Guidelines for Importing Storage Tank Data into the AER Reporting Tool (CY2020 and after)

December 2020

Introduction

The AER Reporting Tool was designed to accommodate the upload of storage tank emissions text output from US EPA TANKS 4.0.9d (EPA TANKS). The EPA TANKS program was developed based on the storage tanks emissions methodology presented in EPA AP-42, Volume I, Chapter 7, November 2006. This methodology was updated in June 2020. Currently, there is no EPA software available for reporters to use to estimate storage tank emissions based on the June 2020 version of EPA AP-42, Volume I, Chapter 7.

In order to assist reporters with batch loading storage tank emissions into the AER Reporting Tool, beginning with the 2020 emissions reporting year, the AER Reporting Tool has been updated to allow the upload of storage tank emissions in Excel format. Since reporters are familiar with the EPA TANKS output format, for convenience, the AER Reporting Tool Excel file format is based on the same output format.

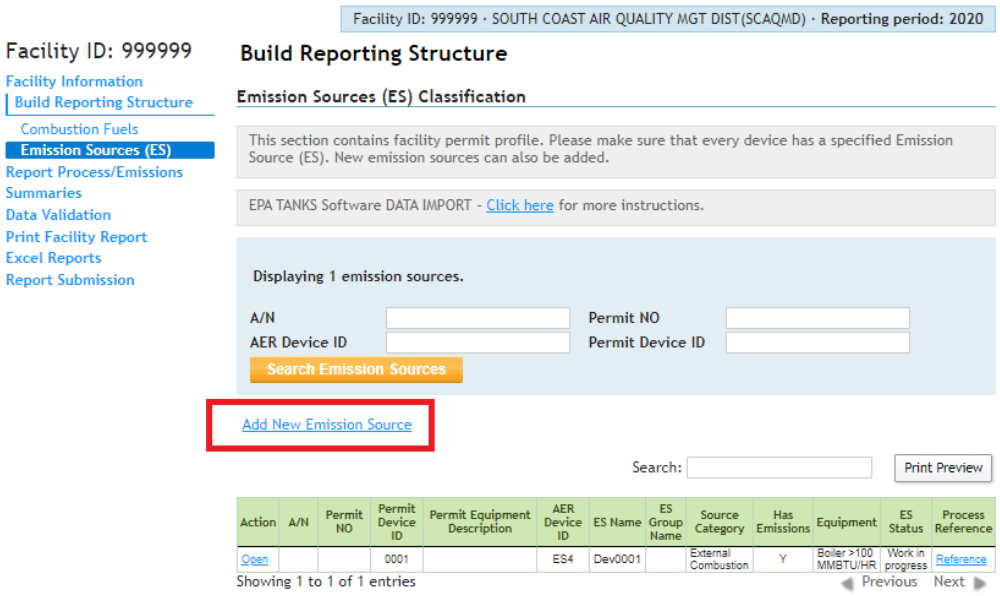
Guidance for uploading storage tank emission batch files has been arranged as follows:

1. Adding an Emission Source Before Uploading Tank Data
2. Setting Up the Excel Batch File
3. Importing Tank Data into AER Reporting Tool
4. Appendix

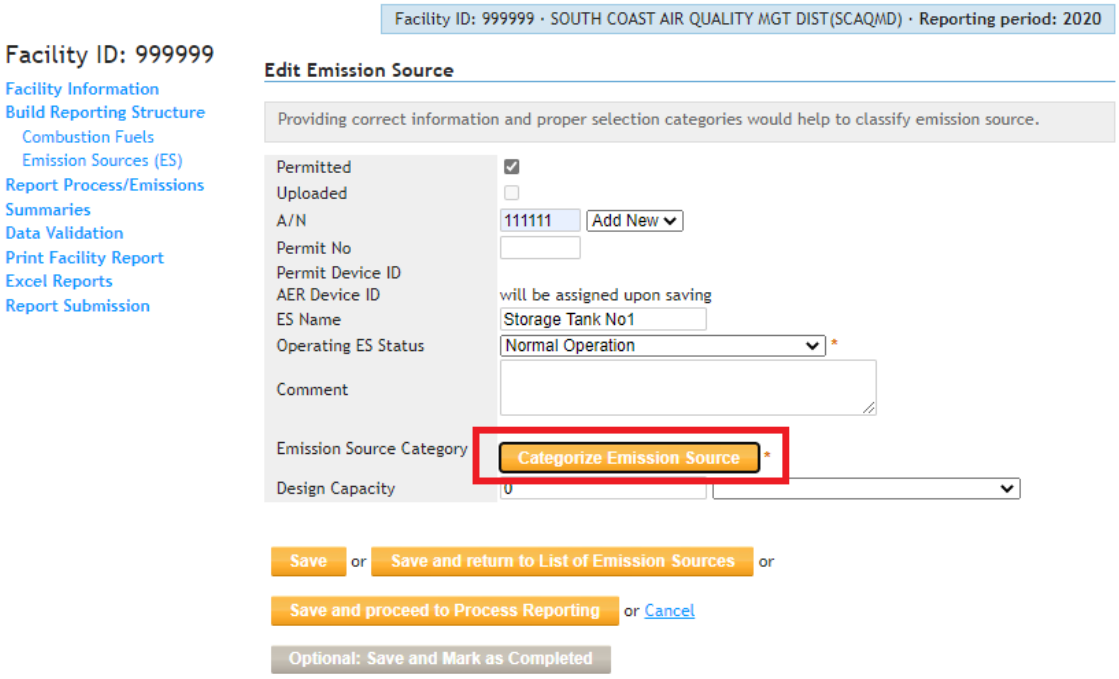
1. Adding an Emission Source Before Uploading Tank Data

The AER Reporting Tool is based on devices and processes. A device and process must be defined before emissions can be assigned. Equipment permitted by the South Coast AQMD are preloaded in the AER Reporting Tool when facilities are initially notified to report emissions. If the storage tank has not been preloaded, the reporter will need to add the storage tank. New devices can be added as follows:

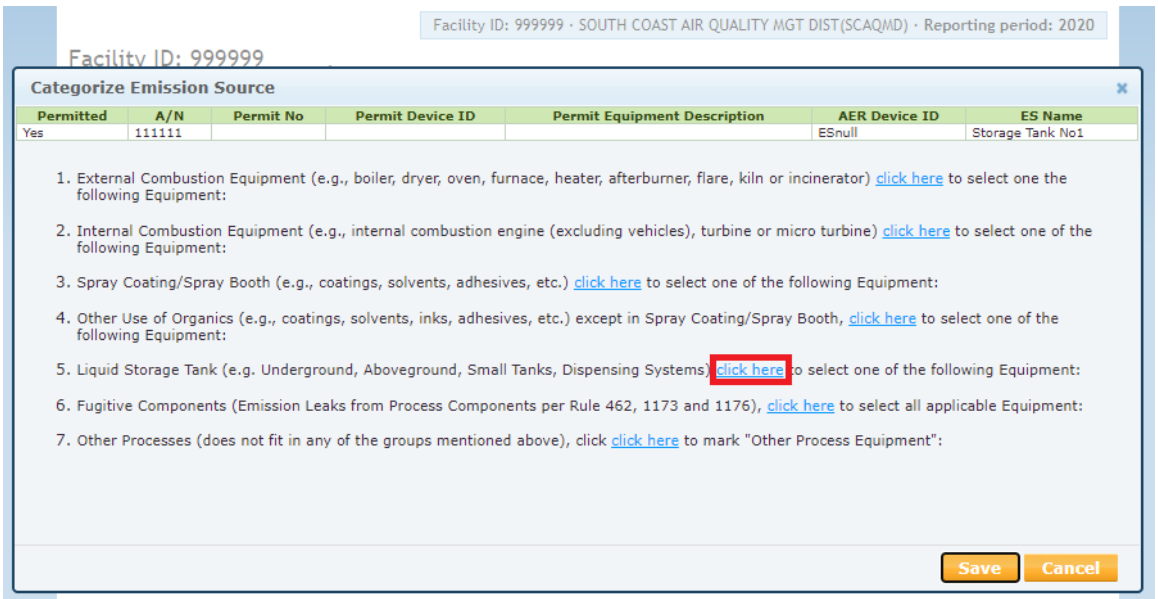
a. On the left-hand side under “Build Reporting Structure” and “Emission Source (ES),” click on the “Add New Emission Source.”



b. Add source information and categorize the source using the orange "Categorize Emission Source" button.



c. Click on the “Click Here” link under Source #5 Storage Tanks.



d. Check the “Storage tank- will upload file with estimated emissions” box, then choose the “Save” button.

2. Setting Up the Excel Batch File

a. A template of the storage tank batch file in Excel format can be found on the AER webpage.

b. As stated previously, the storage tank emissions batch file format for the AER Reporting Tool is based on the EPA TANKS, Version 4.0.9.a Excel output file. The format of the

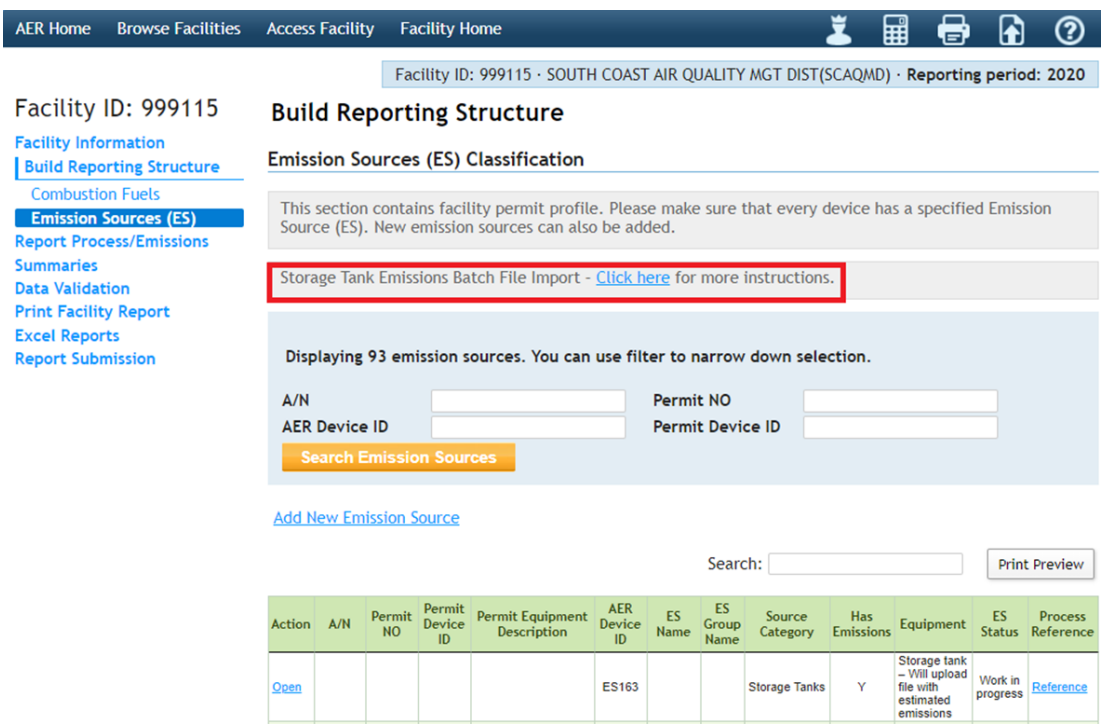
cells follows the formatting detailed in Appendix A of the User's Guide to TANKS, Storage Tank Emissions Calculation Software, Version 4.0, September 30, 1999.

c. The USER ID for the storage tanks must match the AER Device ID in the AER Reporting Tool for the emissions to be populated correctly.

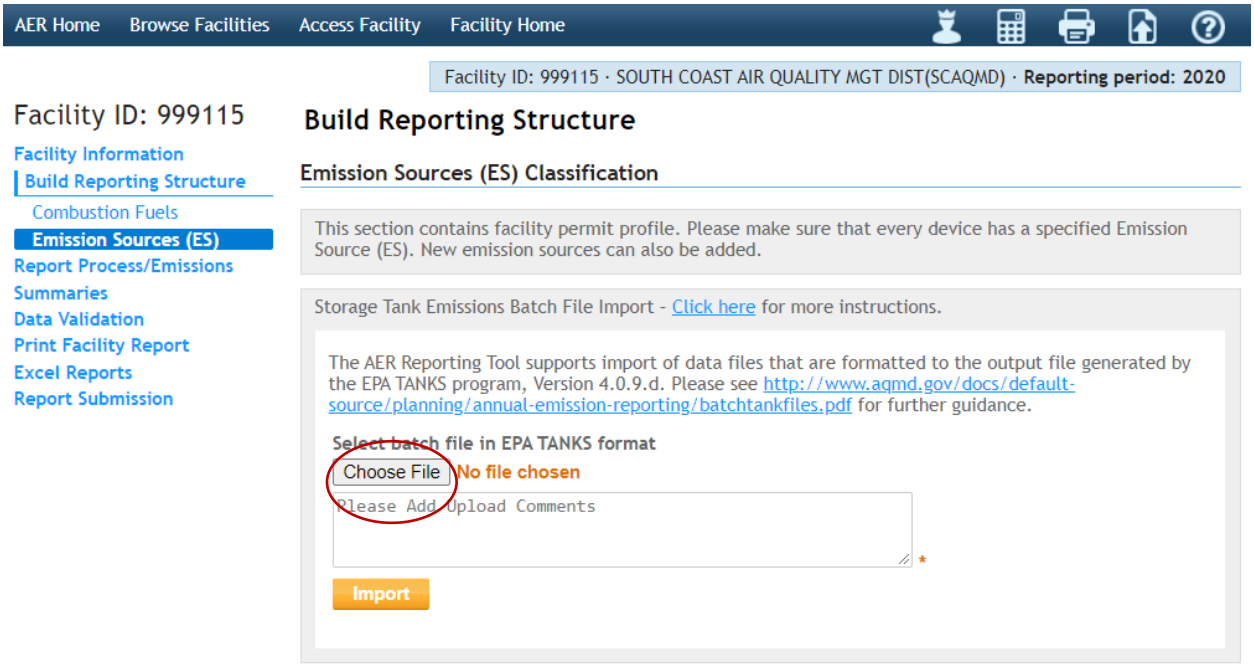
	A	B	C	D	E	F	G	H	I	J	K	L
1	ID	MIX ID	PRIMARY	NAME	CAS	MONTH	TANK_TYPE	USER ID	CITY	STATE	COMPANY	DESC
2	18	1	TRUE	Methyl alcohol	00067-56-1	Annual	Horizontal Tank	ES10	Los Angeles C.O.	California		
3	5	1	TRUE	Gasoline (RVP 7)		Annual	Internal Floating Roof Tank	ES12	Los Angeles C.O.	California		Sample IFRT#1
4	13	1	TRUE	Ethylbenzene	00100-41-4	July	Vertical Fixed Roof Tank	ES11	Los Angeles C.O.	California		Sample VFRT #3
5	13	2	TRUE	Toluene	00108-88-3	August	Vertical Fixed Roof Tank	ES11	Los Angeles C.O.	California		Sample VFRT #3
6	5	1	FALSE	Benzene	00071-43-2	Annual	Internal Floating Roof Tank	ES12	Los Angeles C.O.	California		Sample IFRT#1
7	5	1	FALSE	Unidentified Components	00071-43-2	Annual	Internal Floating Roof Tank	ES12	Los Angeles C.O.	California		Sample IFRT#1

3. Importing Tank Data into AER Reporting Tool

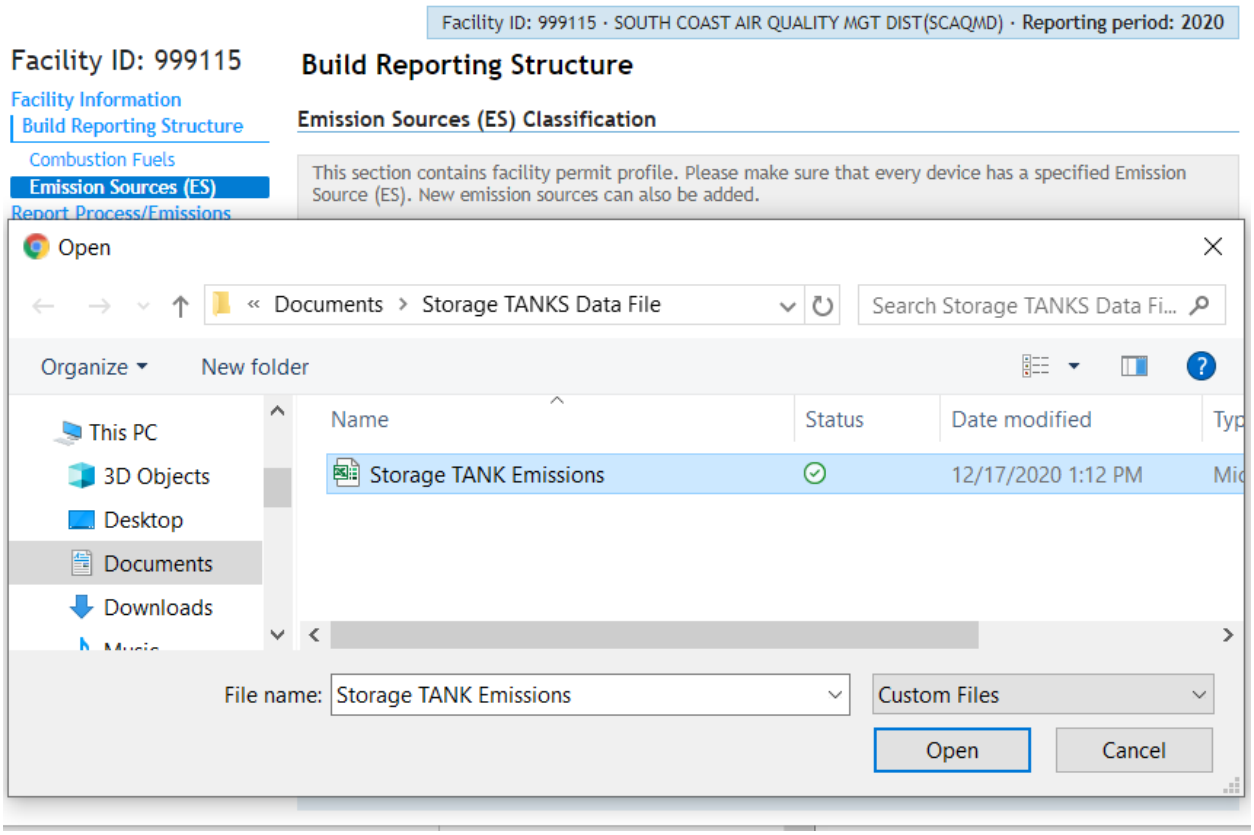
a. Under "Build Reporting Structure" in the AER Reporting Tool page, the "Click here" link for Storage Tank Emissions Batch File Import presents brief instructions for uploading storage tank emissions into the AER Reporting tool.



b. Use the “Choose File” to browse for the storage tank emissions output file.

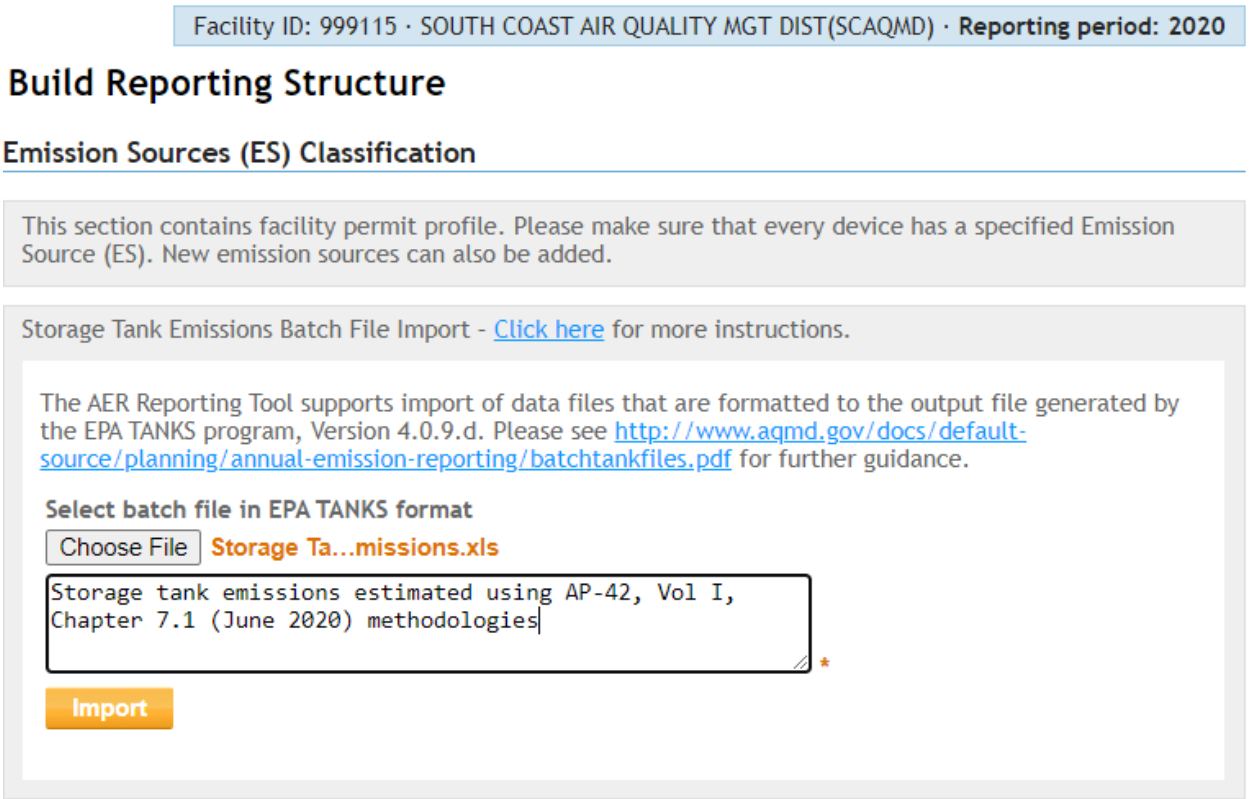


c. Once the correct excel file or text file has been chosen, highlight the file and use the “Open” button to attach it.



d. Click on “Import” button to import the tank data into the AER Reporting Tool.

e. In the comment section, specify what methodology/modeling program was used to estimate emissions in the output file.



Once storage tank emissions data have been uploaded into the AER tool, the ES profile is complete.

AER Home | Browse Facilities | Access Facility | Facility Home

Facility ID: 999115 · SOUTH COAST AIR QUALITY MGT DIST(SCAQMD) · **Reporting period: 2020**

Facility ID: 999115

- Facility Information
- Build Reporting Structure
  - Combustion Fuels
  - Emission Sources (ES)
- Report Process/Emissions
  - Combustion
    - External Combustion
    - Internal Combustion
  - Use of organics
    - Spray Coating/Spray Booth
    - Other Use of Organics
  - Storage Tanks
  - Fugitive Components
  - Other Processes
  - Process Upset
- Summaries
- Data Validation
- Print Facility Report
- Excel Reports
- Report Submission

« Back to Emission Source Process Reference

Storage Tanks

Please provide specific information for every process associated with the liquid storage tank Emission Sources including usage, emission factor, and control efficiency (if any). You must select Product stored in storage tank before reporting emissions. Emission data from liquid storage tanks can be imported from EPA TANKS output; or can be accessed for entering data. Detailed instructions are available by clicking on Help icon in the tool bar.

Step 1: Process

Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Equipment	Tank Type	Product	Rule #	SCC
Open	ES163			P1	Storage tank - Will upload file with estimated emissions	Internal Floating Roof Tank	Gasoline (RVP 7)		

Click here to delete this process.

Step 2: Throughput

	Annual Throughput
Open	30,000.00000000 M gal

Step 3: Criteria Emissions (lbs)

Use Default Emission Factors if available.

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	VOC	9.23508633e-2	lbs / M gal	No	Back-calculation		2.77052590e+3

Step 4: Toxic (TAC/ODC) Emissions (lbs)

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
Open	Benzene	71432	1.37079933e-3	lbs / M gal	No	Back-calculation		4.11239800e+1

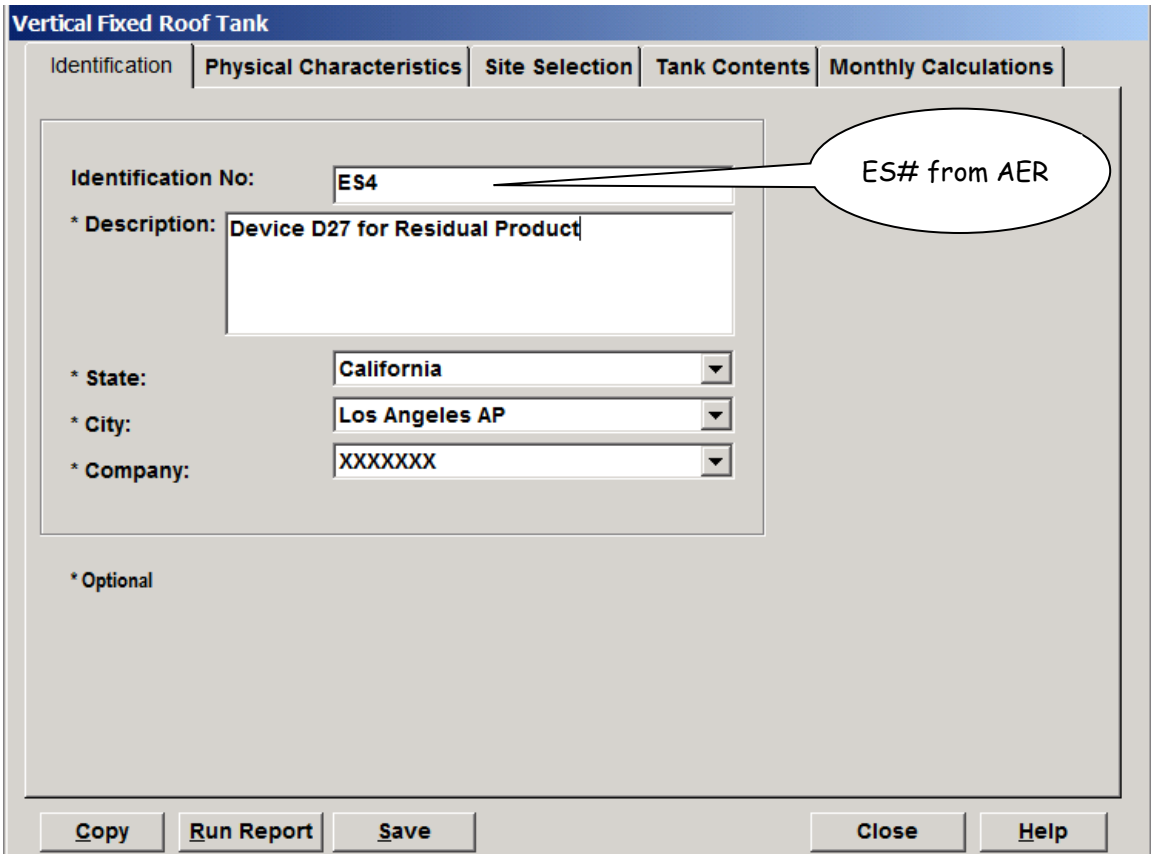
Add New

Appendix

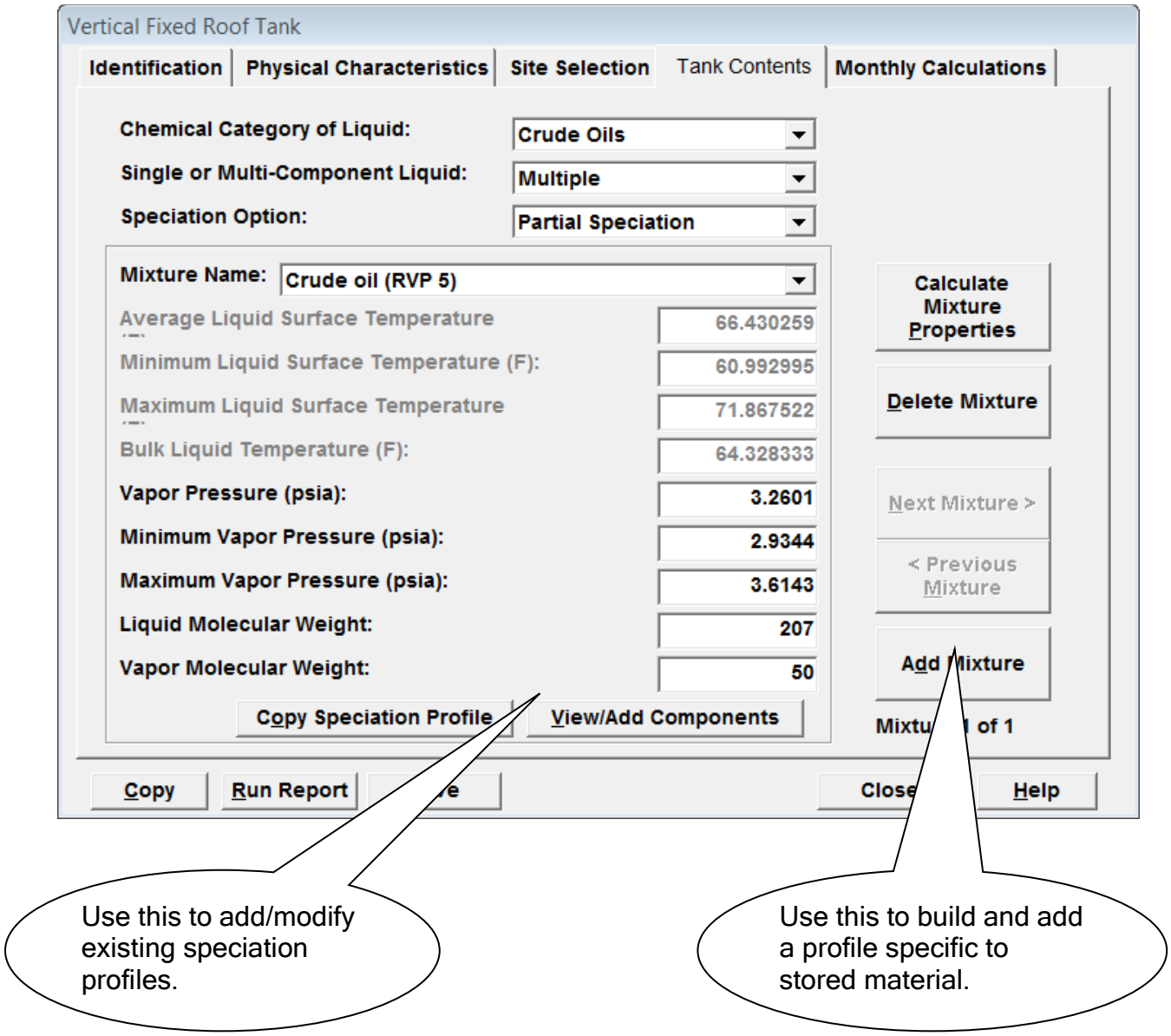
The guidance provided in this Appendix was developed when EPA TANKS reflected the most recent version of AP-42, Chapter 7.1, and the guidance was not updated to reflect the amendments by US EPA to this chapter in June 2020. The guidance herein is provided for historical reference.

Running EPA TANKS Program and Uploading Text Output Files

Use the tanks program as per EPA guidelines keeping the following directions in mind:
Under the IDENTIFICATION tab, enter into the "Identification No." field the AER Device ID (ES #) that is assigned by the AER tool. Use "Description" field to elaborate on the tank as well as its content.



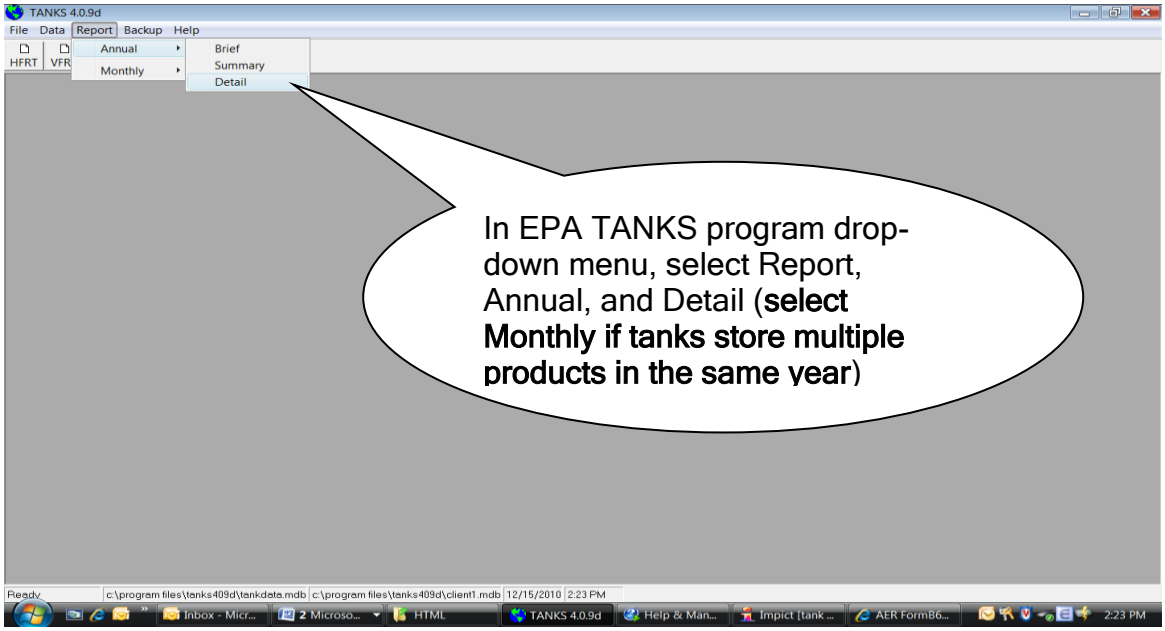
EPA TANKS program offers default speciation profiles for certain petroleum products. User can use this tool to build the specific toxic profile for the tank contents. In order to fully utilize toxic profiles in emission calculations, the stored materials must be identified as "Multi-Component Liquid" and be analyzed with "Partial Speciation" option.

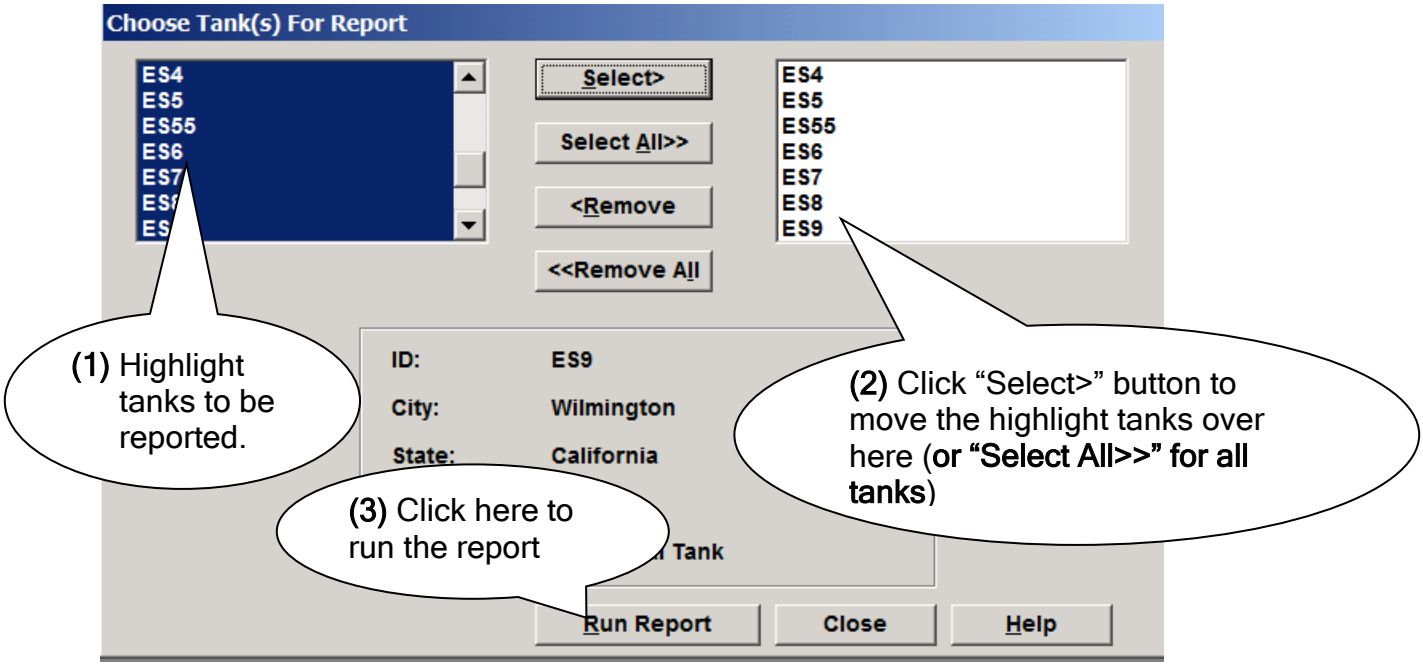


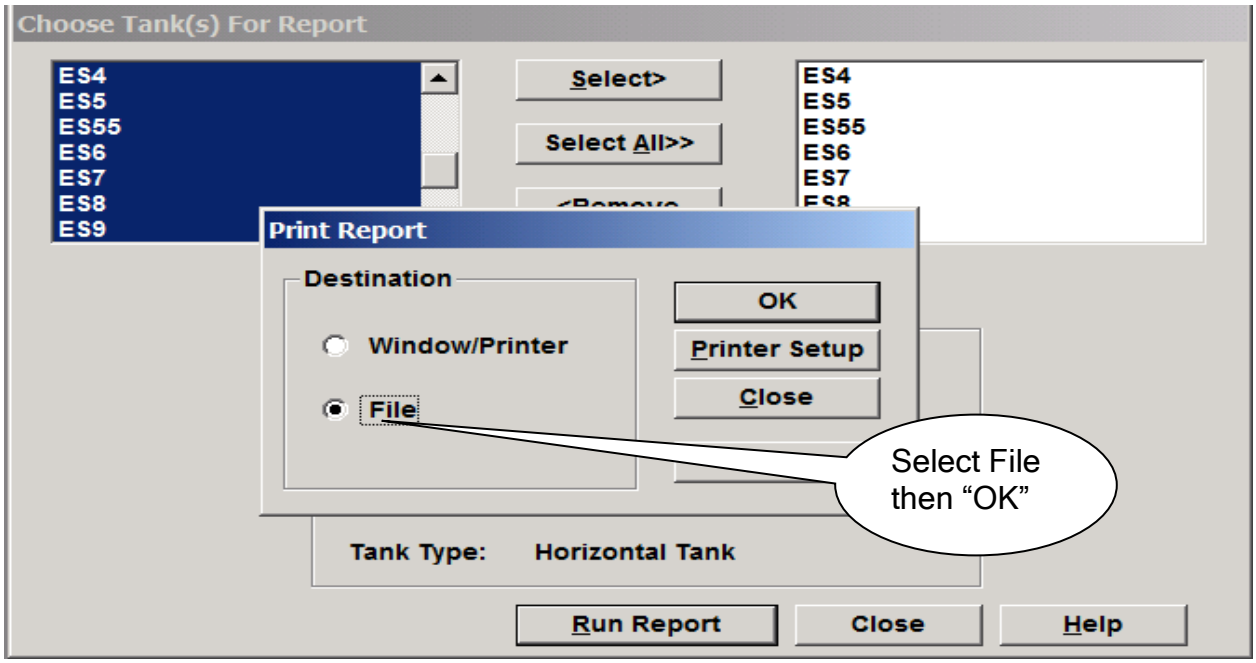
Creating EPA TANKS Data Output File

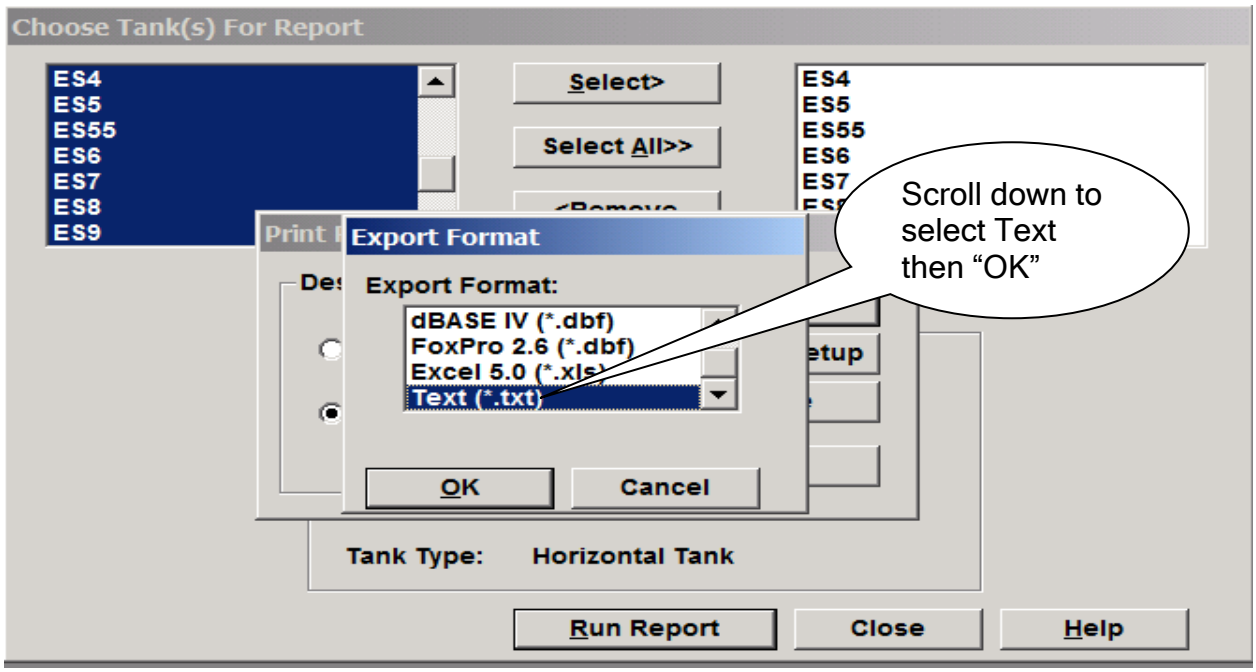
Emission data and results calculated by the EPA TANKS program can either be printed on paper or electronically exported in different format including "text file format", which works best with the AER Reporting Tool. The program also offers user with choices of reporting one tank at a time, selected multiple tanks, or all tanks in one report.

The AER Reporting Tool is currently designed to accept output data file from the EPA TANKS program in text format only (This statement reflects guidance at the time it was developed. For guidance on uploading Excel files in EPA TANKS format, please refer to the main document sections above this Appendix). The series of screenshots below illustrate the procedure to report all tanks in one output file:

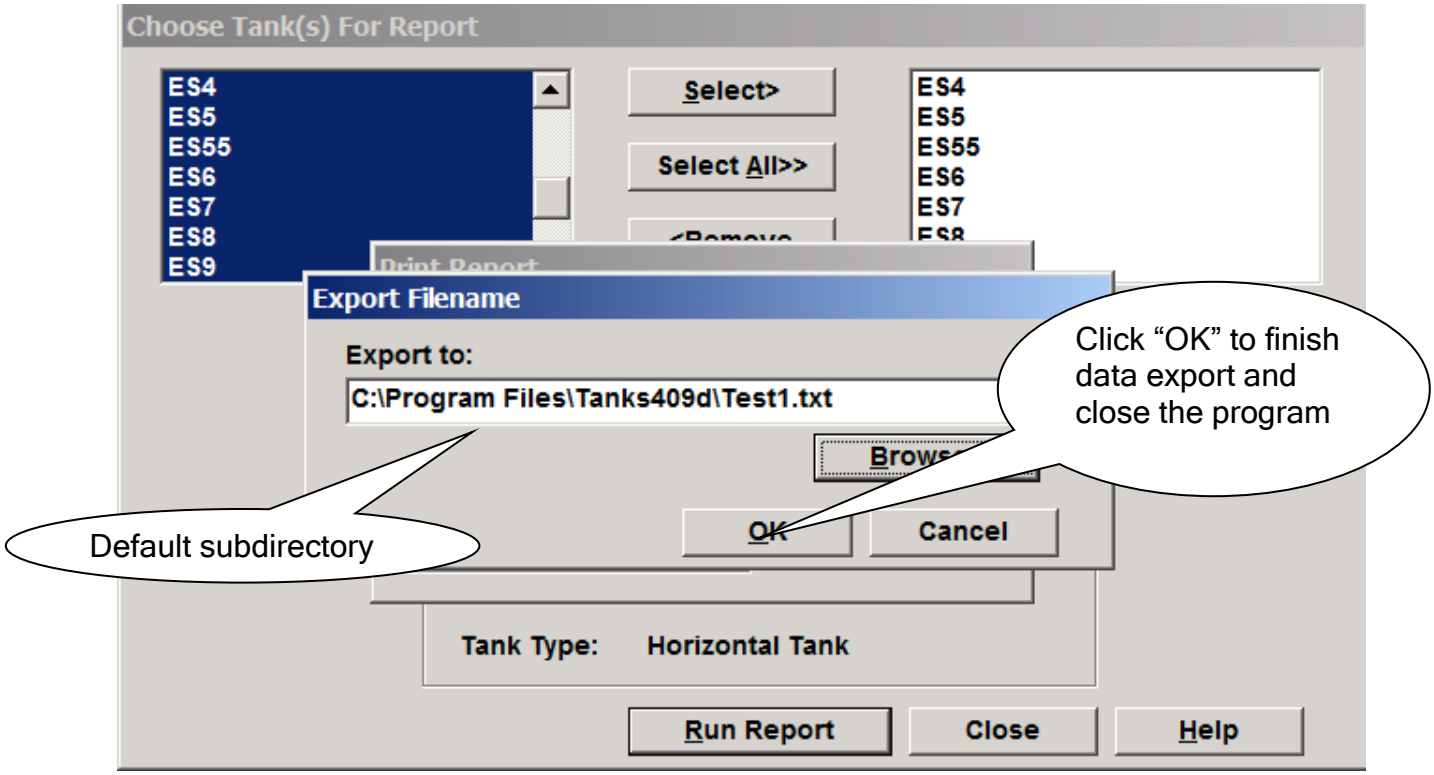

TANKS 4.0.9d
File Data Report Backup Help
HFRT VFR
Annual
Monthly
Brief
Summary
Detail
In EPA TANKS program drop-down menu, select Report, Annual, and Detail (select Monthly if tanks store multiple products in the same year)


Choose Tank(s) For Report
ES4
ES5
ES55
ES6
ES7
Select>
Select All>>
<Remove
<<Remove All
ES4
ES5
ES55
ES6
ES7
ES8
ES9
(1) Highlight tanks to be reported.
ID: ES9
City: Wilmington
State: California
(2) Click "Select>" button to move the highlight tanks over here (or "Select All>>" for all tanks)
(3) Click here to run the report
Run Report
Close
Help





The EPA TANKS program, will ask to export the selected tanks to a file. User can use the "Browse" button to specifically name the file and designate a storing location. If the sub-directory (place to store the text file) is not specified, the program will store the text file in its default sub-directory under Tanks409d as shown in the next image.



Text File Correction

When creating an output text file, the EPA Tanks program assigns a CAS number to "Unidentified Components" which, in turn, is identified by the AER Reporting Tool as another toxic VOC material. In order to avoid importing a duplicate VOC or Toxics emissions, user must manually delete the text line associated with "Unidentified Components" and re-save, and import the new text file into the AER tool.

The following image is a capture of the EPA TANKS output text file. It is best to use MS Windows Note Pad to open the text file. The text line is highlighted. Deleting this line will clear up the duplicate reporting of non-toxic components as toxics.

ES6 - Notepad

File Edit Format View Help

```
"ID","MIX ID","PRIMARY","NAME","CAS","MONTH","TANK_TYPE","USER ID","CITY","STATE","COMPANY","DESC","M
48,1,1,"Gasoline (RVP 9)",,"Annual","External Floating Roof Tank","ES6","Los Angeles AP","California"
48,1,0,"Hexane (-n)","00110-54-3","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Cali
48,1,0,"Benzene","00071-43-2","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Californ
48,1,0,"Toluene","00108-88-3","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Californ
48,1,0,"Ethylbenzene","00100-41-4","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Cal
48,1,0,"Xylene (-m)","00108-38-3","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Cali
48,1,0,"Isopropyl benzene","00098-82-8","Annual","External Floating Roof Tank","ES6","Los Angeles AP"
48,1,0,"1,2,4-Trimethylbenzene","00095-63-6","Annual","External Floating Roof Tank","ES6","Los Angele
48,1,0,"Cyclohexane","00110-82-7","Annual","External Floating Roof Tank","ES6","Los Angeles AP","Cali
48,1,0,"Methyl-tert-butyl ether (MTBE)","01634-04-4","Annual","External Floating Roof Tank","ES6","Lo
48,1,0,"Unidentified Components","01634-04-4","Annual","External Floating Roof Tank","ES6","Los Angel
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