0

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