

## Version 4.0 ERT Revisions History

August 2011- April 2012

ERT Version	Date	Revisions
Beta 4.0	8/10/2011	<p>Added the capability for individual users to add target pollutants to an individual ERT project data set. The user is required to input the CAS number and the target pollutant name in order to use this feature.</p> <p>A problem was identified in the spreadsheet HeaderExport page for the Template Spreadsheet used with ERT version 4 beta. The past version has a null value for the InitDGM field instead of a 0. We have corrected this issue. If you have the previous version, you can fix your spreadsheet, you can enter a "0" for the InitDGM for the three runs in the HeaderExport page of the spreadsheet. No changes were made to the ERT. Only the spreadsheet file was updated.</p>
Final 4.0	10/26/2011	<ul style="list-style-type: none"><li>• Put ISO in group for custom method when user checks yes to ISO.</li><li>• Added link to <a href="http://webbook.nist.gov/chemistry/name-ser.html">http://webbook.nist.gov/chemistry/name-ser.html</a> to allow user to search CAS numbers in custom setup.</li><li>• Limited the Industry NAICS code to accept only a 6 digit number. While this is NOT a required field, if anything is entered, it must be six numerical digits.</li><li>• Revised the Latitude and Longitude fields to accept only degrees and decimal degrees with a requirement for 5 or 6 digits after the decimal. In addition could you change the popup to state that the Latitude should be of the format 34.000000° and Longitude should be of the format -87.000000° . The recommended accuracy that the latitude and longitude should be within 10 ft as measured with a GPS</li><li>• Implemented the ability to rename runs, rename run dates, delete runs.</li><li>• Corrected issue when deleting last emission unit issue</li><li>• Corrected issue with custom target compound by requiring user to enter CAS number</li><li>• Recalculated and formatted data to allow presentation of all runs when All Runs button selected.</li><li>• Changed print method to instruct user to "Press Ctrl+P to Print" to all reports to address issue that right click did not work when using runtime version of Access.</li><li>• Added New Run button on ITM Run Results tab.</li><li>• Corrected the error in calculation with ppm.</li><li>• Implemented procedures to submit properly formatted files to CDX system.<ul style="list-style-type: none"><li>○ Changed "Webfire Export" button to "Submit" button</li><li>○ Create zip package for CDX submittal (xml file and zipped PDS)</li><li>○ Brings up old webfire export screen to review/set emissions and process run associations</li></ul></li></ul>

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		<ul style="list-style-type: none"> <li>○ Update submittal history data</li> <li>○ Create file</li> <li>○ Provide options to go to CDX Website or "email".</li> <li>● Added ability to delete multiple runs at a time</li> <li>● Changed system colors for clearer presentation</li> <li>● Revised methods to select PDS file: <ul style="list-style-type: none"> <li>○ Have pds tables match field types</li> <li>○ Pullout/unzip pds from pkg.zip files if selected</li> </ul> </li> <li>● Added help/sys admin button <ul style="list-style-type: none"> <li>○ Show manual</li> <li>○ Show version info</li> <li>○ Show version history</li> <li>○ Show calculations</li> </ul> </li> <li>● Changed Q12 to reflect EPA's new policy on audit samples</li> <li>● Revised Test review button to show test data</li> <li>● Revised Instrumental Test Methods to allow user to pick from earlier runs for: Stack Flow, Moisture, CO2, O2 <ul style="list-style-type: none"> <li>○ Flow &amp; Moisture will always be from Manual method</li> <li>○ CO2 &amp; O2 can be from manual or Method 3a</li> <li>○ Selecting the flow will default all the others to the same run</li> </ul> </li> <li>● Revised Isokinetic methods to be able to pull CO2, O2 from Instrumental Test Methods</li> <li>● Fixed drift report for non O2,CO2 reports</li> <li>● Added capability to perform Performance Standard Tests</li> <li>● Added the capability combine a Performance Standard Test with a compliance test. Allows user to use runs 1 and 2 of 30 min each for two runs for RATA's but to be combined to make 1 run for the compliance test.</li> <li>● Added requirement for user to specify Molecular weight for Custom Target compounds allowing mass emissions to be calculated in Instrumental Methods.</li> <li>● Added methods: 102, 103, 104, 108, 0061, 315, 316. Added target compounds to Method 0011.</li> <li>● Added web links, method report to admin screen.</li> </ul>
4.0	12/28/2011	Updated the ERT data entry spreadsheet used to import isokinetic field data to display three significant digits and sets the initial DGM field to 0 to produce a successful import.

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4.0 con't.	2/3/2012	<ul style="list-style-type: none"> <li>• Added county in test plan.</li> <li>• Added the following fields to XML file: Facility Name, City, State, County, FRS, State ID, AFS Number, Testing Company, Testing Company Project Number, Permitted State Source ID, Permitted State Name, Last Run Date.</li> <li>• Fixed XML Export to agree with reviewed export screen</li> <li>• Revised Facility Tester Page: <ul style="list-style-type: none"> <li>○ Made the FRS a required field</li> <li>○ Provide a Pop-Up help button (Blue question mark bullet) for Latitude/Longitude stating:</li> <li>○ Provide the location of the emissions release point. Enter latitude and longitude in decimal format (i.e. 32.123456) with accuracy of at least five decimal places (10 ft).</li> </ul> </li> <li>• Revised Q5a help text revised to state "This description should describe the process and associated controls to differentiate the facility from, or document similarities with others in the same SCC. A summary text description should be inserted in the box provided and more detailed description and process flow diagrams attached in a separate file."</li> <li>• Revised "Signatures" page (Test Plan and Test Report pages) Change Tab title from "Signatures" to "Pre Submission Review" Change. Date Signed to Date Reviewed. Add field for email address for both Permitted Facility Representative and Testing Company Representative</li> <li>• On the attachments page, there are revised recommendations for generating smaller sized files to reduce the total file size of the ERT files.</li> <li>• We added to and from email addresses for all points of contacts, reviewers, signers, and submitters.</li> <li>• Changed the "Instrument Response" on the ITM Run Data page should be changed to "System Response".</li> <li>• Fixed Test plan and Test Report to show attachment list from old .mdb files.</li> <li>• Added button on Run Data Methods screens that allows for the use to view/edit the location information for that location without having to go back to the test plan screens.</li> </ul>
	4/4/2012	<ul style="list-style-type: none"> <li>• If the user has provided process data, users will be required to associate every test run with one of the entered process runs.</li> <li>• Creates a populated XML file when submission package is generated even when process data are not available.</li> <li>• The submittal history is updated and saved in the created submission zip file.</li> <li>• Increased the number of test runs from three to nine that can be imported from the spreadsheet template.</li> <li>• Corrects a calculation issue in the isokinetic methods when the oxygen percentage entered is 20.9 or carbon dioxide concentration is 0.</li> <li>• The use of "Save As" will now create .accdb instead of .mdb files thereby allowing generation of printable test</li> </ul>

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		<p>plans and test reports. "Save As" requires the use of a different name than the current PDS.</p> <ul style="list-style-type: none"> <li>● Improved processing of Performance Specification reports: Added fields to handle the PST methods <ul style="list-style-type: none"> <li>○ Fixed relative accuracy report, now returns 0 instead of "" if null result.</li> <li>○ Added Relative Accuracy Results to the reports pulldown menu. Grouped reports by location and method. Created a new page for each group.</li> <li>○ Made "lb/mmbtus" on PST report be 4 significant digits</li> <li>○ To report PST's results, emissions concentrations of ppm, lb/Hr, or lb/MMBtu O<sub>2</sub> are not required.</li> </ul> </li> </ul>
	4/26/2012	<ul style="list-style-type: none"> <li>● The ERT could not generate the proper file when the "Pollutant Units", process "Measure", process "Material" or process "Action" had no information. To allow the ERT to generate a properly formatted CDX file, we added a means to populate the "Pollutant Unit" of measure, the Process Unit of "Measure", the process "Material" measured and the "Action" performed on the process material measured. A set of default descriptors for each of these parameters are available for users to select. In addition, users may add more appropriate descriptors for these parameters when no default descriptor is available. In addition, this version of the ERT corrects an issue for External Combustion where two descriptions are associated with the Level 1 SCC for these two descriptions.</li> </ul>

## Version 3.1 ERT Revisions History

February 2008 to August 2010

ERT Version	Date	Revisions
3	2/12/2008	Added a Printable Test Report.
3	7/22/2008	Fixed it to trap for invalid drives when looking for existing project data sets on startup.
3-1	6/4/09	Getting it ready for the Boiler MACT 114 letters: - added Methods: 0011, 26, 8 - added compounds: Total TEQ Dioxins, Total Furans, Total PCBs - added mouse overs for labels - added ShowTips for larger help text (uses Tags .. Just add text to tag and it will create popup help).
	8/19/09	Fixed Import to delete temp tables before a new import (in case the previous import was stopped)
	8/24/09	Added Hydrogen Fluoride and Hydrogen Bromide to Method 26A.
	9/1/09	Revised upscale calibration gas to allow low, med or high (as opposed to med or high)
	9/14/09	Reduced white space in between detail data run report for test report
	9/16/09	Improved Printed Test Report... it was duplicating runs and it was not showing all compounds ... also fixed the Emissions summary... that was only showing emissions if they were in a table... now it shows all Emissions.
	9/17/09	Fixed BuildMassByLocation to include the method in the select... now it is Location, Method, Compound... Had situation where the location and compound was the same for 2 diff. methods... this caused an extra record in the emission summary section of the test report
	9/17/09	Corrected ISO run data tabs so they recalculate without having to close Run data menu... fixed onchange event of the tab control
	9/22/09	Fixed test plan report to show the correct SCC description ... also added UOM, Target, and Comment fields to the testplan screen for APCD's.

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3-1	9/30/09	Took formatnumber() off of Mass_mg calc for qrymasscales ... this was causing incorrect emission cales for lower numbers and units.
	10/5/09	Added combo methods for OTM 27/28; Method 5/OTM28; Method 17/OTM28; added congeners for Method 23.
	10/7/09	Set the ISO flag for the new combo methods 5/28 and 17/28
	10/14/09	Fixed the Test Report to show the correct SCC description
	10/15/09	Took out the formatnumber() for the CalcCGas calculation... before if the Cgas number was below .09, it would give 0 for the answers
	10/22/09	Fixed the Test Report to handle odd number of ITM runs (transposerMass, transposerCalcs)
	11/9/09	Fixed Method 26 to be an ISO method... it is actually a manual method, but it needs the ISO tabs
	11/30/09	Fixed so you can add more than 10 process runs... also can now edit the comments in the process run data
	12/2/09	Changed the format of the emissions to scientific notation ... in apptblEmisConcsFull ... also can add a target pollutant after the run data has been entered.
	12/9/09	Fixed the delete target pollutant and the run data calcs when using target polls with a single quote in the name
	12/21/09	Fixed compile error in Cgas formula
	12/23/09	Shows 12/23/09 in date; added two PCB congeners; fixed the problems in selecting and deselecting targets with "" in the name.
	1/22/2010	This version has the following fixes: For Method 23 and changed Total TEQ Dioxans to Total TEQ. These chemical were added: Total Dioxins, Total Mono-CBs, Total Di-CBs, Total Tri-CBs, Total Tetra-CBs, Total Penta-CBs, Total Hexa-CBs, Total Hepta-CBs, Total Octa-CBs, Total Nona-CBs, and 2,3,3',4,4',5/2,3,3',4,4',5' - HxCB. Two test MS Access databases were provided.
	2/9/2010	<ul style="list-style-type: none"> <li>- Method 23 update - grouped the compounds and set display order.</li> <li>- The target parameters are ordered on the Run Data Lab screen to allow easier data entry from the Lab Reports.</li> <li>- Target parameters cannot be added if they already exist</li> <li>- Added ability to add notes to the individual runs for process, process lab, and APCD's</li> </ul>

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3-1	3/12/2010	Statement for the certifications of both the Permitted Facility Representative and the Testing Company Representative on the Signature page of the ERT was added.
	8/3/2010	<ul style="list-style-type: none"> <li>- Fixed import pick list to only show ISO methods...</li> <li>- Run number pick list now limits for location (was showing runs at other locations with same method name for ITM data)</li> <li>- Process/lab/APCD parameters added at the test plan. Parameters add to all runs.</li> <li>- Added Methods 5B,F; 12; 13A ,B</li> <li>- Added columns for Method 1A</li> <li>- Test Report shows the Moisture % and Moisture % Saturated in the Summary portion</li> <li>- Delete Process/Lab/APCD runs (cannot delete run 1)</li> <li>- Change the name of the location</li> </ul>
	8/31/2010	<ul style="list-style-type: none"> <li>- Users can change run dates</li> <li>- Users can now enter Fc when selecting "override" fuel type</li> <li>- Added next/previous buttons to run data screen</li> <li>- Users do not have to enter a UOM if the lab value is 0 (conv2mg)</li> <li>- The Test Report will now print Method 26 without ISO data entered (put 'resume next' in transposerCalcs)</li> <li>- Fixed to handle the first location entry (check if save location is null)</li> <li>- Took out formatnumber in qrybuildcalcs for detlaPavg</li> <li>- Created getAve function .. Used in reports... gets rid of #error or #num</li> <li>- Help popups are shown only when the mouse pointer is above the added icon for popup help</li> </ul>