

PACKAGE ID - 000581IBMPC01 APS1.2

KWIC TITLE - Costs of Building Waste Facilities; Price Per
Shipment to Recoup Costs

AUTHORS - Smith, P.
EG and G Idaho, Idaho Falls, ID (United States)

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

COMPLETION DATE - 09/03/1993 **PUBLICATION DATE** - 09/03/1993

DESCRIPTION - The Automated Pricing Schedule is a computer model for evaluating the economics of developing, operating, and closing a low-level radioactive waste disposal site. It provides pricing for individual shipments based on the characteristics of the shipment, and calculates a disposal fee to be charged for each shipment to recover the costs of the facility. It includes a sensitivity analysis module to evaluate the effect of varying the parameters of the model.

PACKAGE CONTENTS - Media Directory; Software Abstract; Media Includes User's Guide, Executable Module, Sample Problem Input;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - The model uses annual default costs for each technology type to predict pre-operation, operating, and closure costs. Most calculations are sums, with the net present value calculation used to predict future costs.

COMPUTER - IBM PC

OPERATING SYSTEMS - MS-DOS 5.0, PKZIP 2.046 used to compress and uncompress files.

PROGRAMMING LANGUAGES - Modula-2

SOFTWARE LIMITATIONS - Single user system, math coprocessor necessary.

SOURCE CODE AVAILABLE (Y/N) - N

UNIQUE FEATURES - Function key driven system; no software needed other than that included on the installation diskette; provides models for six waste management technologies; allows users to add surcharges to individual shipments; generates a disposal fee based on volume, radionuclide curies, waste type, and generator size.

RELATED SOFTWARE - This software is based on an earlier mainframe ECON model but includes additional functionality. An informal distribution of the ECON model for the PC was made in March 1989.

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RELATED SOFTWARE - (CONT) APS is a corrected and enhanced ECON model.

OTHER PROG/OPER SYS INFO - Calls to M2SAGE, a library of reusable Modula-2 code, represent approximately 33 percent of the code. .EXE indicates executable modules, .DFL indicates the data dictionary, .DAT and .IDX indicate the data and index files, .DOC indicates user manual documentation. PKZIP 2.046 used to compress/uncompress files. APS.DOC is the user manual. It was created using Word Perfect 5.1. It is intended for print out to an Hewlett Packard Laser-Jet III or better with fully scalable fonts.

HARDWARE REQS - Approximately 1.75 MB of disk space are needed for installation with approximately 1.5 MB needed for operation of the APS system. Each new data set requires approximately 8K of disk space. The system will run with 400K of memory. The CONFIG.SYS file must include the following line:
DEVICE=C:[backslash]DOS[backslash]ANSI.SYS.

TIME REQUIREMENTS - Times based on an IBM PS/2 Model 70 running MS-DOS 5.0. A user familiar with the system can create a new data set and modify all default values in approximately 15 minutes. A sensitivity analysis can be performed on any of the available parameters of a data set in approximately 10 seconds. A complete set of reports (total of 9 reports) can be run on an existing data set in under a minute.

REFERENCES - Automated Pricing Schedule Version 1.1 User's Manual, DOE/LLW-97 Version 1.1, May 1993\ Economics User's Manual, DOE/LLW-97, March 90.

ABSTRACT STATUS - Submitted September 1993. Readied AS-IS September 23, 1993.

SUBJECT CLASS CODE - M

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
A CODES
RADIOACTIVE WASTE FACILITIES
RADIOACTIVE WASTE DISPOSAL
SENSITIVITY ANALYSIS
PRICES
COST
COMPUTER CALCULATIONS
COST BENEFIT ANALYSIS
ECONOMIC ANALYSIS
GROUND DISPOSAL
LOW-LEVEL RADIOACTIVE WASTES
RADIOACTIVE WASTE STORAGE
UNDERGROUND STORAGE
WASTE MANAGEMENT

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SOFTWARE ABSTRACT

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COST ESTIMATION
ECONOMICS
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RADIOACTIVE WASTE MANAGEMENT
RADIOISOTOPES
UNDERGROUND DISPOSAL

EDB SUBJECT CATEGORIES -
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SPONSOR - DOE/IO

PACKAGE TYPE - AS - IS