

**PACKAGE ID** - 000606IBMPC00 HMSII

**KWIC TITLE** - Holdup Measurement System II

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

**COMPLETION DATE** - 05/01/1993   **PUBLICATION DATE** - 05/01/1993

**DESCRIPTION** - HMSII is a database management package for doing Holdup Measurements. It is based on the principles taught in the U.S. Department of Energy Safeguards Technology Training Program, Nondestructive Assay of Special Nuclear Materials Holdup. It was developed as a joint effort between Los Alamos National Laboratory and the Oak Ridge Y-12 Plant, managed for the U.S. Department of Energy by Martin Marietta Energy Systems, Inc. It is also designed assuming the use of a low resolution detector measuring Uranium or Plutonium.

**PACKAGE CONTENTS** - Media Directory; Software Abstract; Y/MA-37-7210;  
Media Includes Source Code, Sample Problem Input Data;

**SOURCE CODE INCLUDED?** - Yes

**MEDIA QUANTITY** - 1 3.5 Diskette

**COMPUTER** - IBM PC

**OPERATING SYSTEMS** - DOS

**PROGRAMMING LANGUAGES** - dBASE IV

**SOURCE CODE AVAILABLE (Y/N)** - Y

**UNIQUE FEATURES** - The primary advantage of using the HMSII software is the complete integration of all the elements of holdup measurements. It controls hardware setup, calibration. measurement control, data collection, analysis, and archival for an almost infinite number of measurement points. The data can easily be retrieved for trending studies or plotted over time. The software provides a complete holdup data management system.

**OTHER PROG/OPER SYS INFO** - The system was designed specifically for a Davidson (or ORTEC) Portable Multichannel Analyzer or the new Miniature Modular MultiChannel Analyzer under development at Los Alamos National Laboratory. Another important hardware component of the system is a Intermec 9440 Portable Bar Code Reader (also called a DataLogger or a Transaction Manager). The 9440 is programmable and controls all the aspects of field holdup data collection from the MCAs.

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**OTHER PROG/OPER SYS INFO - (CONT)**

**HARDWARE REQS** - HMSII is designed to run on any 286 or higher PC with 640 Kb of memory. The PC must have a C: hard drive (>40 Mb) or equivalent (e.g., a Bernoulli drive).

**REFERENCES** - Steven E. Smith, Holdup Measurement System II (HMSII) version 1.0, Y/MA-37-7210, May 1993.

**ABSTRACT STATUS** - Submitted September 1993. Released screened September 13, 1993.

**SUBJECT CLASS CODE** - DM

**KEYWORDS** -

COMPUTER PROGRAM DOCUMENTATION  
H CODES  
DATA BASE MANAGEMENT  
NUCLEAR MATERIALS MANAGEMENT  
MULTI-CHANNEL ANALYZERS  
DATA  
CALIBRATION

**EDB SUBJECT CATEGORIES** -

990200 055000 990301

**SPONSOR** - DOE/ER

**PACKAGE TYPE** - SCREENED