

INTERIM REPORT

ACCESSION NO. \_\_\_\_\_  
ORNL/HASRD-38

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  
April 1979

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Date of Document: May 20, 1979

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Division of Fuel Cycle and Material Safety

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This document was prepared primarily for preliminary or internal use. It has not received full review and approval. Since there may be substantive changes, this document should not be considered final.

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Washington, D.C. 20555  
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operated by  
Union Carbide Corporation  
for the  
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INTERIM REPORT

NRC Research and Technical  
Assistance Report

MONTHLY PROGRESS REPORT  
FOR APRIL 1979

ASSESSMENT OF THE RADIATION DOSES RESULTING FROM RELEASES OF  
RADON-222 AND RADIUM-226 FROM URANIUM MINING AND MILLING ACTIVITIES  
(189 No. 50281)

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:

The first draft of a open literature publication entitled "Natural and Technologically Enhanced Sources of Radon-222," has been prepared for publication in *Nuclear Safety*.

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,<br/>Man-months</u> |
|---------------------------------|--------------------------|--|
| April 1979                      | 3,200 (estimate*)        | 0.5                                      |
| Total to Date                   | 130,048                  | 27.0                                     |
| Estimated Cost to<br>Completion | 46,800                   | 9.5                                      |

\*Exact cost will be given in monthly progress report for May 1979.

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