

PACKAGE ID - 000308IBMPC00 TRITMOD

KWIC TITLE - Advection Model of Tritium Dispersion

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LIMITATION CODE -UNL **AUDIENCE CODE** - UNL

COMPLETION DATE - 01/01/1987 **PUBLICATION DATE** - 12/07/1978

DESCRIPTION - TRITMOD is a steady-state advection model of tritium dispersion and cycling in underlying vegetation and soil from an atmospheric point source. Radial geometry is assumed. Tritium is assumed to be released to the atmosphere in both gaseous tritiated hydrogen and tritiated water vapor form. The PC version contains a preprocessor, TRITFST, which allows the user to view the parameters used as model input data and to change any one of them, if desired.

PACKAGE CONTENTS - NESC Note; Software Abstract; Sample Output (4 pages); DP-MS-78-25; Media Includes Source, Executable, Sample Problem, Auxiliary Program, Machine Readable Documentation, Control Information;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 5.25 Diskette

METHOD OF SOLUTION - The steady-state dispersion equation is solved iteratively by integration from the furthest distance from the source back to the source.

COMPUTER - IBM PC

OPERATING SYSTEMS - DOS 3.1

PROGRAMMING LANGUAGES - BASIC

SOFTWARE LIMITATIONS - Steady-state conditions and radial geometry are assumed.

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - TRITMOD takes into account the deposition of HT and the conversion of HT to HTO.

TIME REQUIREMENTS - Running time is dependent on the radius of interest. The sample problem required 30 seconds on an IBM PC/AT using the compiled BASIC TRITMOD program; 4.5 minutes are required when run from the TRITMOD BASIC source.

REFERENCES - C.E. Murphy, Jr., and M.M. Pendergast, Environmental Transport and Cycling of Tritium in the Vicinity of Atmospheric

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REFERENCES - (CONT) Releases, IAEA/NEA International Symposium on the Behavior of Tritium in the Environment, San Francisco, October 16-20, 1978\ DP-MS-78-25 (IAEA-SM-232/80), 1978; TRITMOD, NESC No. 814.PC, TRITMOD IBM PC Version Flexible Disk Cartridge Description; System/360 Continuous System Modeling Program User's Manual, International Business Machines Corporation, White Plains, New York.

ABSTRACT STATUS - Abstract first distributed January 1979. IBM PC version submitted January 1987, sample problem executed by NESC February 1987 on an IBM PC/AT.

SUBJECT CLASS CODE - R

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
T CODES
ENVIRONMENTAL TRANSPORT
TRITIUM
DISPERSIONS
DEPOSITION
SIMULATION
ADVECTION
ITERATIVE METHODS
BASIC

EDB SUBJECT CATEGORIES -

990200 540230 540130

SPONSOR - DOE/EH

PACKAGE TYPE - TESTED