

PACKAGE ID - 001257IBMPC00 KBERT

KWIC TITLE - Knowledge Based Estimation of Material Release
Transients

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 07/01/1995 **PUBLICATION DATE** - 07/01/1995

DESCRIPTION - KBERT is an easy to use desktop decision support tool for estimating public and in-facility worker doses and consequences of radioactive material releases in non-reactort nuclear facilities. It automatically calculates release and respirable fractions based on published handbook data, and calculates material transport concurrently with personnel evacuation simulations. Any facility layout can be modeled easily using the intuitive graphical user interface.

PACKAGE CONTENTS - Media Directory; Software Abstract; SAND95-1324;
Media Includes Source Code, Executable Module, Auxiliary Material,
User's Guide, Sample Problem Input Data, Installation Instructions;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - The lumped parameter method is used to describe inter-room flows and material distributions. Object oriented design was used to construct the code and to keep track of all data structures. First order explicit equatuions are used throughout KBERT to model nuclide decay and personnel doses.

COMPUTER - IBM PC

OPERATING SYSTEMS - IBM PC running Windows 95 or later, or Windows NT
4.0 or later

PROGRAMMING LANGUAGES - C

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SOFTWARE LIMITATIONS - KBERT requires the use of another code, CONTAIN, available upon request from the U.S. Nuclear Regulatory Commission (NRC) to calculate flows between rooms. KBERT is also limited to the resolution of the lumped parameter treatment.

SOURCE CODE AVAILABLE (Y/N) - Y

RELATED SOFTWARE - KBERT uses the CONTAIN code to calculate flows. While CONTAIN is not an integral part of KBERT, if present, KBERT will automatically use CONTAIN appropriately to generate flow information.

HARDWARE REQS - IBM PC Pentium 133 or faster, 32 MB RAM or more, 200 MB hard disk space, 1024 X 768 SVGA video card and monitor or better, CD-ROM drive for installation.

REFERENCES - D.S. Browitt, K.E. Washington, D.A. Powers, D.K. Monroe, and T.J. Heames, User's Guide for the KBERT1.0 Code, July 1995.

ABSTRACT STATUS - Released AS-IS 2/4/1999

SUBJECT CLASS CODE - G

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
K CODES
FISSION PRODUCT RELEASE
RADIATION DOSES
RADIATION PROTECTION

EDB SUBJECT CATEGORIES -
990200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS