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**AUTOMATED ESTIMATING SYSTEM (AES)
STANDARD VALUE UPDATE PROGRAM
USER'S MANUAL**

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1.0 INTRODUCTION

This manual contains instructions for operating the Standard Value Update Program. This program is operated and controlled by selected individuals in the Estimating and Scheduling Engineering Department of the Martin Marietta Energy Systems, Inc., Engineering Division. It is used to control and standardize input into the Automated Estimating System (AES) Estimating program, a personal computer-based software package designed to aid in the creation, updating, and reporting of project cost estimates. The AES Estimating program is documented in a separate user's manual (K/CSD/TM-64, Rev. 5).

1.1 ORGANIZATION OF THIS MANUAL

Section 2.0 describes the Standard Value Update Program used to create and update the standard value file that supplies participant codes and approved rates for labor craft codes, mark-up values, and escalation rates to the AES Estimating program.

Appendixes A and B supply data input field definitions for the Standard Value Update Program windows and a hard-copy example of a standard value file listing.

1.2 OPERATING REQUIREMENTS

The output file(s) produced by the Standard Value Update Program described in this manual must reside on the same disk as the AES Estimating program's system files in order to be accessed by the system. All AES-related programs are designed to be used on an IBM PC, PC-XT, PC-AT, PS/2, or any true IBM PC-compatible microcomputer with the following minimum hardware configuration:

- 640KB Random Access Memory (RAM)
- Color Graphics Monitor and Adapter
- One 720KB Diskette Drive
- One Hard Disk Drive (either fixed or removable)
- Printer

The only software required in addition to the AES is the IBM PC Disk Operating System (DOS) version 3.1 or higher.

2.0 STANDARD VALUE UPDATE PROGRAM OVERVIEW

2.1 PROGRAM DESCRIPTION

The Standard Value Update Program allows the standard value file to be created or updated. The standard value file is assigned an eight-character name by the user, but it has a system-supplied extension of ".VAL" (e.g., xxxxxxxx.VAL). This file is required by the AES Estimating program and must reside on the same disk as the AES system files. If an updated standard value file is distributed after the AES programs have been installed, the file may be transferred to the system disk with the DOS COPY command. (Please refer to the DOS manual for details on the use of this command.) In applications where multiple users are working on the same project, this file can be centrally maintained and distributed to ensure that all those users are working with consistent information.

The standard value file contains participant codes, titles, and groups; labor craft codes, titles, and rates; percentage mark-up values; discipline codes and titles; cost codes and titles; and escalation rates that have been approved for estimates. The participant code is four characters in length and indicates the organization (Cost Plus Award Fee Contractor, Fixed Price Contractor, etc.) responsible for completing a portion of work. The labor craft code is two characters in length and represents a craft, such as pipe fitter, carpenter, or engineer. Each craft may have a different hourly rate for each participant. This enables the system to reflect differences in labor costs among the various participants. The percentage mark-up values are factors applied to the base costs in each estimate. These mark-up values are used to calculate costs, such as indirects, sales tax, and other costs that can be expressed as a function of direct costs. The escalation rates are used in calculating escalation factors that are used to determine the escalated value of an estimate.

The standard value file also contains an expiration date. This date is used by the AES Estimating program to verify that the standard value file contains current rates. If the current date, retrieved from the PC internal clock, is greater than the standard value file expiration date, the AES Estimating program will issue a warning message.

2.2 OPERATING ENVIRONMENT

You communicate with the Standard Value Update Program through three basic formats: selection formats (making menu selections), data entry formats (typing data into fields or forms), and display formats (viewing lists of data displayed by the system).

Version 4.0 of the Standard Value Update Program displays these formats to you in a mouse-driven windows environment. Clicking the left mouse button on a menu option selects the option from the menu. If you do not have a mouse, you can use the Tab key and arrow (→, ←, ↑, ↓) keys to cursor to and highlight an option; then, press the Enter key (↵) to select the highlighted option. Standard keyboard letter and number keys are also used for data entry. Mouse and keyboard operation methods can be used interchangeably in the program operations.

Another means of operating the program windows is through "hot keys." A hot key is the highlighted letter that is displayed within some option names. When this letter is pressed in combination with the **Alt** key (press and hold **Alt**, then press the letter key), the corresponding option is selected from the current window. Using hot keys is the fastest method of selecting a menu option or command. Hot keys also help you move your text cursor to a specific field (if its name contains a hot key). Some hot keys on options outside the active window do not need to be preceded by the **Alt** key--pressing just the letter key will work.

2.3 PROGRAM EXECUTION

To execute the Standard Value Update Program, type **STDVALUE** at the DOS prompt and press the **Enter** (**↵**) key.

2.3.1 Selecting a Standard Value File

Upon entering the Standard Value Update Program, the following window is displayed:

This window prompts you for the name of a standard value file and displays the **.VAL** files currently residing in your default directory. The standard value file you last selected is displayed in the "Standard Value Filename" field. The "Files" window displays all the ***.VAL** files in your default directory. You may replace the default file name by selecting one of the other **.VAL** files from the "Files" window (if you double-click on a new name, that file is automatically loaded, and this window disappears). The bottom of the window displays the file size and the last update date and time of the currently highlighted file name. When the correct file name is displayed in the field, select [**Open**] to use this file for your updates. The [**Cancel**] button is provided if you do not wish to select a standard value file. This button exits the program if a file has not been opened.

By selecting the small [↓] button next to the file name field (by either clicking on it or pressing the keyboard ↓ key while the cursor is in this field), you can view the files you have selected during this work session:

You can make one of these previously used files current by double-clicking on the file name--the pop-up window is closed, and your selection is displayed in the field. You may also use the pop-up window's close button [X] to dismiss the window without making a selection.

After the [Open] button is selected to open a file, the system will check for the expiration date of the file. If the standard value file has expired, a warning message is displayed to inform you of the status of the file:

Select [OK] to continue after reading the message. The following window allows you to enter a new date for the standard value file you are about to update:

Enter an expiration date and select [OK] to continue to the Main Menu Bar (see next page). Pressing the F1 (Help) key while on the above window displays an informational message describing the format of the date to be entered.

Press the **Esc** key after reading this message to continue entering the date on the previous window.

2.3.2 The Main Menu Bar

After the standard value file has been selected, the Main Menu Bar is displayed as shown below. To activate the Main Menu Bar, click your mouse on one of the menu options or press the **F10** key to highlight the first option (Set Up) of the Menu Bar.

Use the mouse to click on one of the three menu options, and a pull-down list of suboptions will be displayed. The menu options can also be selected using the keyboard arrow keys (**←**, **↑**, **→**, **↓**) to highlight the option and the Enter (**↵**) key to select the highlighted option.

The pull-down menus for each of the Main Menu Bar options are displayed below. The options on these menus are discussed in detail in the referenced manual sections.

The Set Up menu options give you information on the current Standard Value Update Program version and allow you to load or save your current standard value file. The Exit option exits the Standard Value Update Program. For more information, see Sect. 3.1.

The Modify menu allows you to select the codes, dates, or rates you wish to update. For more information see Sect. 3.2.

The Listing menu allows you to generate a report of the current standard value file. For more information see Sect. 3.3 and Appendix B.

2.3.3 Exiting the Standard Value Update Program

To exit the program, access the Main Menu Bar either using the F10 key or clicking on the bar with your mouse. Select the **Set Up** option from the Main Menu Bar. Then, select the **Exit** option from the Set Up menu. Additional prompts may be displayed if you have a standard value file open. See Sect. 3.1.4 for details. The DOS prompt is displayed upon termination of the program.

3.0 PROGRAM OPERATION

3.1 SET UP

The Set Up menu options give you information on the current Standard Value Update Program version and allow you to load or save your current standard value file. The Exit option exits the Standard Value Update Program. These options are explained below.

3.1.1 Load Standard Value

This option allows you to load another standard value file into memory. If a file is currently open, this option displays the following prompt to allow you to save the current file before opening another one.

Choose either [Yes] or [No]; the following directory is displayed to select another file to open:

Select a file name from this directory in the same manner as previously described in Sect. 2.3.1, Selecting a Standard Value File.

3.1.2 Save Standard Value

This option allows you to save the current standard value file as a new file or as an update to an existing file, using the following directory window:

Either enter a new file name in the "Standard Value Filename" field or select an existing file name from this directory. Select the [OK] button when the correct name is entered in the file name field. The current file will be saved, and you are returned to the Main Menu Bar.

If you entered an existing file name, the following warning prompt is displayed:

Select [Yes] or [No] as appropriate.

3.1.3 Program Version

This option displays the current version number of the Standard Value Update Program on the following window:

Select [OK] to continue after reading this information.

3.1.4 Exit, Alt+X

This option exits the Standard Value Update Program. If a file is currently open that has not been saved, the program will display the following warning prompt:

Select [Yes] or [No] as appropriate to either save or discard the latest changes to the file. If you choose [Yes], the following window is displayed to prompt you for a file name:

The name of the standard value file you are currently accessing will be displayed in the "(Save) Standard Value Filename" field. Select **[OK]** to replace the displayed standard value file with the modifications you have just made. Or, you may save these modifications under a different name if you type over the displayed name or select another name from the "Files" directory listing and then press **[OK]**. You will be returned to the DOS prompt.

CAUTION: You **MUST** enter a file name to save the current changes--if you select **[Cancel]** from this window, you will exit the Standard Value Update Program without saving the current changes.

If you enter an existing file name, the following warning prompt is displayed:

Select **[Yes]** or **[No]** as appropriate.

3.2 MODIFY

The Modify menu allows you to select the codes, dates, or rates you wish to update. These options are discussed in detail in the following sections of this manual.

3.2.1 Expiration Date

The following window allows you to enter a new expiration date for the standard value file you are about to update:

[.] C:\AES\SAMPLE.VAL - Expiration Date

Enter Expiration Date of Standard Value: 03/30/1994

OK Abort

Enter an expiration date and select [OK] to return to the Main Menu Bar. Pressing [Abort] cancels the update of the expiration date and returns to the Main Menu Bar. Pressing F1 (Help) displays an informational message describing the format of the date to be entered.

[.]<Esc> to Close - <Alt+Z> to Zoom -[F1]

Expiration Date

The Standard Value file expiration date determines when the Standard Value information expires.

Enter the expiration date of the current Standard Value file in the form of mm/dd/yyyy.

Press the Esc key after reading this message to return to the previous window and continue entering the date.

3.2.2 Participant Update

There are three suboptions under the Participant Update selection:

```
Define Participant Groups
Define Participant Phases
Define Participant Codes
```

These options are discussed in the next three sections.

Define Participant Groups

When this option is selected, the following window is displayed:

Up to 20 group names may be added to this list by typing in new titles. A name is deleted by highlighting the name and selecting the **[Delete]** button. The **[Exit]** button allows you to leave this window--any changes you have made will be saved by the program. The **[Abort]** button cancels the update of the Participant Groups and returns to the Main Menu Bar. Pressing F1 (Help) displays the following information:

Participants are assigned to groups using the "Define Participant Codes" function (see the following sections). Any codes that are not specifically assigned to one of the groups are placed in the "Other" group by the program. Press the **Esc** key after reading the message to return to the previous window.

Define Participant Phases

The participant phases are defined on the following window:

```
[.]----- C:\AES\SAMPLE.VAL - Participant Phase -----[.]
```

Phase Code	Phase Title
A	TITLE I & II
B	TITLE III
C	CONSTRUCTION MANAGER
D	PROJECT MANAGER
E	CONSTRUCTION
F	OTHER

These Phase Titles may be changed by typing over the existing titles. The **[Exit]** button exits this window and saves any changes that are displayed. The **[Abort]** button cancels the update of the Participant Phases and returns to the Main Menu Bar. Pressing F1 (Help) displays the following information:

```
[.]-----<Esc> to Close - <Alt+Z> to Zoom-----[F1]
```

Participant Phases

Enter Titles representing the Participant Phases of Work. Initially the Titles are:

A - Title I & II	B - Title III
C - Construction Manager	D - Project Manager
E - Construction	F - Other

Press the **Esc** key after reading the message to return to the previous window.

Define Participant Codes

Existing participant codes are displayed on the following window:

C:\AES\SAMPLE.VAL - Participant Codes

Code	Title	Group	Phase	Category
11	- MMES TITLE I & II EN	MMES	TITLE I & II	CENTRAL
13	- MMES TITLE III ENGR.	MMES	TITLE III	CENTRAL
18	- A-E TITLE I & II ENG	A-E	TITLE I & II	SUBCONTRAC
19	- A-E TITLE III ENGR.	A-E	TITLE III	SUBCONTRAC
21	- MMES PROCUREMENT	MMES	TITLE III	CENTRAL
22	- MMES SOFTWARE	MMES	TITLE I & II	CENTRAL
31	- MMES FABRICATION SHO	MMES	TITLE III	PLANT
41	- MMES FIELD MAINTENAN	MMES	OTHER	PLANT
42	- MMES MACHINE MAINTEN	MMES	CONSTRN MANAGEMENT	PLANT
48	- MMES A-E SUPPORT	MMES	PROJECT MANAGEMENT	CENTRAL
49	- MMES PROJECT SERVICE	MMES	PROJECT MANAGEMENT	CENTRAL
51	- FIXED PRICE CONSTRUC	FP	CONSTRN MANAGEMENT	SUBCONTRAC

The Title, Group, Phase, and Category of each defined code is displayed on this list. The list can be scrolled to display additional codes that may exist. To scroll the list, use the ↓ key or use the mouse to click on the scroll bar at the right of the list. Additive rates can be entered for each participant in the form of indirect mark-up percentages and sales tax--this information is available on another window that is displayed when the **[Add]** or **[Modify]** button is selected. These buttons and the other action buttons on the bottom of this window are defined below:

[Add] The Add function allows you to define up to 80 codes. The following window allows you to define a title, phase, group, category, and additive information for the new code. Default values are supplied by the program as shown below, but they may be changed.

Participant Code - Add

Participant Code: Title:

Phase: Group:

Category:

----- Indirect Mark-up Percentages -----

	Material %	Labor %
General Contractor:	<input type="text"/>	<input type="text"/>
Subcontractor.....:	<input type="text"/>	<input type="text"/>

----- Sales Tax -----

	%	+	\$
A. Material	<input type="text"/>		<input type="text"/>
B. Large Single Item	<input type="text" value="6.00"/>		<input type="text" value="40"/>
C. Professional Services	<input type="text"/>		<input type="text"/>

Use the Tab key or mouse to access the fields and enter data. When information is complete, select [Add] to add this record and return to the Participant Codes window. [Abort] leaves this window without saving the displayed data. Help information is available by pressing the F1 key for the field that is currently highlighted. These information messages are displayed below:

[*]-----<Esc> to Close - <Alt+Z> to Zoom -----[?]

Participant Code

Enter Participant Code -- REQUIRED FIELD.

Duplicate Participant Codes are NOT ALLOWED.

[*]-----<Esc> to Close - <Alt+Z> to Zoom -----[?]

Participant Title

Enter the Participant Title which identifies the current participant code.

[*]----- Phases -----

REQUIRED FIELD

A - TITLE I & II

B - TITLE III

C - CONSTRN MANAGEMENT

D - PROJECT MANAGEMENT

E - CONSTRUCTION

F - OTHER

OK

[*]----- Groups -----

REQUIRED FIELD

MMES

A-E

FP

MK-F

OTHER

OK

[*]----- Categories -----

REQUIRED FIELD

C - CENTRAL

H - HAZWRAP/DSRD

P - PLANT

S - SUBCONTRACTOR

O - OTHER

OK

```

[=]-----<Esc> to Close - <Alt+Z> to Zoom -----[?]
Participant Indirect Mark-ups
Enter the Participant Indirect Mark-ups
(Material & Labor) as a percentage.

```

```

[=]-----<Esc> to Close - <Alt+Z> to Zoom -----[?]
Participant Tax
Enter Participant Sales Tax Rate as a
percentage and the Dollar amount to be
added after applying the Sales Tax Rate.

```

Press the Esc key to return to the base Add window after reading these informational messages.

[Modify] The Modify function allows you to update code information. The following window displays the existing information for the currently highlighted code on the Participant Codes list.

```

[=]----- Participant Code - Modify -----
Participant Code: 11 Title: HRES TITLE I & II ENDR.
Phase: A TITLE I & II Group: HRES
Category: C CENTRAL
----- Indirect Mark-up Percentages -----
General Contractor: Material % Labor %
Subcontractor:
----- Sales Tax -----
A. Material % + $
B. Large Single Item 6.00 40
C. Professional Services
[Modify] [Abort]

```

Use the Tab key or mouse to access the fields and modify data. When information is complete, select **[Modify]** to save these changes and return to the Participant Codes window. **[Abort]** leaves this window without saving the displayed changes. Help information is available by pressing the F1 (Help) key for the field that is currently highlighted. These information messages are displayed above in the description of the **[Add]** function.

[Delete] This button automatically removes the highlighted participant code from the list.

[Exit] When all changes are completed for the listed codes, the **[Exit]** button is used to leave the "Define Participant Codes" function and return to the Main Menu Bar.

3.2.3 Craft Codes/Rates

Craft codes, titles, and rates can be added, modified, or deleted from the standard value file using this function. The existing crafts and codes are displayed on the following window:

C:\AES\SAMPLE.VAL - Craft Codes

Current Record: <Alt+C>		11	13	18	19	21
AW	ASBESTOS WORKER	0.00	0.00	0.00	0.00	0.00
Select List: <Alt+L>						
▲	AW ASBESTOS WORKER	0.00	0.00	0.00	0.00	0.00
•	BM BOILERMAKER	0.00	0.00	0.00	0.00	0.00
	M BRICKMASON	0.00	0.00	0.00	0.00	0.00
	C CARPENTER	0.00	0.00	0.00	0.00	0.00
	F CEMENT FINISHER	0.00	0.00	0.00	0.00	0.00
	E ELECTRICIAN	0.00	0.00	0.00	0.00	0.00
	IW IRON WORKER	0.00	0.00	0.00	0.00	0.00
	L LABORER	0.00	0.00	0.00	0.00	0.00
	MW MILLWRIGHT	0.00	0.00	0.00	0.00	0.00
	OP OPERATING ENGINEER	0.00	0.00	0.00	0.00	0.00
	P PAINTER	0.00	0.00	0.00	0.00	0.00
	PF PIPEFITTER	0.00	0.00	0.00	0.00	0.00
▼						

Five participant codes are displayed on the first line, one above each column of numerical data. A scrolling bar at the bottom of the columns allows additional participant columns to be scrolled right or left onto the window.

A maximum of 80 craft codes are allowed. Twelve craft codes are displayed in the first column of the window at one time--the rest can be scrolled onto the window using the scrolling arrow bar on the left of the "Select List." Use the mouse or ↑ and ↓ keys to highlight a particular craft line. As the line is highlighted, it is also displayed in the "Current Record" fields at the top of the window. The cursor can be placed in the "Current Record" fields to modify the displayed data--when ← is pressed after a value has been modified, the new value is echoed in the highlighted line on the scrolling list below.

The action buttons on the bottom of the window allow craft codes to be inserted, appended, and deleted from the "Select List." Pressing F1 (Help) lists the keyboard "hot" keys that can be used, instead of the mouse, to access the "Current Record," "Select List," and action button functions:

Press the **Esc** key to exit this help message and return to the Craft Codes window. The functions of the action buttons on the bottom of the Craft Codes window are discussed in detail below.

- [Insert]** Selecting this button opens a blank line in the list just above the currently highlighted line. The "Current Record" fields at the top of the window are also blanked to allow you to enter a new code, title, and rates for each participant code column. As these values are entered, they will be echoed in the blank line of the list.
- [Append]** Selecting this button opens a blank line at the bottom of the "Select List." The "Current Record" fields at the top of the window are also blanked to allow you to enter a new code, title, and rates for each participant code column. As these values are entered, they will be echoed in the blank line at the bottom of the list.
- [Delete]** Selecting this button removes the currently highlighted code line from the "Select List."
- [Exit]** When all craft codes changes have been made, the **[Exit]** button dismisses the Craft Code window and returns you to the Main Menu Bar.

3.2.4 Discipline Codes

Discipline codes and titles can be added, modified, or deleted from the standard value file using this function. The existing codes and titles are displayed on the following window:

The action buttons on the bottom of the window allow discipline codes to be added, modified, and deleted from the list. Pressing F1 (Help) lists the keyboard "hot" keys that can be used, instead of using the mouse, to access the action button functions:

Press the **Esc** key to exit this help message and return to the Discipline Codes window. The functions of the action buttons on the bottom of the Discipline Codes window are discussed below.

[Add] The following window is displayed to let you type in a new code and title.

Select the [Add] button from this pop-up window when the information is complete. The program will return to the Discipline Codes list, placing the new entry in alphabetical order in the list. If you choose not to add the entered code, the [Abort] button will return to the Discipline Codes list without saving the entered data.

[Modify] The following window is displayed with existing data from the currently highlighted discipline code line:

[-] Discipline Code - Modify

Disc Code: A

Title: ARCHITECTURAL

Modify Abort

Select the [Modify] button from this pop-up window when the information is complete. The program will return to the Discipline Codes list, placing the changes in the list. If you choose not to save the changes, select the [Abort] button to return to the Discipline Codes list without saving the entered data.

[Delete] Selecting this button removes the currently highlighted code line from the list.

[Exit] When all codes changes have been made, the [Exit] button dismisses the window and returns to the Main Menu Bar.

3.2.5 Cost Codes

Cost codes and titles can be added, modified, or deleted from the standard value file using this function. The existing codes and titles are displayed on the following window:

C:\AES\SAMPLE.VAL - Cost Codes

1000 - LAND AND LAND RIGHTS

2000 - IMPROVEMENT TO LAND

3000 - NEW BUILDINGS AND ADDITIONS

4000 - BUILDING MODIFICATIONS

5000 - OTHER STRUCTURE

6000 - SPECIAL FACILITIES

7000 - UTILITIES

8000 - STANDARD EQUIPMENT

9000 - CONST NGMT/SUPPORT SERVICES

9999 - ENGINEERING

Add Modify Delete Exit

The action buttons on the bottom of the window allow cost codes to be added, modified, and deleted from the list. Press F1 (Help) to list the keyboard "hot" keys that can be used on this window to access the action button functions instead of using the mouse:

Press the **Esc** key to exit this help message and return to the Cost Codes window. The functions of the action buttons on the bottom of the Cost Codes window are discussed in detail below.

[Add] The following window is displayed to let you type in a new code and title.

Select the **[Add]** button from this pop-up window when the information is complete. The program will return to the Cost Codes list, placing the code in numerical order in the list. If you choose not to save the entered code, select the **[Abort]** button to return to the Cost Codes list without saving the entered data.

[Modify] The following window is displayed with existing data from the currently highlighted cost code line:

Select the **[Modify]** button from this pop-up window when the information is complete. The program will return to the Cost Codes list, placing the changes in

the list. If you choose not to save the changes, the [Abort] button will return to the Cost Codes list without saving the entered data.

[Delete] Selecting this button removes the currently highlighted code line from the list.

[Exit] When all codes changes have been made, the [Exit] button dismisses the window and returns to the Main Menu Bar.

3.2.6 Funding Type Codes

Funding type codes and titles can be added, modified, or deleted from the standard value file using this function. The existing codes and titles are displayed on the following window:

The action buttons on the bottom of the window allow funding codes to be added, modified, and deleted from the list. Pressing the F1 key lists the keyboard "hot" keys that can be used on this window to access the action button functions instead of using a mouse:

Press the **Esc** key to exit this help message and return to the Funding Types window. The functions of the action buttons on the bottom of the Funding Types window are discussed in detail below.

[Add] The following window is displayed to let you type in a new code and title.

Select the **[Add]** button from this pop-up window when the information is complete. The program will return to the Funding Types list, placing the code in alphabetical order in the list. If you choose not to save the entered code, the **[Abort]** button will return to the Funding Types list without saving the entered data.

[Modify] The following window is displayed with existing data from the currently highlighted funding type line:

Select the **[Modify]** button from this pop-up window when the information is complete. The program will return to the Funding Types list, placing the changes in the list. If you choose not to save the changes, the **[Abort]** button will return to the Funding Types list without saving the entered data.

[Delete] Selecting this button removes the currently highlighted code line from the list.

[Exit] When all codes changes have been made, the **[Exit]** button dismisses the window and returns to the Main Menu Bar.

3.2.7 Site Codes

Site codes and titles can be added, modified, or deleted from the standard value file using this function. The existing codes and titles are displayed on the following window:

The action buttons on the bottom of the window allow site codes to be added, modified, and deleted from the list. Pressing the F1 (Help) key lists the keyboard "hot" keys that can be used on this window to access the action button functions instead of using the mouse:

Pressing the F1 (Help) key exits this help message and returns to the Site Codes window. The functions of the action buttons on the bottom of the Site Codes window are discussed in detail below.

[Add] The following window is displayed to let you type in a new code and title.

Select the [Add] button from this pop-up window when the information is complete.

The program will return to the Site Code list, placing the code in alphabetical order in the list. If you choose not to save the entered code, the [Abort] button will return to the Site Code list without saving the entered data.

[Modify] The following window is displayed with existing data from the currently highlighted site code line:

Select the [Modify] button from this pop-up window when the information is complete. The program will return to the Site Codes list, placing the changes in the list. If you choose not to save the changes, the [Abort] button will return to the Site Codes list without saving the entered data.

[Delete] Selecting this button removes the currently highlighted code line from the list.

[Exit] When all codes changes have been made, the [Exit] button dismisses the window and returns to the Main Menu Bar.

3.2.8 Cross-Cut Codes

Cross-cut codes and titles can be added, modified, or deleted from the standard value file using this function. There are three categories of cross-cut codes that may be entered: Program Type, Project Type, and Phase of Work. Initially, Program Type is selected, and the existing codes and titles are displayed on the following window:

The action buttons on the bottom of the window allow cross-cut codes for the current category to be added, modified, and deleted from the list. The action buttons on the right-hand side of the

window allow selection of the cross-cut category to be updated. Pressing the F1 key lists the keyboard "hot" keys that can be used on this window to access the action button functions instead of using a mouse:

Scrolling the above Help message displays the keyboard "hot" keys that can be used to access the action buttons on the right-hand side of the window.

Press **Esc** to exit this help message and return to the Cross-Cut Codes window. The functions of the action buttons on the Cross-Cut Codes window are described below.

[Program Type] Retrieves and displays existing Program Type cross-cut codes for update.

[Project Type] Retrieves and displays existing Project Type cross-cut codes for update.

[Phase of Work] Retrieves and displays existing Phase of Work cross-cut codes for update.

[Add] The following window is displayed to allow you to type in a new code and title:

Select the [Add] button from this pop-up window when the information is complete. The program will return to the cross-cut list, placing the code in alphabetical order in the list. If you choose not to save the entered code, the [Abort] button will return to the cross-cut list without saving the entered data.

[Modify] The following window is displayed with existing data from the currently highlighted cross-cut code line:

[] Program Type - Modify

Code: 01

Title: REMEDIAL ACTION

Modify Abort

Select the [Modify] button from this pop-up window when the information is complete. The program will return to the cross-cut list, placing the changes in the list. If you choose not to save the changes, the [Abort] button will return to the Cross-Cut Code list without saving the entered data.

[Delete] Selecting this button removes the currently highlighted code line from the list.

[Exit] When all codes changes have been made, the [Exit] button dismisses the window and returns you to the Main Menu Bar.

3.2.9 Escalation Rates

Escalation rates for ten years can be entered or deleted using the following window:

[.] C:\AES\SAMPLE.VAL - Escalation Rates

FISCAL YEAR	ESCALATION RATE (%)
1992	0.9
1993	1.9
1994	2.3
1995	3.0
1996	3.2
1997	3.4
1998	3.3
1999	3.3
2000	3.3
2001	3.3

Delete Exit Abort

The cursor is placed on the first fiscal year field to allow you to enter the first year for which escalation rates are to be entered. The program calculates the next nine years, displays them on the window, and positions the cursor on the first escalation rate field. When an escalation rate is

entered, the same rate will automatically be displayed for all following years. Move the cursor through the escalation rates to adjust the displayed rates, moving from the earliest year to the latest year. The **Backspace** key can be used to delete the character that precedes the current cursor position.

When all rates are adjusted, select **[Exit]** to save the entered data and return to the Main Menu Bar.

The **[Delete]** button can be used to clear all existing escalation years and rates from the window for new data entry.

Selecting **[Abort]** cancels the updates to the Escalation Rates and returns to the Main Menu Bar.

Help in entering escalation rates on this window is displayed when **F1 (Help)** is pressed:

Press the **Esc** key after reading this information to return to the Escalation Rates window.

3.2.10 Overhead Rates

Overhead rates for materials and labor are entered by site and funding type using the following window:

C:\AES\SAMPLE.VAL - Overhead Rates

Subcontract Overhead Rates - Labor

	K-25	X-10	Y-12	Other
LINE ITEM 95 ON				
LINE ITEM TO 95				
GPP/CE FY95 ON				
GPP/CE TO FY95				
EXPENSE	5.760	7.300	5.310	8.700
SPECIAL (NO OH)				
WORK FOR OTHERS	6.260	7.800	5.810	9.200

Overhead rates for each of the sites and six material/labor categories are paged onto this window using the action buttons on the bottom of the display. The [Next Sites] and [Prev Sites] buttons scroll additional site columns horizontally across the window. Values are entered by positioning the cursor on the highlighted column and line and typing in the value. The program will format the entered value in the column when you press the Tab or **←** key.

There are six "pages" of rates, one for each of the material/labor action buttons on the bottom of the window ([Material], [Central-Labor], [Subcontract], [Plant-Labor], [Hazwrap/DSRD-Labor], and [Other]). Select the material/labor category button for the rates you wish to enter.

When all rates have been entered, select [Exit] to leave this window and return to the Main Menu Bar.

3.3 LISTING

The Listing menu allows you to generate a report of the current standard value file.

When you select **Generate Report** from the Listing option, a formatted listing of the standard value file is produced. The following message is displayed:

The listing will be written to a disk file with the same name as the standard value file you are currently accessing. This file will use the extension of ".OUT". When the system has created the listing, the Main Menu Bar will again be displayed. After exiting the Standard Value Update Program, you can send the disk file to a printer using the DOS print command. (Please refer to the DOS manual for details on the use of this command.) See Appendix B for a hard-copy example of the standard value file listing.

APPENDIX A

WINDOW LAYOUTS AND FIELD DEFINITIONS

This appendix contains the window layouts and field definitions for each input window in the Standard Value Update Program. The layouts and field definitions for each window appear on the following pages:

Participants Groups Window	A-2
Participant Phase of Work Window	A-4
Participant Code Window	A-6
Craft Codes and Rates Window	A-10
Discipline Codes and Titles Window	A-12
Cost Codes and Titles Window	A-14
Funding Type Codes and Titles Window	A-16
Site Codes and Titles Window	A-18
Cross-Cut Codes and Titles Window	A-20
Escalation Rates Window	A-22
Overhead Rates Window	A-24

Participants Groups Window

**Automated Estimating System
Standard Value File - Participant Groups**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Group Title	Title that describes a group of participants that are related in some way.	Estimating Mgmt.		Char	10	

Participant Phase of Work Window

[*]

C:\AES\SAMPLE.VAL - Participant Phase

Phase Code	Phase Title
A	B
A	B
A	B
A	B
A	B
A	B

Exit

Abort

**Automated Estimating System
Standard Value File - Participant Phase of Work**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Phase Code	<p>Code representing various phases of work. On creation of a Standard Value file the codes are set to represent the following:</p> <p style="margin-left: 40px;">A - Title I & II B - Title III C - Construction Manager D - Project Manager E - Construction F - Other</p>	System	A,B,C,D, E,F	Char	1	Yes
B	Phase Title	Title that the Phase Code represents	Estimating Mgmt.		Char	20	

Participant Code Window

[=] Participant Code - Add

Participant Code: Title:

Phase: CONSTRUCTION Group:

Category: OTHER

----- Indirect Mark-up Percentages -----

	Material %	Labor %
General Contractor:	<input type="text" value="F"/>	<input type="text" value="G"/>
Subcontractor.....:	<input type="text" value="H"/>	<input type="text" value="I"/>

----- Sales Tax -----

	%	+	\$
A. Material	<input type="text" value="J"/>		<input type="text" value="K"/>
B. Large Single Item	<input type="text" value="L"/>		<input type="text" value="M"/>
C. Professional Services	<input type="text" value="N"/>		<input type="text" value="O"/>

**Automated Estimating System
Standard Value File - Participant Update**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Participant Code	Participant Code used to uniquely identify an estimating participant.	Estimating Mgmt.		Char	4	Yes
B	Participant Title	Participant Title that the participant code identifies.	Estimating Mgmt.		Char	25	
C	Phase	Participant Phase Code that indicates the phase of work the participant will be involved in.	Estimating Mgmt.	A,B,C,D, E,F	Char	1	
D	Group	Group Title for which the participant code is included in. Must be a valid Group Title contained in the current Standard Value File	Estimating Mgmt		Char	10	
E	Category	Code that indicates the Category the participant falls in. Valid Categories are: C - Central S - Subcontractor H - Hazwrap/DSRD O - Other P - Plant	Estimating Mgmt.	C,H,P,S, O	Char	1	
	Indirect Mark-up %						
F	General Contractor - ...Material	General contractor's material indirect additive value applied to material cost.	Estimating Mgmt.	xx.xx%	Real	5	
G	...Labor	General contractor's labor indirect additive value applied to labor cost.	Estimating Mgmt.	xx.xx%	Real	5	
H	Subcontractor - ...Material	Subcontractor's material indirect additive value applied to material cost.	Estimating Mgmt.	xx.xx%	Real	5	
I	...Labor	Subcontractor's labor indirect additive value applied to labor cost.	Estimating Mgmt.	xx.xx%	Real	5	
J	Sales Tax ...Material %	Sales Tax % applied to Material	Estimating Mgmt.	xx.xx%	Real	5	

**Automated Estimating System
Standard Value File - Participant Update**

continued...

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
K	...Material \$	Dollar amount applied to material after the Material Sales Tax % has been applied.	Estimating Mgmt.	xxx	Real	3	
L	...Large Single Item %	Sales Tax % applied to Large Single Items..	Estimating Mgmt.	xx.xx%	Real	5	
M	...Large Single Item \$	Dollar amount applied to Large Single Item after the Large Single Item Sales Tax % has been applied.	Estimating Mgmt.	xxx	Real	3	
N	...Professional Services %	Sales Tax % applied to Professional Services	Estimating Mgmt.	xx.xx%	Real	5	
O	...Professional Services \$	Dollar amount applied to Professional Service after the Professional Services Sales Tax % has been applied.	Estimating Mgmt.	xxx	Real	3	

Craft Codes and Rates Window

C:\AES\SAMPLE.VAL - Craft Codes

Current Record: <Alt+C> 11 13 18 19 21

A	B	C	11	13	18	19	21
Select List: <Alt+L>							
▲	AW	ASBESTOS WORKER	0.00	0.00	0.00	0.00	0.00
•	BM	BOILERMAKER	0.00	0.00	0.00	0.00	0.00
	M	BRICKMASON	0.00	0.00	0.00	0.00	0.00
	C	CARPENTER	0.00	0.00	0.00	0.00	0.00
	F	CEMENT FINISHER	0.00	0.00	0.00	0.00	0.00
	E	ELECTRICIAN	0.00	0.00	0.00	0.00	0.00
	IW	IRON WORKER	0.00	0.00	0.00	0.00	0.00
	L	LABORER	0.00	0.00	0.00	0.00	0.00
	MW	MILLWRIGHT	0.00	0.00	0.00	0.00	0.00
	OP	OPERATING ENGINEER	0.00	0.00	0.00	0.00	0.00
	P	PAINTER	0.00	0.00	0.00	0.00	0.00
	PF	PIPEFITTER	0.00	0.00	0.00	0.00	0.00

Insert
Append
Delete
Exit

**Automated Estimating System
Standard Value File - Craft Codes/Rates**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Craft Code	Craft code to uniquely identify a construction craft.	Estimating Mgmt.		Char	2	Yes
B	Craft Title	Title of construction craft identified by the craft code.	Estimating Mgmt.		Char	20	
C	Craft Rate	Rate charge for the current craft code and participant code.	Estimating Mgmt.	xxx.xx	Real	6	

Discipline Codes and Titles Window

C:\AES\SAMPLE.VAL - Discipline Codes

A - ARCHITECTURAL	▲
B - CHEMICAL PROCESS	•
C - CIVIL AND SITE	■

[*] Discipline Code - Add

Disc Code: A

Title: #

Add Abort

Add Modify Delete Exit

**Automated Estimating System
Standard Value File - Discipline Codes**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Discipline Code	Discipline code representing the Engineering Discipline.	Estimating Mgmt.		Char	1	Yes
B	Discipline Title	Discipline Title that the discipline code represents.	Estimating Mgmt.		Char	30	

Cost Codes and Titles Window

C:\AES\SAMPLE.VAL - Cost Codes

TITLE - LAND AND LAND RIGHTS
CODE - IMPROVEMENT TO LAND

[*] Cost Code - Add

Cost Code: A

Title: B

Add Abort

Add Modify Delete Exit

**Automated Estimating System
Standard Value File - Cost Codes**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Cost Code	Cost code from the DOE Cost Code of Accounts.	Estimating Mgmt.		Char	4	Yes
B	Cost Code Title	Cost Code Title that the cost code represents.	Estimating Mgmt.		Char	30	

Funding Type Codes and Titles Window

The screenshot shows a main window titled "C:\AES\SAMPLE.VAL - Funding Types". Inside, there are two menu items: "L - LINE ITEM VS ON" and "N - LINE ITEM TO PS", each followed by a right-pointing triangle symbol. Below these is a section header "[=] Funding Types - Add". Under this header, there are two input fields: "Funding Type:" with the value "A" entered, and "Title:" which appears to have some obscured or placeholder text. At the bottom of this section are two buttons labeled "Add" and "Abort". A thick horizontal bar separates this from the footer, which contains four buttons labeled "Add", "Modify", "Delete", and "Exit".

C:\AES\SAMPLE.VAL - Funding Types

L - LINE ITEM VS ON ▲
N - LINE ITEM TO PS ■

[=] Funding Types - Add

Funding Type: A
Title:

Add Abort

Add Modify Delete Exit

**Automated Estimating System
Standard Value File - Funding Type**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Funding Type Code	Code to uniquely identify a type of funding.	Estimating Mgmt.		Char	1	Yes
B	Funding Type Title	Title of funding type identified by the funding type code.	Estimating Mgmt.		Char	15	

Site Codes and Titles Window

C:\AES\SAMPLE.VAL - Site Codes

K - K-25 ▲
K - K-10 ■

[*] Site Codes - Add

Site Code: A

Title: B

Add Abort

Add Modify Delete Exit

**Automated Estimating System
Standard Value File - Site Codes**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Site Code	Site code to uniquely identify a location of work or funding.	Estimating Mgmt.		Char	1	Yes
B	Site Code Title	Title of site identified by the site code.	Estimating Mgmt.		Char	15	

Cross-Cut Codes and Titles Window

C:\AES\SAMPLE.VAL - Cross Cut Codes

00 - DEFAULT	▲ ▼	Program Types
01 - REMEDIAL ACTION		
02 - B&D		

[*] Program Type - Add

Code: A

Title: B

Add Abort

Add Modify Delete Exit

**Automated Estimating System
Standard Value File - Cross-Cut Codes**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Cross-Cut Code	Code to uniquely identify a Program Type, Project Type, and Phase of Work.	Estimating Mgmt.		Char	2	Yes
B	Cross-Cut Title	Title of Program Type, Project Type, or Phase of Work identified by the Cross-Cut code.	Estimating Mgmt.		Char	20	

Escalation Rates Window

[*] C:\AES\SAMPLE.VAL - Escalation Rates

FISCAL YEAR	ESCALATION RATE (%)
A	B
A	B
A	B
A	B
A	B
A	B
A	B
A	B
A	B
A	B
A	B

Delete Exit Abort

**Automated Estimating System
Standard Value File - Escalation Rates**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Fiscal Year	Fiscal Year of esclation. 10 Years are covered.	Estimating Mgmt.		Int	4	Yes
B	Escalation Rate	Escalation percentage for the given year.	Estimating Mgmt.	xx.x	Real	4	

Overhead Rates Window

C:\AES\SAMPLE.VAL - Overhead Rates

Subcontract Overhead Rates - Labor

	K-25	X-10	Y-12	Other
LINE ITEM 95 ON	A .	A .	A .	A .
LINE ITEM TO 95	A .	A .	A .	A .
GPP/CE FY95 ON	A .	A .	A .	A .
GPP/CE TO FY95	A .	A .	A .	A .
EXPENSE	A .	A .	A .	A .
SPECIAL (NO OH)	A .	A .	A .	A .
WORK FOR OTHERS	A .	A .	A .	A .

Next Sites

Material

Plant-Labor

Prev Sites

Central-Labor

Nazwap/DSRD-Labor

Exit

Subcontract

Other

**Automated Estimating System
Standard Value File - Overhead Rates**

Item No	Data Item Nomenclature	Data Requirement Description	Source of Data	Value or Range	Type	Field Size	Key
A	Overhead Rates	<p>Overhead rate for the current Funding Type and Site Code. Overhead rates are entered for each of the following categories:</p> <p>Material Applied to material cost Central Applied to labor cost Subcontractor Applied to labor & material cost Plant Applied to labor cost Hazwrap/DSRD Applied to labor cost Other Applied to labor & material cost</p>	Estimating Mgmt.	xxx.xxx	Real	7	

APPENDIX B

EXAMPLE OF STANDARD VALUE FILE LISTING

This appendix shows an example of the output of the Standard Value File Listing. This listing is produced by selecting **Generate Report** from the **Listing** option of the Main Menu Bar. The listing is sent to a disk file that can be printed using the DOS print command.

Standard Value File

Listing For

OR0594A.VAL

07/19/1994

Expiration Date: 08/05/1995

Estimating Participant Codes

..... Participant	 Participant	 Participant
Code Title	Code Title	Code Title
11 ES TITLE I&II (SEC A)	12 ES TITLE I,II&III (SEC C)	13 ES TITLE III (SEC B)
17 AS TITLE I,II&III (SEC C)	18 AS TITLE I & II (SEC A)	19 AS TITLE III (SEC B)
21 M&ES PROCUREMENT	22 M&ES SOFTWARE	31 M&ES FABRICATION SHOP
41 M&ES FIELD MAINTENANCE	42 M&ES MACHINE MAINTENANCE	47 M&ES CONSTRUCTION SUPPORT
48 M&ES DESGN & PROJ LIAISON	49 M&ES PROJECT MANAGEMENT	51 FIXED PRICE CONSTRUCTION
52 FF CREDIT	53 FF UNIT SUBCONTRACTS	63 MK-F DIRECT HIRE
66 MK-F INDIRECTS ON FF	67 MK-F DIRECTS ON FF	77 H&WRAP
78 D&ED	81 M&ES ELECTRICAL SHOP	99 SPECIAL

Participant Grouping

Group Title: MSES

11 - ES TITLE I&II (SEC A)
13 - ES TITLE III (SEC B)
22 - MSES SOFTWARE
41 - MSES FIELD MAINTENANCE
47 - MSES CONSTRUCTION SUPPORT
49 - MSES PROJECT MANAGEMENT
78 - DSRD

12 - ES TITLE I,II&III (SEC C)
21 - MSES PROCUREMENT
31 - MSES FABRICATION SHOP
42 - MSES MACHINE MAINTENANCE
48 - MSES DESIGN & PROJ LIAISON
77 - HARWARE
81 - MSES ELECTRICAL SHOP

Group Title: A-E

17 - AE TITLE I,II&III (SEC C)
19 - AE TITLE III (SEC B)

18 - AE TITLE I & II (SEC A)

Group Title: FP

51 - FIXED PRICE CONSTRUCTION
53 - FP UNIT SUBCONTRACTS

52 - FP CREDIT

Group Title: MK-F

63 - MK-F DIRECT HIRE
67 - MK-F DIRECTS ON FP

66 - MK-F INDIRECTS ON FP

Group Title: OTHER

99 - SPECIAL

Participant Phases

PHASE..... TITLE I&II (Sect. A)
11 - ES TITLE I&II (SEC A)

18 - AE TITLE I & II (SEC A)

PHASE..... TITLE III (Sect. B)
13 - ES TITLE III (SEC B)

19 - AE TITLE III (SEC B)

PHASE..... TITLE I,II&III (Sect. C)
12 - ES TITLE I,II&III (SEC C)

17 - AE TITLE I,II&III (SEC C)

PHASE..... CONSTRUCTION MANAGEMENT
66 - MK-F INDIRECTS ON FP

PHASE..... PROJECT MANAGEMENT
49 - MMS PROJECT MANAGEMENT

PHASE..... DESIGN & PROJECT LIAISON
48 - MMS DESIGN & PROJ LIAISON

PHASE..... CONSTRUCTION
21 - MMS PROCUREMENT
31 - MMS FABRICATION SHOP
42 - MMS MACHINE MAINTENANCE
51 - FIXED PRICE CONSTRUCTION
53 - FP UNIT SUBCONTRACTS
67 - MK-F DIRECTS ON FP

22 - MMS SOFTWARE
41 - MMS FIELD MAINTENANCE
47 - MMS CONSTRUCTION SUPPORT
52 - FP CREDIT
63 - MK-F DIRECT HIRE
61 - MMS ELECTRICAL SHOP

PHASE..... OTHER
77 - HALWRAP
39 - SPECIAL

78 - DSD

Participant Categories

CATEGORY CENTRAL

11 - ES TITLE I&II (SEC A)
13 - ES TITLE III (SEC B)
22 - MMES SOFTWARE
48 - MMES DESIGN & PROJ LIAISON

12 - ES TITLE I,II&III (SEC C)
21 - MMES PROCUREMENT
47 - MMES CONSTRUCTION SUPPORT
49 - MMES PROJECT MANAGEMENT

CATEGORY SUBCONTRACTOR

17 - AE TITLE I,II&III (SEC C)
19 - AE TITLE III (SEC B)
52 - FP CREDIT
63 - MK-F DIRECT HIRE
67 - MK-F DIRECTS ON FP

18 - AE TITLE I & II (SEC A)
51 - FIXED PRICE CONSTRUCTION
53 - FP UNIT SUBCONTRACTS
66 - MK-F INDIRECTS ON FP

CATEGORY PLANT

31 - MMES FABRICATION SHOP
42 - MMES MACHINE MAINTENANCE

41 - MMES FIELD MAINTENANCE
81 - MMES ELECTRICAL SHOP

CATEGORY HAZWRAP/DSRD

77 - HAZWRAP

78 - DSRD

CATEGORY OTHER

99 - SPECIAL

Construction Labor Rates for Cost Estimates

Craft Code	Craft Title	Craft Rates by Participant									
		11	12	13	17	18	19	21	22	31	41
AW	ASBESTOS WORKER	...	...	...	...	...	...	...	...	...	...
BM	BOILERMAKER	...	...	...	...	...	...	...	...	...	...
M	BRICKMASON	...	...	...	...	...	...	...	...	...	...
C	CARPENTER	...	...	...	...	...	...	...	...	...	...
F	CEMENT FINISHER	...	...	...	...	...	...	...	...	...	...
E	ELECTRICIAN	...	...	...	...	...	...	...	...	...	...
IW	IRONWORKER	...	...	...	...	...	...	...	...	...	...
L	LABORER	...	...	...	...	...	...	...	...	...	...
MW	MILLWRIGHT	...	...	...	...	...	...	...	...	...	...
OP	OPERATING ENGINEER	...	...	...	...	...	...	...	...	...	...
P	PAINTER	...	...	...	...	...	...	...	...	...	...
PF	PIPEFITTER	...	...	...	...	...	...	...	...	...	...
R	ROOFER	...	...	...	...	...	...	...	...	...	...
SM	SHEETMETAL WORKER	...	...	...	...	...	...	...	...	...	...
SF	SPRINKLER FITTER	...	...	...	...	...	...	...	...	...	...
TD	TRUCK DRIVER	...	...	...	...	...	...	...	...	...	...
WH	WAREHOUSEMAN	...	...	...	...	...	...	...	...	...	...
MA	MK-F MOWER & ESCORT	...	...	...	...	...	...	...	...	...	...
MB	MK-F PROCUREMENT	...	...	...	...	...	...	...	...	...	...
MC	MK-F CONSTR ENGNG	...	...	...	...	...	...	...	...	...	...
MH	MK-F E.S. & H.	...	...	...	...	...	...	...	...	...	...
MO	MK-F OFFICE ENGNG	...	...	...	...	...	...	...	...	...	...
MP	MK-F PROJECT CONTROL	...	...	...	...	...	...	...	...	...	...
MR	MK-F CONSTR SUPERVEN	...	...	...	...	...	...	...	...	...	...
MQ	MK-F Q. A.	...	...	...	...	...	...	...	...	...	...
HA	HAZWRAF NON-EMERGT	...	...	...	...	...	...	...	...	...	...
HE	HAZWRAF EMERGT	...	...	...	...	...	...	...	...	...	...
DE	DESD ENGINEER	...	...	...	...	...	...	...	...	...	...
YC	MMS Y-12 CAPITAL	58.70	58.70	58.70	...	...	...	...	58.70	39.75	54.08
YE	MMS Y-12 EXPENSE	56.00	56.00	56.00	...	...	...	...	56.00	39.00	66.50
XC	MMS X-10 CAPITAL	58.70	58.70	58.70	...	...	...	...	58.70	39.93	39.93
XE	MMS X-10 EXPENSE	56.00	56.00	56.00	...	...	...	...	56.00	38.32	38.32
KC	MMS K-25 CAPITAL	58.70	58.70	58.70	...	...	...	...	58.70	40.75	40.75
KE	MMS K-25 EXPENSE	56.00	56.00	56.00	...	...	...	...	56.00	47.49	47.49
AE	ARCHITECT ENGINEER	...	...	...	55.00	55.00	55.00	...	...	...	...
EA	ARCHITECT ENGINEER	...	...	...	65.00	65.00	65.00	...	...	...	...
ER	ENG/ENVIRONMENTAL	...	...	...	75.00	75.00	55.00	...	...	...	...
PA	PURCH. BUYER, CAP	...	...	...	...	...	...	50.25	...	...	...
PB	PURCH. BUYER, EXP	...	...	...	...	...	...	70.00	...	...	...
PC	PROCUR. COORD. CAP	...	...	...	...	...	...	51.93	...	...	...
PD	PROCUR. COORD. EXP	...	...	...	...	...	...	64.25	...	...	...
VQ	VENDOR QUALITY	...	...	...	...	...	...	41.77	...	...	...
UC	UNIT COST	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Construction Labor Rates for Cost Estimates

Craft Code	Craft Title	----- Craft Rates by Participant -----									
		42	47	48	49	51	52	53	63	66	67
AW	ASBESTOS WORKER	...	...	...	...	28.34	28.34	...	32.86	...	...
BM	BOILERMAKER	...	...	...	...	28.13	28.13	...	33.59	...	...
M	BRICKMASON	...	...	...	...	24.13	24.13	...	27.87	...	...
C	CARPENTER	...	...	...	...	24.44	24.44	...	27.77	...	...
F	CEMENT FINISHER	...	...	...	...	20.85	20.85	...	23.14	...	...
E	ELECTRICIAN	...	...	...	...	24.80	24.80	...	29.80	...	...
IW	IRONWORKER	...	...	...	...	26.16	26.16	...	28.91	...	...
L	LABORER	...	...	...	...	16.80	16.80	...	18.82	...	...
MM	MILLWRIGHT	...	...	...	...	24.23	24.23	...	28.65	...	...
OP	OPERATING ENGINEER	...	...	...	...	24.02	24.02	...	28.55	...	...
P	PAINTER	...	...	...	...	23.45	23.45	...	26.78	...	...
PF	PIPEFITTER	...	...	...	...	24.91	24.91	...	29.69	...	...
R	ROOFER	...	...	...	...	19.40	19.40	...	20.07	...	...
SM	SHEETMETAL WORKER	...	...	...	...	25.43	25.43	...	29.43	...	...
SF	SPRINKLER FITTER	...	...	...	...	27.46	27.46	...	32.81	...	...
TD	TRUCK DRIVER	...	...	...	...	18.20	18.20	...	20.44	...	...
WH	WAREHOUSEMAN	...	...	...	...	...	...	...	19.29	...	...
MA	MK-F MONTR & ESCORT	...	...	...	...	...	...	...	14.00	...	14.00
MB	MK-F PROCUREMENT	...	...	...	...	...	...	...	54.93	...	54.93
MC	MK-F CONSTR ENGRNG	...	...	...	...	...	...	...	54.05	...	54.05
MH	MK-F E. S. & H.	...	...	...	...	...	...	...	47.06	...	47.06
MO	MK-F OFFICE ENGRNG	...	...	...	...	...	...	...	51.57	...	51.57
MP	MK-F PROJECT CONTROL	...	...	...	...	...	...	...	47.36	...	47.36
MR	MK-F CONSTR SUPERVEN	...	...	...	...	...	...	...	54.05	...	54.05
MQ	MK-F Q. A.	...	...	...	...	...	...	...	54.10	...	54.10
HA	HAZWAB NON-EXEMPT	...	...	...	...	...	...	...	...	...	...
HE	HAZWAB EXEMPT	...	...	...	...	...	...	...	...	...	...
DE	DESD ENGINEER	...	...	...	...	...	...	...	...	...	...
YC	MSES Y-12 CAPITAL	54.08	58.70	58.70	58.70	...	...	...	...	...	...
YE	MSES Y-12 EXPENSE	66.50	56.00	56.00	56.00	...	...	...	...	...	...
XC	MSES X-10 CAPITAL	39.93	58.70	58.70	58.70	...	...	...	...	...	...
XE	MSES X-10 EXPENSE	38.32	56.00	56.00	56.00	...	...	...	...	...	...
KC	MSES K-25 CAPITAL	40.75	58.70	58.70	58.70	...	...	...	...	...	...
KE	MSES K-25 EXPENSE	47.49	56.00	56.00	56.00	...	...	...	...	...	...
AE	ARCHITECT ENGINEER	...	...	...	...	...	...	...	...	...	...
EA	ARCHITECT ENGINEER	...	...	...	...	...	...	...	...	...	...
ER	ENG/ENVIRONMENTAL	...	...	...	...	...	...	...	...	...	...
PA	PURCH. BUYER, CAP	...	...	...	...	...	...	...	...	...	...
PB	PURCH. BUYER, EXP	...	...	...	...	...	...	...	...	...	...
PC	PROCUR. COORD. CAP	...	...	...	...	...	...	...	...	...	...
PD	PROCUR. COORD. EXP	...	...	...	...	...	...	...	...	...	...
VQ	VENDOR QUALITY	...	...	...	...	...	...	...	...	...	...
UC	UNIT COST	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Construction Labor Rates for Cost Estimates

Craft Code	Craft Title	Craft Rates by Participant -----			
		77	78	81	99
AW	ASBESTOS WORKER	...	...	...	1.00
BM	BOILERMAKER	...	...	...	1.00
M	BRICKMASON	...	...	...	1.00
C	CARPENTER	...	...	...	1.00
F	CEMENT FINISHER	...	...	...	1.00
E	ELECTRICIAN	...	...	...	1.00
IW	IRONWORKER	...	...	...	1.00
L	LABORER	...	...	...	1.00
MW	MILLWRIGHT	...	...	...	1.00
OP	OPERATING ENGINEER	...	...	...	1.00
P	PAINTER	...	...	...	1.00
PT	PIPEFITTER	...	...	...	1.00
R	ROOFER	...	...	...	1.00
SM	SHEETMETAL WORKER	...	...	...	1.00
SF	SPRINKLER FITTER	...	...	...	1.00
TD	TRUCK DRIVER	...	...	...	1.00
WH	WAREHOUSEMAN	...	...	...	1.00
MA	MK-F MOTOR & ESCORT	...	...	...	1.00
MB	MK-F PROCUREMENT	...	...	...	1.00
MC	MK-F CONSTR ENGINEG	...	...	...	1.00
MH	MK-F E. S. & H.	...	...	...	1.00
MO	MK-F OFFICE ENGINEG	...	...	...	1.00
MP	MK-F PROJECT CONTROL	...	...	...	1.00
MR	MK-F CONSTR SUPERVEN	...	...	...	1.00
MQ	MK-F Q. A.	...	...	...	1.00
HA	HAZWRAF NON-EMERG	35.00	...	...	1.00
HE	HAZWRAF EMERG	75.00	...	...	1.00
DE	DESD ENGINEER	...	63.00	...	1.00
YC	MSES Y-12 CAPITAL	...	...	54.08	1.00
YE	MSES Y-12 EXPENSE	...	...	66.50	1.00
XC	MSES X-10 CAPITAL	...	...	39.93	1.00
XE	MSES X-10 EXPENSE	...	...	38.32	1.00
KC	MSES K-25 CAPITAL	...	...	40.75	1.00
KE	MSES K-25 EXPENSE	...	...	47.49	1.00
AE	ARCHITECT ENGINEER	...	...	...	1.00
EA	ARCHITECT ENGINEER	...	...	...	1.00
ER	ENG/ENVIRONMENTAL	...	...	...	1.00
FA	PURCH. BUYER, CAP	...	...	...	1.00
FB	PURCH. BUYER, EXP	...	...	...	1.00
FC	PROCUR. COORD. CAP	...	...	...	1.00
FD	PROCUR. COORD. EXP	...	...	...	1.00
VQ	VENDOR QUALITY	...	...	...	1.00
UC	UNIT COST	1.00	1.00	1.00	1.00

Additive Values

Participant	----- Indirect Mark-up Percentages -----				----- Sales Tax -----					
	General Contractor		Subcontractor		Material		Large Single Item		Professional Services	
	Material	Labor	Material	Labor	%	\$	%	\$	%	\$
21	3.00 %	0.00 %	3.00 %	0.00 %	8.50	0	6.00	40	0.00	0
22	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0
31	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0
41	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0
42	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0
51	20.00 %	20.00 %	26.00 %	26.00 %	8.50	0	6.00	40	0.00	0
52	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0
63	20.00 %	20.00 %	20.00 %	20.00 %	8.50	0	6.00	40	0.00	0
67	11.00 %	11.00 %	11.00 %	11.00 %	0.00	0	0.00	0	0.00	0
81	0.00 %	0.00 %	0.00 %	0.00 %	8.50	0	6.00	40	0.00	0

Escalation Rates

Fiscal Year	Escalation Rate
1993	2.0 %
1994	2.6 %
1995	2.8 %
1996	3.0 %
1997	3.1 %
1998	3.3 %
1999	3.1 %
2000	3.1 %
2001	3.1 %
2002	3.1 %

Discipline Code*

Code	----- Title -----	Code	----- Title -----
A	ARCHITECTURAL	B	CHEMICAL PROCESS
C	CIVIL AND SITE	D	MACHINE DESIGN
E	ELECTRICAL	G	PROCESS DESIGN
H	ENVIRONMENTAL CONTROL	I	INSTRUMENTATION
K	RESOURCE PLANNING & CONTROL	L	COMPUTER APPLICATIONS
M	MECHANICAL DESIGN	N	NUMERICAL CONTROL
O	OTHER	P	ENGINEERING MECHANICS (PIPING)
Q	PROCUREMENT/ COORDINATION	S	STRUCTURAL
T	TOOL DESIGN	U	PROJECT ENGINEERING
V	ESTIMATING & SCHEDULING	W	CONSTRUCTION ENGINEERING
X	ENGINEERING	Y	SAFETY ANALYSIS

Cost Codes

Code	----- Title -----
1000	LAND AND LAND RIGHTS
2000	IMPROVEMENT TO LAND
3000	NEW BUILDINGS AND ADDITIONS
4000	BUILDING MODIFICATIONS
5000	OTHER STRUCTURE
6000	SPECIAL FACILITIES
7000	UTILITIES
8000	STANDARD EQUIPMENT
9000	CONST SUPPORT SERVICES
9999	ENGINEERING

Funding Types

Code	----- Title -----
L	LINE ITEM 95 ON
M	LINE ITEM TO 95
G	GPP/CE FY95 ON
H	GPP/CE TO FY95
E	EXPENSE
S	SPECIAL (NO ON)
W	WORK FOR OTHERS

Site Codes

Code	----- Title -----
K	K-25
X	X-10
Y	Y-12
O	Other

Cross Out Codes

..... Program Type		 Project Type		 Phase of Work	
Code	Title	Code	Title	Code	Title
00		00		00	
01	RA	01	MANAGEMENT	01	MANAGEMENT
02	D & D	02	CHAR/ASSESSMENT	02	CHARACTERIZATION
03	PROGRAM MANAGEMENT	03	S & M	03	DECISION
04	S & M	04	SUPT FACIL	04	DESIGN
05	LANDLORD	05	EARLY ACTION	05	PROCUREMENT
06	WM	06	CERCLA P/T	06	ACT/CONST
		07	RCRA P/T	07	VERIFY
		08	T S & D	08	O & M
				09	S & M
				10	TREAT/DISPOSAL

Overhead Rates

----- Material -----

Applied to Material:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	38.000 %	45.000 %	45.700 %	...
LINE ITEM TO 95	...	...	...	...
GPP/CE FY95 ON	38.000 %	45.000 %	45.700 %	...
GPP/CE TO FY95	...	...	...	...
EXPENSE	38.000 %	45.000 %	45.700 %	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	38.700 %	45.700 %	46.400 %	...

----- Central -----

Applied to Labor:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	38.000 %	45.000 %	45.700 %	...
LINE ITEM TO 95	10.000 %	17.000 %	12.000 %	...
GPP/CE FY95 ON	38.000 %	45.000 %	45.700 %	...
GPP/CE TO FY95	10.000 %	17.000 %	12.000 %	...
EXPENSE	38.000 %	45.000 %	45.700 %	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	38.700 %	45.700 %	46.400 %	...

--- Subcontractor ---

Applied to Labor & Material:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	...	...	...	...
LINE ITEM TO 95	...	...	...	...
GPP/CE FY95 ON	6.050 %	8.700 %	7.370 %	...
GPP/CE TO FY95	...	...	...	...
EXPENSE	6.050 %	8.700 %	7.370 %	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	6.050 %	8.700 %	7.370 %	...

Overhead Rates

----- Plant -----

Applied to Labor:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	38.000 %	45.000 %	45.700 %	...
LINE ITEM TO 95	10.000 %	17.000 %	12.000 %	...
OFF/CE FY95 ON	38.000 %	45.000 %	45.700 %	...
OFF/CE TO FY95	10.000 %	17.000 %	12.000 %	...
EXPENSE	38.000 %	45.000 %	45.700 %	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	38.700 %	45.700 %	46.400 %	...

-- Mantrap/D&RD --

Applied to Labor:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	29.400 %	29.400 %	29.400 %	...
LINE ITEM TO 95	29.400 %	29.400 %	29.400 %	...
OFF/CE FY95 ON	29.400 %	29.400 %	29.400 %	...
OFF/CE TO FY95	29.400 %	29.400 %	29.400 %	...
EXPENSE	29.400 %	29.400 %	29.400 %	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	30.100 %	30.100 %	30.100 %	...

----- Other -----

Applied to Labor & Material:

	K-25	X-10	Y-12	Other
Funding Type...				
LINE ITEM 95 ON	...	...	...	...
LINE ITEM TO 95	...	...	...	...
OFF/CE FY95 ON	...	...	...	...
OFF/CE TO FY95	...	...	...	...
EXPENSE	...	...	...	...
SPECIAL (NO ON)	...	...	...	...
WORK FOR OTHERS	...	...	...	...

K/CSD/TM-102
Revision 1
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