Item B-28: Radionuclide/Sediment Transport Program

DESCRIPTION

As a result of Appendix I and the Liquid Pathway Generic Study, the staff has had to take a more realistic look at the effects of sediment (surface waters) and aquifer materials (groundwater) on radionuclide transport through the hydrosphere. To accomplish this objective, it is necessary that the staff have available for its use radionuclide/sediment transport models that have been field-verified. This NUREG-0471[1] task will accomplish this objective through model development and verification in the five following areas:

(1) Radionuclide/Sediment Transport Model (Non-Tidal Rivers) (2) Radionuclide/Sediment Transport Model (Tidal Rivers, Estuaries, Oceans, and Large Lakes) (3) Unified Transport Model Utilization (4) Development of Design Curves for Parameters Needed in Models of Radionuclide Transport in Groundwater Systems (5) Three- Dimensional Multiaquifer Radionuclide Transport Model.

CONCLUSION

Work completed on this item was published in NUREG/CR-2423[2] which provides a model to simulate radionuclide transport in estuaries.[3] Thus, this Environmental issue has been resolved.

[1] NUREG-0471, "Generic Task Problem Descriptions (Categories B, C, and D)," U.S. Nuclear Regulatory Commission, June 1978.
[2] NUREG/CR-2423, "Mathematical Simulation of Sediment and Radionuclide Transport in Estuaries," U.S. Nuclear Regulatory Commission, November 1982.
[3] Memorandum for T. Speis from J. Funches, "Prioritization of Generic Issues—Environmental and Licensing Improvements," February 24, 1983. [8303090540]