

**RISK-BASED DECISION
MAKING FOR PETROLEUM
RELEASES AT
UNDERGROUND STORAGE
TANK SITES
IN NEW MEXICO**

**NMRBDM COMPUTATIONAL SOFTWARE
USER'S GUIDE**

March 2000

Developed for
**State of New Mexico
Environment Department
Underground Storage Tank Bureau**

Developed by
**Risk Assessment and Management Group, Inc.
7457 Harwin Drive, Suite 308, Houston, TX 77036
Ph. No. (713) 784-5151
Fax No. (713) 784-6105
E-mail: SMAtul@aol.com**

INTRODUCTION

The NMRBDM computational software (Microsoft Excel file) is distributed in one high-density 3.5" floppy diskette.

HARDWARE AND SOFTWARE REQUIREMENTS

To use the spreadsheet program, you need:

- An 80386-based computer or better.
- A monitor with VGA capabilities or better. An 800x600 resolution is highly recommended.
- A mouse.
- Microsoft (MS) Windows 3.1 or later version.
- Microsoft (MS) Excel 5.0 or later version.
- Eight (8) megabytes of random access memory (RAM).
- One (1) megabytes of disk space per worksheet module beyond the installation of MS Windows and MS Excel or MS Word.

PREREQUISITES

Operating knowledge and intermediate level of experience with MS Excel. Familiarity with NMRBDM program is highly recommended. Participation in NMRBDM training programs offered by RAM Group, Inc., developer of this software, is highly recommended.

INSTALLATION

- Insert the diskette into the floppy drive.
- Create directory in your harddrive,
e.g. *MD C:\NM if using MSDOS prompt. Window 3.1 users can create a directory in the File Manager and Windows 95 users in the Explorer.*
- Copy the files from the floppy drive to the directory,
e.g. *COPY A:*.* C:\NM*.**

SPECIAL INSTRUCTIONS

- The "**Analysis ToolPak**" in MS Excel is a required add-in. Use "**Tools**" from the main toolbar in an open workbook and click on "**Add-ins...**". In the following menu, select both "**Analysis ToolPak**" as well as "**Analysis ToolPak - VBA**" (Consult your MS Excel manual for further help on "Add-ins").

OPERATING THE SPREADSHEET PROGRAM

Note: Consult your Microsoft Excel manual for the basic spreadsheet operations.

- Use **“File”** and **“Open”** command from MS Excel menu to open the file.
- Use the **“Main Menu”** in the package to browse through the software. Once within the package, the **MAIN MENU** button, provided on all the input/output tables enable the user to get to the Main Menu. The relationship of the buttons to the operations is shown in the picture below.

NMRBDM RISK-BASED DECISION MAKING	
<input checked="" type="checkbox"/> TIER 1 RISK-BASED SCREENING LEVELS	<input type="checkbox"/> TIER 2 SITE-SPECIFIC TARGET LEVELS
INPUT PRINT	OUTPUT EXIT
Click Here SITE CONCEPTUAL EXPOSURE SCENARIO (Select receptors and ROE)	Click Here RESIDENTIAL-CHILD
Click Here CONTAMINANTS OF CONCERN	Click Here RESIDENTIAL-ADULT
Click Here PHYSICAL AND CHEMICAL PROPERTIES	Click Here RESIDENTIAL-SUMMARY
Click Here TOXICOLOGICAL PROPERTIES	Click Here COMMERCIAL WORKER
Click Here EXPOSURE FACTORS	Click Here CONSTRUCTION WORKER
Click Here FATE AND TRANSPORT PARAMETERS	Click Here GROUNDWATER PROTECTION WITHOUT CHEMICAL DEGRADATION
Click Here GROUNDWATER RESOURCE PROTECTION	Click Here GROUNDWATER PROTECTION WITH CHEMICAL DEGRADATION

- Click on the buttons to access different input/output tables, e.g., click button  to develop a Site Conceptual Exposure Scenario (Select receptors and ROE).
- Each input/output tables have four options,



The first button takes you to the Main Menu, the second takes you to the previous table, the third takes you to the next table, and the fourth button prints the table (other options for printing these tables are provided in the next section).

- **Hint:** Save the file under a different name. Use the **“File”** and **“Save As”** command from MS Excel menu.

PRINTING

- Click on the **PRINT** button on the **MAIN MENU**. The following window appears:

SELECT ALL	SELECT INPUT DATA AND OUTPUT TO PRINT	
UNSELECT ALL	INPUT	OUTPUT
PRINT	<input type="checkbox"/> SITE CONCEPTUAL EXPOSURE SCENARIO (Select receptors and ROE)	<input type="checkbox"/> RESIDENTIAL - CHILD
MAIN	<input type="checkbox"/> CONTAMINANTS OF CONCERN	<input type="checkbox"/> RESIDENTIAL - ADULT
	<input type="checkbox"/> PHYSICAL AND CHEMICAL PROPERTIES	<input type="checkbox"/> RESIDENTIAL - SUMMARY
	<input type="checkbox"/> TOXICOLOGICAL PROPERTIES	<input type="checkbox"/> COMMERCIAL WORKER
	<input type="checkbox"/> EXPOSURE FACTORS	<input type="checkbox"/> CONSTRUCTION WORKER
	<input type="checkbox"/> FATE AND TRANSPORT PARAMETERS	<input type="checkbox"/> WITHOUT DECAY
	<input type="checkbox"/> GROUNDWATER RESOURCE PROTECTION	<input type="checkbox"/> WITH DECAY

- Check the boxes beside the input/output tables you desire to print and click the PRINT button.
- There are options for **selecting** or **deselecting** all the tables simultaneously.
- The **MAIN** button takes you back to the **MAIN MENU**.
- Alternatively, you can use the **PRINT icon** in the MS Excel toolbar directly and print each table one at a time.

MODELS AND EQUATIONS

The models and equations programmed into this NMRBDM software are presented at the end of Section 4.0 of the New Mexico Underground Storage Tank Bureau Guidelines For Corrective Action, March 13, 2000.