Requirements for Modifying a Spreadsheet for ERT Import

1.0 INTRODUCTION

ERT has the ability to import data for manual test methods from a specific spreadsheet template which has three methods of application. One method is to enter the Field data directly into the template. The second method is to reformat the test companies Field Data collection spreadsheet to meet the structure in the spreadsheet template. The third method is to merge the template with the spreadsheet used by the stack tester for field data collection. The following describes the procedure for you to reformat your test companies spreadsheet and the procedure for you to incorporate this spreadsheet template into your custom spreadsheet. Both methods will allow you to use the import function of ERT. These instructions assume you have a good understanding of working with spreadsheets, specifically the ability to name ranges, create links from one cell to another and to import pages from one spreadsheet into another spreadsheet. For further information on how to do these tasks, please consult the Microsoft Excel help or look on-line.

2.0 ERT SPREADSHEET TEMPLATE OVERVIEW

The ERT spreadsheet template contains an instructions page, nine pages for entering run data, a page that is used by ERT for importing data and a page that presents the update history of the template.

2.1 Instructions Page

This page contains instructions for using the template and for merging the template into an existing Field Data collection spreadsheet. The requirements for each section are included.

2.2 Data Sheet 1 through Data Sheet 9

These pages are for data entry for each specific run. These data sheets are comparable to Figure 5-3 in EPA Method 5 as published in 40CFR60 Appendix A-3 except for minor arrangement of the data elements and minor changes in the data elements listed. The template is designed to hold 9 test runs. If more runs are needed, a new spreadsheet is required to be used for each group of up to 9 runs. The run data for the pages are categorized as header data, located at the top of each page and point data located at the bottom of each page. Named ranges have been created for the point data on each data sheet. The named ranges are *Run1PointData, Run2PointData*, … and *Run9PointData*. ERT uses these names during the import process. The descriptors to the left of each header data field include comments (which will appear when the cursor is held over the descriptor cell) that provide greater information on the expected content of that field. The column headers for the point data also include comments to provide greater information on the expected content of that column.

2.3 HeaderExport Page

This page is used to arrange the header data into a standardized tabular data base format such that it is properly interpreted by the ERT during the import process. The fields on this page are linked to the header data from the Data Sheet pages. The named range *PointHeaders* are given to this data. It is used during the ERT import process.

2.4 Version Page

This page provides information on the date and changes which were made to update the spreadsheet template.

2.5 Spreadsheet Template Use

The spreadsheet template may be used without modification as an intermediate data entry tool. Unlike many Field Data collection spreadsheets, the ERT Spreadsheet Template performs no mathematical calculations. However, by entering the appropriate data collected during the field sampling campaign into the data fields, the data entered will be imported into the correct fields in the ERT where those calculations specified in EPA Method 5 are performed and the flue gas and emissions data are generated.

3.0 MODIFYING YOUR CUSTOM SPREADSHEET

ERT uses a combination of page names and named ranges to import data from the template into the ERT data tables. The cells in the ranges must be in a specific order for the data to be imported correctly. The ERT spreadsheet template has the cells in the order required for importing. There are two ways of modifying your spreadsheet for the ERT import.

1. Modify the existing structure of your spreadsheet to match the ERT template, or

2. Import the ERT template into your spreadsheet and link your data to the template cells.

3.1 Modifying the existing spreadsheet's structure

This will require you to modify your spreadsheet to match the ERT template.

1. For each source test performed, you must have one page for the point data. The ERT can import the point data for up to nine runs. You will need to rename these pages to Data Sheet 1, Data Sheet 2, Data Sheet 3 etc. Data Sheet 9 is the highest named page that the ERT recognizes.

2. The columns for your point data on each sheet must be in the same order as the ERT template. Any ERT template point data column that is not on your spreadsheet will have to be added. There cannot be any additional columns between the columns shown in the Data Sheets.

3. A named range for the point data on each data sheet. These must be named the same as in the ERT template, *Run1PointData, Run2PointData*, and so on up to *Run9PointData.*

4. A sheet needs to be created named *HeaderExport*. This sheet must contain the same fields in the same order as the *HeaderExport* sheet in the ERT template. You must create the named range *PointHeaders* that includes these columns. You will link the cells from your pages to the appropriate cells on this sheet. Header data from run one will go on the first row under the column headers. Header data from the second and third runs will go in the second and third rows.

Your spreadsheet should now be ready to be imported into ERT.

3.2 Import the ERT template into your spreadsheet and link the cells

The steps required to modify your custom spreadsheet include:

1. Importing the ERT spreadsheet template into your spreadsheet

2. Linking data cells from your spreadsheet to the imported ERT template pages

This involves importing the ERT template into your spreadsheet and then linking the appropriate fields from your spreadsheet to the fields on the template pages

1. *Import Data Sheet 1, Data Sheet 2, Data Sheet3,etc. up to Data Sheet 9* and *HeaderExport* pages into your custom spreadsheet. To do this, open your spreadsheet and the ERT template. In the ERT template hold the shift key down and click on the tab for *Data Sheet 1* and then the tab for *HeaderExport*. All tabs except *Instructions* and *Version* will be highlighted. Right click on the tab and select "move/copy". Select your custom spreadsheet from the "To book" picklist. Be sure and check "Create a copy" or these sheets will be moved to your spreadsheet instead of copied. Select the ok button. The ERT template sheets will now be sheets in your custom spreadsheet. If you do not need all nine Data Sheets, you may delete these sheets.

2. Link your data cells with the data cells in the ERT template data sheets. Link the header data and point data for each run to the appropriate ERT data sheet. For example link your first run's data to the cells in *Data Sheet 1*. You do not have to link data to the *HeaderExport* sheet. This sheet already has the links to the appropriate header data on the data sheet pages.

Once all of the cells in your data sheets are linked to the imported ERT template sheets, your spreadsheet will be ready to be imported into ERT.