ERT	Version	Description of updates	2/12/25
Version	Date		

ERT Version History

ERT Version	Version Date	Description of updates	
3	2/12/2008	This version has a Printable Test Report	
	7/22/2008	fixed it to trap for invalid drives when looking for existing project data sets on startup	
3-1	9/22/2009	 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 Show Tips 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 Flouride and Hydrogen Bromide to Method 26A 9/1/09 - upscale calibration gas can now be 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 - fixed 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 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 were the same for 2 diff. methods; this caused an extra record in the emission summary section of the test report. 9/17/09 - fixed ISO run data tabs so they recalculate without having to close it down fixed on change event of the tab control	
		9/22/09 - fixed test plan report to show the correct SCC description	
3-1	10/5/2009	 also added UOM, Target, and Comment fields to the testplan screen for APCD's 9/30/09 - took formatnumber() off of Mass_mg calc for qrymasscales - this was causing incorrect emission calcs for lower numbers and units 10/5/09 - Added combo methods for: Method OTM 27/28; Method 5/OTM28; Method 17/OTM28; added congeners for Method 23 	
3-1	12/9/2009	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	
3-1	12/23/09	12/21/09 - fixed compile error on Cgas calc 12/23/09 - fixed problem with selecting and deselecting PCB's w/ Prime's; added 2,3',4,4',5,5'-HxCB and 2,3,3',4,4',5,5'-HpCB	

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	1 (2 0) ; ;	
3-1	1/20/10	For Method 23:
		- Changed Total TEQ Dioxins to Total TEQ
		- 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
		2,3,3',4,4',5/2,3,3',4,4',5'-HxCB
3-1	2/5/10	For Method 23, grouped the compounds and set display order.
5 1	2/3/10	- Fixed so you cannot add target parameters that already exist
		- Added ability to add notes to the individual runs for process, process lab, and APCD's; ERT
		will automatically update the
		table structure of older project data sets so there is no data loss.
3-1	2/8/10	Fixed the RunDataLab Screen to show the sorted Method 23 targets to allow easier entry
3-1	2/8/10	from Lab Reports.
3-1	3/11/10	
3-1	3/11/10	2/9/10 - fixed order for Method 23 in Printed Test Plan and Test Report
		3/5/10 - fixed the single quote problem in the Test Report Printout for Method 23 congeners;
		(buildmassbylocation)
2.1	0/2/10	3/11/10 - added signature statements to the Printed Test Report and the Signature page.
3-1	8/2/10	7/17/10 - fixed import pick list to only show ISO methods; Also run number pick list now
		limits for location (was showing runs at
		other locations with same method name for ITM data)
		-8/2/10 - Process/lab/apcd parameters added at the test plan now add the params to all runs.
		• Added Methods 5B, 5F; 12; 13A,13B; also added columns for Method 1A
		 Test Report shows the Moisture % and Moisture % Saturated in the Summary
		portion
		• Can delete Process/Lab/APCD runs (cannot delete run 1)
		• can now change the name of the location
3-1	8/5/10	fixes error when adding the first process lab and/or APCD parameter
		 shows the process run data comment in the printed test report.
3-1	8/31/10	8/12/2010 - can change run date
		8/13/10 - can now enter Fc when selecting "override" fuel type
		- added next/previous buttons to run data screen
		8/20/10 - do not have to enter a UOM if the lab value is 0 (conv2mg)
		• will now print Method 26 without ISO data entered (put resume next in
		transposerCalcs)
		8/23/10 - Fixed to handle the first location entry (check if savelocation is null)
		8/30/10 - took out formatnumber in qrybuildcales for detlaPavg
		• - created getAve function. Used in reports; gets rid of #error or #num
		8/31/10 - added icon for popup help
4	4/18/11	10/5/10 - took out "me." reference in location combobox / frmrundatadetailsmaster; Keeps it
•	1/10/11	from crashing with Access 2010
		10/7/10 - add 19 for Fwt for Total Floride
		• took 0's out of apptblCOMPNDS for Molwt; this will keep it from getting a div 0 error on printing test reports; just shows blank
-		11/23/10 - neg. Cgas now has popup asking to keep negative or make it a 0

Version	Version Date	Description of updates	
Version	Date	opening problem 2. changed the getopenfiledialog Now u application.filedialog(msoFileDialogFileF 3. deleted master/child links in frmRunDatfrmRunDataDetailsMaster.cboLocation ev 4. now using the .accdb format 5. added EF calc for "tons/hr" 3/20/11 - changed to .accdb format 4/5/11 - fixed to import new and old spread	and Function for declare statements; Gets past the sing Picker) taISO and frm RunDataITM; set them in code in went disheet andb and .accdb; changed subfrmattachments to be
		 4/13/11 - fixed EFCalc to work; now corresided added popup button in header data 4/15/11 - Test Report button now lets you 4/18/11 - Date/Version on the Main Access. Main Menu now in Main Access. Fixed the Attach buttons for .mdb. can now size popup report screens. took out DQQ screens. works with 2007 or 2010 runtime. took out OTM27 and 28; can now. added QAQ tables, screens and questions. 	ectly works with all poll units in the SCC table a to show impingers info for Vlc view/export full report or data summary tables as Title Window; all others are popups and accdbs
4	6/16/11	or auto checking 1. added QA button to frmTestPlanSA; the (from NJ's spreadsheet) 2. added apptblDQQ back so the WebFIR	is brings up the protocol eval calculations screen E export will work.
4	6/23/11	1. for the EF export; Fixed: • now averaging the process values • added lb/mmBtuO2 column • changed formats to scientific nota • now works with PCB's 2. changed emission averages in test report 3. fixed getprocessvalue() to return a 0 inseqryEFwebfireexport would work	tion; now shows small numbers
4	6/30/11	fixed issue not being able to create empty also added Beta to version	data set; ethodParams.lblimits field to be a double
4	7/29/11 8/25/11		name for custom target parameter. at were created in a different ERT app. It also from the tblMethodParams but still has run data.
4	10/11/11	8/26/11 - added link to CAS number searce 8/29/11 - lat/long fields must now have at • NAICS field must now be 6 digits 8/31/11 - fixed issue with emission summ isISO to pull from getMethType(); Fixed all isISO cases 9/1/11 - fixed deleting last emission unit is	least 5 digits after the decimal sary not showing correct locations; Had to change

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Version Date - Can't edit Q7a; Fixed; had to give apptblcompnd a unique key (CAS,Name) 9/7/11 - View All Runs button now to rebuilds trnsBuildCalcs before showing report 9/17/11 - added "Press Ctrl+P to Print" for all reports 9/18/11 - added PSTs screens, reports added button on ITM to add new run; this carries over all data from the record you are on to the new record and adds 1 to the run number for PST's, enter the Method 3O2, CO2 for the runs, then enter ref methods for 10-CO, 6c-SO2, 7E-Nox; then go to the PST method and enter the cems for the O2 and CO2; then go to the PST method and enter the CEMS data 9/22/11 - took layouts out of PST reports so it will work in 2007 Runtime incorporated comments into Testplan QA screen added CDX Submission button (creates .zip with: 1) XML export file, 2) renamed zipped PDS) 9/27/11 - Add Run button for ITM run data only shows on the last record; also updates the cbomethod fixed ppm calculations (had to change case statement from "to" to "," 9/29/11 - CDX submission button now calls form to 1)review/set associations; 2)enter submit info; 3)create pkg file; 4)go to website submission file updates the submittal history.. This will be used for all submissions to all parties; (states, sources, error reports, etc.) 10/5/11 - added Email button to CDX submission for; (still have to manually select attachment-email body has file name) updated formats for frmQAScreen(and subforms) updated ERT Version History Report Select PDS now updates changes to field types and will unzip, save, and open the PDS from a pkg.zip file Changes screen colors added Help/Sys. Admin button; can view manual, version info, version history, calculations 10/6/11 - fixed is ISO problem with Test Review form; Test was failing when selecting run data added Reports to show the formula's for Fields and Emission/Concentrations Calculations • updated the wording in Question 12 to reflect new policy 10/7/11 - for ITM's pick flow, moisture, CO2, O2 from earlier runs; what is picked for flow defaults to others; can override select data set now lets you select from a ...pkg.zip and .zip file; it pulls out the PDS, saves it locally under ProjectDate (creates projectdate if not there), and opens it 10/10/11 - ISO/Manual methods can pick CO2, O2 from Methods 3A CO2, 3A O2 Now you give a Mol. Wt. for custom target params that are not in ERT; this lets the ITM emissions be calculated; (note, ISO emissions don't need this); Molwt for custom params is stored in tblmethodparams. Getfwt() checks apptblCOMPNDS and tblMethodParams for weight. updated the apptblCOMPNDS; added Methane, Ethane, Carbon, Propane; added

CAS numbers and weights to others

10/24/2011

10/11/11 - New methods: 102, 103, 104, 108, 0061, 215, 316, 0011 (was here, added targets)

• add web links, methods with targets report to admin screen

10/12/11 - q7a (tblparams) was locking after a sort; took out old sort order (because it was a

join and that was causing problems)

10/19/11 - Revise FRT main menu to show that there are several tabs where one can enter

10/19/11 - Revise ERT main menu to show that there are several tabs where one can enter the test plan. (Some users are confused

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		and assume that each menu item is a different part of the test plan rather that goes into the test plan at a different place.)	n each menu item
		 Make Test Plan Title & Date, Facility Name, Address, Contact, Photesting company, Test Company Address, Contact, Phone, email re (NOTE: DON"T WANT TO MAKE THIS TOO RESTRICTIVE BOPENING OLD PDS's W/OUT DATA; WOULD FORCE ENTRY THAT'S NOT THERE!) 	equired fields. ECAUSE OF
		• Change the Help popups near the "Facility Name"	
		 Change the Help popup for the Testing Company to provide more of 	letail.
		 Make Select SCC from list a required field. 	
		• For Item 7a & 7b, in the ? "Help Tip" screen. Delete the text about request.	the Section 114
		 The main screen is deceiving. No matter which button under "setup click on it takes you to the same thing. This makes the ERT seem li fill out than there really is. There is no reason to have 5 button option have just one and people can click the tabs. 	ke there's more to
		 The intro screen has two errors. It should be sector policies (not pol measurement (not monitoring) 	icy), and
		 Fix select zip if projectdata folder not there; NOW unzip and packa folder where PDS was 	ge puts file in
		 fixed index error on selecting PDS when a field had changed 	
		• Q5b. Changed "UOM" to Units	
		Add Facility State ID on Facility screen	
		Add Testing Co. project number	
		 Set default operational hours to 8760 10/20/11 - Fix "Attach File" buttonstook off "locked" in query 	
		Fix lat/long format field to be at least 5 places after the decimal	
		 reworded the "how to attach file text"; added how to add new attach tips on making smaller PDF files 	nment record and
		 removed CTM 40, updated wording and descriptions for PST method "Custom" is first for the Methods list 	ods
		• changed "reject" to "notice of deficiency" in action type 10/24/11 - added form for Q6 location	
		fixed error when selecting "select" from ISO and ITM run data scre associating runid's in dropdown list	ens for
4	12/8/11	 added form for Q4 Process; added target low, target high for proces 10/25/11 - fixed error on frmTestPlanSA load Was looking for frmtestpl 	
		• changed QAQ screen choices to "Completeness/Regulatory" 10/26/11 - added "Included Attachments" to the printed test plan and test re 10/27/11 - added the ability to create submission file with incomplete or bac (sendanyway = yes)	•
		 added detail form for Process lab and APCD's add detail form for Regulations; Added process param and unit to the ProcessParam picklist notinlist pops up subfrmProcess1 to add ProcessParam picklist notinlist pops up subfrm	cessParam
		 12/8/11 - added previous page to the TestPlan and TestPlanSA pages ISO Screen; CO2/O2 dropdowns; Show date in column; don't keep 	in field
4	1/30/12	1/30/12- 1. Add county in testplan	III Heid
•	1/30/12	2. Aded the following fields to XML file:	

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		 a. 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 3. Fixed XML Export; 2010 doesn't allow functions in queries with ExportXML; so made qryEFWebFireExport into a make table, then used table with export xml 4.FacilityTester Page: Made the FRS a required field Provide a Pop-Up help button (Blue question mark bullet) for Latitude/Longitude
4	2/14/12	 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) Q5a help text = 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. "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 updated "tips" for smaller PDF's on attachments page added to and from email addresses for all POC's, reviewers, signers, and submitters for submitters can pull from picklist of previously entered values changed the "Instrument Response" on the ITM Run Data page should be changed to "System Response" fixed Testplan and Test Report to show attachment list from old .mdb files 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.
4	2/14/12	 2/3/12 - turned off "Compact on Close" so will not get message when closing from Runtime version added "refence field" back to XML export; also updated the "view" export screen to show the new fields 2/14/12 - added "zip" to XML export; also made it so it will export County, even if county is null
4	3/2/12	3/2/12 - Fixed Testplan and Test Report attachments list printouts to work with .mdb and .accdb PDS's.
4	3/30/12	3/15/12 - added fields to emptytblPSTHeader and emptytblRunDataITM to handle the PST methods • took out extra space in the method "Nox to" • can now import 9 runs from spreadsheet template • fixed import of probe; Comes in a "Pitot" from spreadsheet header data 3/20/12 - made spreadsheet import routine loop based on imported header runs; so it will loop and import point data for however many header rows they have in their spreadsheet (they could add more or less if they wanted) • locked location name on location screen when started from Run data details master; also changed it so ERT checks the • location.oldvalue against the location.value to see if it has changed and to see how to change the other tables; took out • need for save location in on current 3/22/12 - Save As will now not let you save as the same name as the current PDS • Save As will now create .accdb instead of .mdb files

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V 615101		
		 submittal history getting in zipped PDS now fixed relative accuracy report; in GetCEMSO2(), now returns 0 instead of "" if isnull added Relative Accuracy Results to the reports pulldown; grouped report by location&method new page each group 3/23/12 - made "lb/mmbtus" on PST report be 4 significant digits 3/26/12 - XML WebFIRE export file now has ERT version, puts "000", "Uncontrolled" if "Controlled" is not checked (location screen), and the runs are grouped by location, method, pollutant now will not create submission package file if they have process data (>0) and they have not associated ALL data runs with process runs For PST's you do not have to have PPM, Lb/Hr, and Lb/MMBTUO2 selected for the method. The report will work with no matter what has been selected. 3/28/12 - can now enter 20.9 for O2% header and 0 for CO2% header; checks for this in qryMassCalcsISO, qryMassCalcsITM now stays on correct tabs (ISO or ITM) after deleting emission in methods tab now creates XML file; made left join to qryEFU (not used now) in qryEF now filters on location, method, compound on test review page 3/20/12 - fixed folder select button in save as screen will now always create XML file, when they create the submittal package; will have 0 for
4	4/26/12	EF 4/2/12 - fixed extra space in tblMethodsLink in "Nox to" for PST method 4/3/12 - fixed "calc points" in frmlocation; Now handles duct sizes and non-particulate traverse 4/16/12 - for SCC's with no Poll_Unit, etc.; Changed convFromLB just keep the lbvalue • had SCC form preload pick lists with what was there 4/20/12 - you now enter Unit_Poll, Measure, Material, and Action for SCC's without default data • has new SCC table 4/24/12 - SCC table now only has Point Sources + Wood Stove SCC's • updated SCC pick list to work with the 10 digit Wood Stove SCC's • took out uncertified Wood Stove SCC's 4/26/12 - SCC picker, now will keep the description at level one
4	7/10/12	 5/8/12 - took out Cal drift correction for Cgas for Method 25A Method 3a O2 - make Cgas populate O2%, hide CO2, Moisture, Flowrate, runids Method 3a CO2 - make Cgas populate CO2 %, hide O2%, runids 5/9/12 - added check for latest version on "continue" of splash screen and button on admin form 5/18/12 - locked Corr Analyte and % on Q7b. 5/21/12 - created form for Corr. Analyte and % has limits of O2, CO2 and 0-12 5/30/12 - took out sort(all quick menus) from lab form screen for 2010, it would lock the fields if you did a sort (sorting 2007 did not lock fields) took away default emiss/conc on pick emiss/conc screen 6/1/12 - fixed the test report review q16 and q19; they were the same, now fixed and shows up on the report. 6/15/12 - when adding a process parameter, you now enter the Poll_unit, Material, Measure, and Action; have new process screen, prevents tabbing through to new record 6/20/12 - prevent tabbing to new record on location, process lab and parameter, apcd screens 6/22/12 - Will now handle process based emissions; Updated qryBuildMass to create process based emissions; the header will show the compound / process updated the Emissions report to show process based emissions 6/25/12 - changed

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4	9/6/12	PstdHDR])*(459.67+[tm])),2)),"#.0 Vwstd: Format([Vlc]*ROUND(((459.67+M 2),5),"#.00") • Test Plan Report - changed 7/10/12 - changed PPM to Percent in 7/12/12 - fixed Add New Button on	in(tstdHDR))*21.849*0.0022006)/(Min(PstdHDR)*18.0 7. to 7a.; took out Points column from 7b 1 the PS3 Rata screens and reports ITM Data screen; now updates the location and method
		Vwstd:	
		/([tm]+459.67)),2) 8/16/12 - changed Pi to 5 decimal pl formatted DeltaP to show 5 number is used. 8/21/12 - updated RATA reports for	dec. places on screen. Formula has no format so full latest calculations from Ron
		• causing rounding errors on PST repo • can now exclude runs in PS' 8/24/12 - only lets you exclude up to 8/27/12 - updated O2/CO2 1.05 according	reports 3 runs eptance criteria to include the confidence coefficient ary key for tblREGS on updatetables(); This was causing
		 change run to type number is more than 9 runs must have 9 runs to run RA fixed process screen saving stop tab throughs 	report data on exit; and changed form.cycle to current record to d location to qratblrunlabaddrun; fixed that it would

same but the locations were different in Lab screen

- took out time unit (/hr, /minute) in Emissions header for process based emissions
- added target parameters for Method 201A and Method 201A/202

9/4/12 - updated cosmetic and help items from User Manual Comments

- Comment field in Test Report Review Report now grows
- 9/5/12 added Flag and Flag_Detail to XML Export to show lab BDL, DLL, Non BDL comments
 - added footnote to PST reports (rounding)

9/6/12 - changed CDX link to the CDX home page

of getting error and stopping

9/7/12
 9/7/12 - RATA Reports show in print preview mode
 3/18/13
 9/27/12 - has new QAQ questions; need to update how historical run adds are done

 fixed Save As Template; now creates dbversion120 (access 2007) database.
 9/28/12 - ITM help button now shows and hides with add new button
 Will not import manual method data when there exists the same location, method, and Run number
 10/2/12 - ERT will now show message if it can't get the ERT version from the web, instead

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	4/11/13	PDS's up to date 10/29/12 - added Method 30B added FRS and AFS num particulate" to "Non-Isoki added checkboxes for Q1 changed limits (took out of 12/6/12 - locked location subform name. 2/18/13 - testplan, rundata, testplat open test plan maximized 2/27/13 - moved locations/method review, test plan report put reglimits back in regulated help screen mess email 3/6/13 - forced Fd, Fc, Fw on Run Header file(lbmmbtu) -3/7/13 - fixed issues on adding not not not help screen mess email 3/12/13 - imported new SCC's 3/18/13 - made field widths wider updated process based emissions material processed" replaced emission summary tabl 3/19/13 - added Method 306 Chromaterial processed" cannot change process patematerial p	(Part61, etc.) of q2, q4; put in q7b) on testplan screen to edit, double click on the location in review screens open expanded, fields grow; Option to ls/emiss page before regulations in testplan, testplan lation question ages, screen units, and screen edits based on Ron's 2/27/13 or page to not be blank. Caused error when creating Export ew runs, updated help bubbles and screens based on on Q4 and 7b or now correctly show in reg limits drop down "lb/tons of e with limits table in full test report mium, Hexavalent Chromium rameters from selected SCC process eversion of manual test DE spreadsheet k temp, and velocity before deleting empty records in location with same name (location screen would not close) ata buttons click for popup screens (double click put window in back in to match question numbers art record; fix for "enter parameter" msg. lissions tab for Method 1-4 (flowrate, moisture calculated tts) tts to shwo Q2b; had to check old PDS and add record for traverse points Now sums based on if deltap is empty or forces recales; Also one change forces cascading recales show all methods e active unless opened from state review; Location is undata screen. ss QAQs and gives completeness scores start at ID 40 this is for old PDS's that added

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4.1	4/24/13	4/13/13 - New tabbed QAQ screen	
		 Attachment tables to print 4/17/13 - Save AS now converts tblattac Selecting a .mdb now warns the Create submission file stops if 	at It can not be sent to EPA
		 Regulatory review questions hat added help screens and formats fixed emissions summary screen 	
		testplan attachment buttons turn	a blue text when they have attachments ttachment buttons (blue if attach. Exists); cannot
		Regulatory review cannot add/rupdated main menu	
		 completeness button hides regular print buttons for questions 4/22/13 - fixed frmlocation (was not enable) 	
		updated link texts in QAQ baseadded attachments based on the	d on ron's spreadsheet 4/22 spreadsheet above
		 4/23/13 - added CARB Methods 428, 42 now cannot add a new location changed XML export to now al 	with the same name as an old location
		 added Test_Report_Rating to X fixed process description and te qraEFExport forces " " if null so 	st notes from truncating at 255; now memo fields
			to match the new question numbers s, No, N/A pulldown; defaults to " " nents" buttons now turn blue if they have a comment;
		black if empty	
4.1	4/29/13	list of missing fields with links	lRequired) before creating submission file. Shows
4.1	3/18/14	7/31/2013 - added pick lists for state, co	unty in testplan
		8/15/13 - added in new QAQ questions	and scoring ts for team leader and non reg reviewer) combined
		41 with 40 by changing description	to for team reader and non-reg reviewer) comomed
		9/16/13 - added 30b screens 9/24/13 - fixed pick emissions and add i	un careans to show an main manitar
		_	t Yes/No questions when determining the answer
		2/4/14 - updated 30B based on Ron's em	
		2/17/14 - now excludes runs for o2/co2 3/12/14 - updated text in Reg Review so	
			PDS. Older PDS's had this index which prevented
		despite it being from a different method • added Method 108	
		3/17/14 - ITM calibration page now refr	· · · · · · · · · · · · · · · · · · ·
		3/18/14 - imported new 30B tables, screpoint data sample rate field is no	-
		 excludes Method 1-4 in export 1 	

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		hides lab data tab for Method 1-4
4.1	4/7/14	 3/21/14 - fixed 30b emissions calculation 30b now included in XML export file F numbers now go to zero (never null) if fuel type is deleted from dropdown lists on header pages. This was causing the xml export not to work because it was trying to average a null value. 3/24/14 - new Sorbent trap section 2 breakthrough ITM header screen now locks values if picked from other runs 3/25/14 - ITM tabs now recalculate when opened and on current for Method 3A CO2 and O2, the CO2% and O2% are yellow to indicate a calculated field; also the flowrate drop down does not update the CO2 or O2 fields if method 3A CO2 3/26/14 - Facility name will now not accept special characters; special characters would cause a problem when creating the package file name. 3/27/14 - Changed the way the export works. Now exporting three tables, EFExport(table), qryEFExportFac, and qryEFtblRegs; graEFExport puts qryEF into the EFExport (table) because the grouped query would not export to XML, so had to go to a table first added regulation limit fields, and test purposes to XML export 3/28/14 - 30b reports now show sample a and sample b where applicable 3/31/14 - QAQ for calibration, drift, and system bias test now checks if any records in tblCals 4/1/14 - updated QAQ questions per ron's 3/13/14 email (changed some text and made some multfrm pop ups 4/2/14 - added PDSid and PDSidDate; these are unique PDS identifiers that are created when a PDS is created, saved as, or when selected if they are empty (meaning the PDS was from an earlier version) 4/7/14 - ERT now automatically includes the uncorrected analyte when a corrected one is selected in the emissions/concentrations pick list.
5	5/7/14	 4/8/14 - changes calsets now recalculates everything on itm run data screen 4/10/14 - added all emissions to the XML export xml export for webfire now by runs instead of average runs 4/15/14 - fixed Rata's so calibration data is correct (subfrmPSTHeaderCal changed to lnkLocation, lnkMethod) 4/17/14 - link location pull downs wider to handle location to 50 Characters added Part-SubPart combo for tblRegs; Took out Compliance on qryEFtblRegs (export file) 4/18/14 - now prints PST reports from reports menu PST reports are NOT included in the Full Test Report linked fields (ISO, ITM, 30B) are now updated when the forms are closed so changes are pushed to the linked fields linkedID fields are now 75 characters 4/29/14 - changed. updates to SQL in transbuildcalcs, transbuildmass; the old way would

4/29/14 - changed. updates to SQL in transbuildcales, transbuildmass; the old way would cause ERT to bloat unless the row level

locking was unchecked.

4/30/14 - check box to check version on startup

- checks row level locking on start up and turns it off; gives message to restart ERT
- EF XML export has list of locations and methods
- EF XML export has list of emissions
- EF XML export (and emissions results page) excludes Method 1-4 and Method 3A O2.

5/6/14 - incorporated 30B XLS and XML imports and exports

• shows message when you delete a emis/conc from rundata screen that it will be removed from the emissions tab next time method is selected

ERT Version	Version Date	Description of updates	2/12/25
		• cannot delete emis/con 5/7/14 - updated import routine	e with correction until the correction is deleted first
5	6/30/14	 5/13/14 - turned off switch to the added code to turn on a Pre 2010 versions can't 5/14/14 - put timer in copy table PDS changed on change to a 5/19/14 - added Method 30B Q updated version checked 5/29/14 - fixed transposerCalce 6/2/14 - 30b screens now only the regulation description on the regulations screen for the regulation of the regulations screen for the regulations screen for the regulations screen for the regulation screen for the regulation screen for the regulation screen for the regulation for	ompact on close if access 2010 or later, turns off otherwise; compact ERT and give error message on close e routine to slow it down fixed problem with creating new of the update in frmSCCpicker A/QC report report to look for "/ertv5/ERT5_"; and transposerMass to kick out on non multiples of 3 refresh current page on defaults to the description selected in the Part60 dropdown on the le with new items from Ron "Degrees Celsius", "Percent Opacity", "Pounds per Square is of Water", "Inches of Mercury", "Atmosphere" to the list of
5	9/10/14	 put timer in LinkDataS .mdb's 7/28/14 - added "RATA" check deleted emptytbl30B tbl30B is not used. updated XML Export Air Permit number, Qa pollname and emission 8/14/14 - completely changed ts/19/14 - deleting method paradelete run data if it is the last pass/20/14 - deleting location now run data will be deleted, if no, as/25/14 - fixed XML import application.xmlimport forcing "- user entered 8/26/14 - XLM, XLS imports fs/9/5/14 - when submitting or rescompleteness check during the 	S, phone numbers, and zip codes et to slow it down was getting error when trying to link to box to Test plan review screen so it will not create the table when creating new PDS. The file to: get rid of qryEFMethodParams; add lat/long, NAICS, w, Stack Temp(ts) process parameter rate (all 5), made unit fields names match he XML export format; Tables, no nesting neters now deletes emission/concentrations and will ask to trameter for that method and if run data exists. prompts to delete associated run data if yes, location and nothing is deleted changed from docmd.savedxmlimport to "" on import for ids,xml and xls or 30B, ISO now work ubmitting a test report, you are now prompted to review the

• can edit the target High and Low for SCC process parameters

EK1 Version	v ersion Date	Description of updates 2/12/25
V CI SIUII	Date	
		9/9/14 - changed process, apcd, and process lab reports to include general comments and SCC for process 9/10/14 - added location to tblAPCDcontrols
	10/27/14	 9/11/14 - added Method 306A Chromium (Manual) added grams/sec; Format([Qsd]*[lb/dscf]*453.592/60,'Scientific') AS [g/sec] 9/12/14 - added Vlc and DeltaP to 30B import spreadsheet and ERT import routines 9/16/14 - took out "compound <> O2" in qrybuildcalcsITM 9/22/14 - updated popup text for Vm, Vmstd, and Vwstd in Method 30B 10/1/14 - fixed format for tester zip code 10/10/14 - debug for Release 10/15/14 10/20/14 - ERT5 error in 30b when selecting o2 id's; check field lengths for new PDS's 10/23/14 - completeness questions include manual questions for M30b 10/24/14 - fixed method, run number swap on qryEFMass 10/27/14 -M30B total sample volume now includes the correction (multiplying by Y) M30B corrected %H20sat calculation M30B Cw now uses the lower of %H20 and %H20sat Add Test Run Mercury Concentration (wet ug/scm) under the Test Run Mercury field; will be average of the Cw's updated version check message to explain corporate blocks to internet access and how disable auto version check. locked the location and method field in the upload data review grids so they cannot be changed.
5	11/19/14	11/3/14 - added "lb/trillion Btu using CO2 and O2" to emissions concentration list 11/5/14 - Method 30; Fixed Qsd picklist, added moisture pick list, grouped temp, moisture and CO2, O2 • color coded point data columns to show required fields 11/6/14 - Method 30B header leak checks can now be zero and will show zero % Updated QA comments to reflect valid 0% • fixed QA "Sample flow rate checks" now will show zero % or say insufficient data, check the point data if empty or incomplete data. Also fixed the refreshes for the tabs to incorporate recales of other pages if needed for the current page 11/13/14 - added popup formula's on data results pages • fixed M30 ts drop down to always have User entered (used tbltestplan) • ActualOrificePresure field defaults to zero so DeltaH shows corrected the calculation for DeltaH • using stacktempA instead of volume to count points for 30B; 30B doesn't require volume (deltaP) • Fixed (method 30b) QSD pull down made PercH2O default to 100; was causing error in QSDcacl • Method 30B Sample page - Vt now = Vmstd *35.315; this changes it to M3 • AVT and BVT now = vmstd/35.314666; This fixes the emissions calcs for 30b 11/15/14 - M30B Section 1 A and B Mass now has components 11/19/14 - DeltaH now uses number of traverse points instead of averagetook out round for VmA,VmB,VmstdA,VmstdB • fixed calculation for lowH2O • sent to Ron for Release
5	12/2/14	12/1/14 - RATA's now pick if they want to use CO2 or O2 for lb/MMBTU • Ms now uses lower of H20 and H20sat (iso and 30b methods) 12/2/14 - added number of sampling points (stratification attachment) Method 30B QA to page and report
		sent to ron for release

Version

ERT

ERT Version	Version Date	Description of updates	2/12/25	
5	12/19/14	changed DeltaH to be calculated by dividing dividing by zero on new runs with no points. b. For Qsd drop downs, have to not include r 12/5/14 - updated qrybuildcalcs (30b) to che of #error problems • updated apptblFieldDesc to have new • ITM screen calc fields will now show 12/9/14 - Fixed Method 30B import changed double instead of integer; was importing zero • Fixed qrySampleRateCalcs30B to use linking qryinitsamplerate30b in quere 30B screens • sent to Ron/Stef for review 12/12/14 - fixed qrymasscales so that the same multiple units of measure • fixed qrylimits to match million and match limits • updated calculations for lb/trillion B • added lb/Year; ng/joule using CO2 are fixed renaming run; conflict message sent to Ron and Stef for review	d apptblFieldDesc to have new formula's creen calc fields will now show formula on double click d Method 30B import changed apptblimportrundata fields F16 -F21 to of integer; was importing zeros for small numbers qrySampleRateCalcs30B to use function to pull InitRate(A and B) instead of gryinitsamplerate30b in query; this drastically reduced load time for Method creens Ron/Stef for review d qrymasscalcs so that the same process rate parameter can be associated with of measure grylimits to match million and trillion with mm and T (on emissions screen) to limits d calculations for lb/trillion BTU using CO2 and O2 lb/Year; ng/joule using CO2 and O2; kg/hr enaming run; conflict message; now closes run data form first. Ron and Stef for review	
5	1/28/15	12/19/14 - updated splash and admin screen with Stef's info 1/8/15 - fixed RATA report had problem if PercCO2 was null. Updated qrymasscalc to check first 1/16/15 - added sort order to qrymasscalc to fix order of emissions in test reports 1/22/15 - fixed HGConcetraion() fuction to trap nulls this would cause 30b to throw erro if the YhdrA value was null 1/28/15 - fixed post leak checks on 30B header to use Vta, Vtb instead of Avolume and Bvolume		
5	7/5/15		mptyDB to stop delete warnings in Access 2013	
5	10/9/15	imported emptytbls with descriptions for Dat 8/12/15 - added required fields and keys to describe to word; that keeps the lines and cold 8/13/15 - fixed issue where it would hang on when ERT was first opened. This was because currname 8/20/15 - checks to see if "eyeyey" exists before selecting PDS 9/3/15 - uncommented on error in frmEFLing package create • fixed ISO,30b run screens causing "for commented out UpdateCurrRun; not 9/8/15 - red '*' on fields required to calculate 9/14/15 - Fast ISO fix commented out ass for emissions subform) in cbolocation.afterurin 2010.	a Dictionary ata dictionary ata dictionary rd version, create PDF, then inside PDF, convert ors. Can access report through admin screen. step 3 if you went straight to create package file see the "Date Created" was not part of the fore trying to create it to uppack the zip package c.load to show incomplete data message on file in use" error on package create needed emissions/concentrations on ISO header page ignment of master and child form links (except odate. The lab and emissions were causing error the target high, target low and comments" can be selected SCC.	

ERT	Version	Description of updates	2/12/25
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		- 9/22/15 - custom methods no longer save to apptblMethodsFull. The method dropdown	
		now pulls custom methods from	
		tblMethodParams. This allows a user to delete custom method if they enter it wrong (ITM or	
		ISO).	
		• sent to EPA for review	
		10/7/15 - Method 30b now has DeltaHA and DeltaHB	
		10/9/15 - updated with new SCC's from Theresa Lowe updated splash and admin screen to	
		have Theresa's info	
		• sent to EPA for review	
5	10/29/15	10/29/15 - added Mod. Method 26A Sub. S and compounds	
		added Method 0010 and compounds	
		added Method 29 front and back half metals	
		• fixed FRS hyperlink on testplan and admin screen	
		updated admin screen email link to Theresa Lowe	
		• help button on admin screen will now prompt for ERT manual if it can't find what it	
		is looking for. So for a new manual,	
		• delete the old manual (in the same folder as ERT) and click the button. You will be	
		prompted to select the new manual.	
		created zipped .exe that has ERT and manual for release on EPA website	
5	11/13/15	11/13/15 - took out "nz" in tm calc; This was causing it to average an extra row.	
		• Changed 30B printed report to not include leak checks that = zero	
5	12/3/15	12/1/15 - RATA's; being done wrong; CEMS O2 was coming from Method 3A O2; this is	
		wrong, all CEMS data should come from plant - Add column for CEMS O2 Corr on Rata	
		page	
		 Change calc to CEMS O2 from new field instead of Method 3A 	
		12/2/15 - Fixed ITM data screen where it was zeroing out the emission for the first selected	
		run. Had to uncomment the subform assignment in the colocation after update on master run	
		data form	
		• sent .exe file for live version post to web	
		12/3/15 - Now when submission package file action is submit or resubmit test report, it	
		catches and prompt to enter when the SCC process values are null or zero	
		• created .exe for live release	
5	1/15/16	1/5/16 - added Method 30B calculations to the calculations report.	
		• added popup calculations for Method 30B Sample Data Screen.	
		• created .exe for live release	
		1/15/16 - added attachment records for M18 and M320 supporting data	
5	2/14/16	2/14/16 - fixed it so manual test methods without flow information will still create XML	
	2, 1 ., 10	files, however there will be no emission	
		factor.	
		PS3 RATA report now grouped by location.	
		RATA report now grouped by rocation. RATA reports and screen now sorted by val([run])	
		• created .exe for live release	
5	3/15/16	3/15/16 - updated the text for location explaining the upstream and downstream. Also fixed	
3	3/13/10		
		the upstream and downstream labels in the test plan review qa	
E	4/22/16	added updated users manual 3-11-16, created live zip exe A/8/16 Fined Technique CA form to allow the limits from the IR are	
5	4/22/16	4/8/16 - fixed Testplan review QA form to show the limits from tblRegs.	
		4/14/16 - expanded rounding from 5 to 10 for ExpectedMDL; 5 was causing it to round to	
		zero which would show zero on the 30B header form and cause the printed 30B report to	
		show a QA error	
-	5/0/16	4/22/16 - added "getfwt()" to buildmasscales for 30B this lets it calc ppm	
5	5/2/16	5/2/16 - Added CTM 027 and OTM 029	
		Added mg/hr, ug/hr, and ng/hr	

ERT Version		Description of updates	2/12/25
		valueUpdated conversion for wvalue	randard temperature from 459.67 to 460 to match CFR vater density from 0.0022005 to 0.002201 to match CFR deal gas constant from 21.8405 to 21.85 to match CFR elease
5	6/20/16	5/4/16 - added the function Export the raw data tables into an XML for 5/12/16 - created code to include commented out now; but works. 6/7/16 - qrybuildcalcs30B now us on the dropdown list in the header calculated from the stack temp pofo/16/16 - Method 0023A added; use the control of the c	tRawData() in the Tableinfo Module; this will export all of file. the raw and summary data in the XML file in the package; es the tsHDR for stack temp tsHDR is determined based screen. It can be user entered, pulled from another run, or
5	8/11/16	6/22/16 - added PS8 6/23/16 - updated PS8 report to sl upped the correction limit 6/28/16 - Excess Air on Sample ID 21%) or N2(79-80%) turned on Raw Data XMI file on package file creati 7/19/16 - will now show custom ID added Method 25B. created zipped .exe file for 8/9/16 - updated users guide to 6- Attachment now says "M Vmstd now to 3 decimal add lb/day, kg/day, kg/ye emissions/concentration the added Method 25B to PSE 8/10/16 - Fixed Test plan attachments other to include all the certification attachments 41,42 were combined 40 to be 15 instead of 5 For Method 26, This is the enter DeltaP or Stack Termody, Qaw, and MMBtu/Fixereated. Put test in qrybuil linked it to the 8/10/16 re added attachment record added attachment record acreated .exe for release 8/11/16 - add /day to process and The submission package acreated .exe	to 20%; frmCorrAnalye Detail printed report now shows Not Applicable if O2 (20- L; Now the summary and raw data are exported to the XML on. SO methods on import screen method dropdown list. or release, sent to Theresa 28-16 version ethod 320/321 " blaces ar, tons/hr, tons/day, tons/year to the able 3 ent button; Hide the "Test company", changed name of ns (except lab); this points to attachment 40. In 3/18/14, I into 40. Also fixed getscore for e only Manual (ISO type) method. Which means they don't np point data; this causes errors to %H20sat, Mfd, Ms, Vs, Ir in qrybuildcales; So this keeps the XML from being ldcales for Method 26 lease of the users guide for full test plan (did not update scoring)
5	10/6/16	8/12/16 - fixed labels on PS3 Cal 8/12/16 For Method 30, if they us entries in point data. DryGas read	

Version	Version Date	Description of updates	2/12/25
		in qryBuildPointsCalcs30B put test for	or tmA and tmB, if no drygas a or b in point data, then
		use 68 8/15/16 - if no test plan title, package	name will pull from facility name
	• created .exe package for release 8/16/16 - save as template now deletes cal set data (tblCals)		
		 Method 25A and 25B do not 	apply correction to Cave to get CgasCgas = Cave
		instead of Cgas = (Cavg - Co) * (Cma / (Cm -Co)) 9/19/16 - Took out Total Organic Compounds from Method 25a; they now must che as what basis	
		• created .exe package for releated 10/6/16 - qryBuildCales now checks show iso stuff if it was entered	se Method 26 and isnull(deltapavg); this let's method 26
		created .exe package for release.	
5	4/20/17	10/17/16 - updated Vmstd from 459.6 11/29/16 - Does not hide oxygen in N could have an oxygen correction 12/6/16 - added Method 5A, 308	7 to 460 (method 30B too) Iethod 3A CO2 screen CO2 is now a pollutant and
		12/13/16 - added frmWSApp; woods	h in PDS name on testplan screen ove application form with attachments - still hidden ttachments if they have attached the full test report
		 added unit labels to iso heade spell correction to seconday i 	r and point data; dscfm to flow on ITM run results; n SCC table; added citation and reporting requirements cachment tab; corrected rollover Pstatic label to in H2O
			location form verbage for distance and calculations new Manual from Theresa and sent to Theresa for
		1/12/17 - fixed Package Name on Tes	tPlan to only allow Letter, Numbers, Dashes, or Spaces new Manual from Theresa and sent to Theresa for
		release	
		1/27/17 - took out the attachments of 2/2/17 - fixed the Vmstd formula desowas always correct!	the XML export file cription to show "460" instead of "60" calc in query
		4/7/17 - created from my computer;	exe for release (testing mising .dll)
		, , , , , , , , , , , , , , , , , , , ,	RATAResultsO2CO2 formula from]>Abs([SumPPMDiff]),IIf(Round([rasPPMdif],0)<=20.
		5, "PASS",IIf(Abs([SumPPMDiff])<=1, PASS",	05,"PASS","FAIL")),IIf(Abs([SumPPMDiff])<=1.05,"
		"FAIL")); To =IIf(Round([rasPPMdif],0)<=20,"PA this uses the average not the sum for	SS",IIf(Abs([AvgPPMDiff])<1.05,"PASS","FAIL"));
		• created .exe from my comput	
5	8/1/17	6/8/17 - changed text in label 2 of PS	Γ O2 to PS3 RATA; also took out "some State Rules"
		from the label • deleted top label field in above	e RATA and changed " < or =" to be the actual number
		hooked to new User Manual	5 ·
			form to cycle through current record, not all prms; Created release package and sent to Theresa

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		6/19/17 - new website for version check https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert	
		8/2/17 - Microsoft Security updated made the getGUID() stop working, this caused the create new PDS to not work. Fixed this with new way to create guid	
		• created .exe package and sent to Theresa for testing and release	
5	1/25/18	1/4/18 - updated Wood Stove B415 queries to not use dlookup functions. Now create temp tables for apptblWSB415RunPointsNext and apptblWSB415DryWtNow which must be created each time before the qryWSB415BuildCalcs gets run. This much faster than having everything be queries. 1/23/18 - added screens for WS2515E-11 still need to add tabs for Ambient, Results, and	
		Efficiency	
_	2/=/10	1/25/18 - Finished WS2515 screens	
5	3/7/18	3/7/18- Theresa changed wording on WS Main menu buttons	
		she added new appstandard types	
		• I updated the appstandard field length to 50 in emptytblWSApp	
		• fixed the WS add new run; the drop down list had changed and had to update the	
_		case statement to match.	
5	3/19/18	3/19/18 - made the upstream and downstream report text match the form	
5	4/26/18	4/26/18 - attachments; changed AttachID from autonum to integer, updates tblattachment on select PDS, trap add attachment in frmtblAttachments, subMultiAttach (only places that allow adds to attachment) to get new number before insert.	
5	5/2/18	5/2/18 - CalPreZSysBias and CalZPreDrift have the fields reversed in the ITM screen. The	
		only place this showed up was on the printed reports. The Field Desc and sort order were swapped in the apptblFieldDesc table so the report will read correctly.	
5	5/10/18	5/10/18Million tons added to measure list; Total Dioxins and Furans, Semi-volatile metals (Pb, Cd, and Se), Semi-volatile metals (Pb and Cd), Low volatile metals (As, Be, and Cr), Low volatile metals (As, Be, Cr, Sn, Co, Mn, Ni), and Total Condensables (Organics + Inorganics) added to compound list	
5	6/26/18	6/26/18 - Added the tester's DQ comments to the full report printout.	
		 fixed to show all of the processes; Had to take out the TestplanID as the link. TestplanID is not used. 	
5	6/29/18	6/29/18 - SCCs list updated; compound threshold limits updated; edit on Stack and Sampling Data (%H2O from %H2O)	
5	7/27/18	7/27/18 - updated Methanol MW = 32.04	
5	8/15/2018	8/15/18 - took my email address out of splash screen	
5	10/29/18	10/29/18 - added first draft of WS Checklist • updated to include new SCC table	
5	11/29/18	11/29/18 - changed caption of wood summary form to Hydronic Heater will have to be updated to change for each type of heater picked	
5	12/20/18	12/20/18 - added onehour pm to tblWS2515Header and put it on the 2515 results page	
5	2/12/19	2/12/19 - added update table button on BoxA and BoxB that sets focus to the datasheet and does a save. This is to help with the pastenot saving issue.	
5	2/27/19	2/27/19 - Changed label of time interval of Avg. to Time Interval of Data Recording in ITM Run Results tab; copyright permission and citation for CSA 415.1-10 (R2015) added to Method 415.1-10 header; WS2515PBtunnel PT (point) changed from number to short text; On summary A test duration changed to hour from minute basis; Wfuel changed from kg to lb and Mcave changed from wet to reporting dry basis; added appropriate titles to columns of Summary tables; added query to create summary table for adjustable wood heaters -needs first hr PM (g/hr), weighted average in g/h; need to add different burn categories for FAF, pellet stoves, single and adjustable burn rates	

Version	Date		
5	3/28/19	changed label for Summary QryWSHHHangtag and changed the name of the tag to qryWSHHAdditional Information; qryWSHHAnnualwtg edited the column names; created qryAWBSsummary – this needs to be linked to methods 28R and ASTM E2780 from the applications for Wood Burning stoves – these methods will need another summary tab with Weighted Particulate emission average of the run, overall average efficiency from the runs and Total CO emissions.	
5	4/30/19	4/30/19 - this is now the master version; copied from Theresa's 3/28/19 version	
5	5/3/19	5/3/19 - has box C Efficiency and results are now popups for 2515	
5	5/6/19	broke out the results and efficiency screens from the 2515 form. The form was taking too long to load because of the complex queries. Now the complex query only runs when you select results or efficiency.	
5	5/7/19	5/7/19 - fixed box a, b, c update button to walk through datasheet to trigger cales	
5	5/17/19	5/17/19 - boxA calcBarmetricAVG would not calc unless BEG, MID, and END had values fixed this and average is based on how many are not empty. Also did this for the Stove T avg temperature.	
5	5/23/19	Added 13 wood species to fuel default list (apptblWSFuelDefault); corrected typo - position on lab and EPA third party reviewer tab; added mg to filter label; added Province to State/Province on application need to add ability to add what is not on the list; added country label; need to add country cell	
5	6/3/19	6/3/19 - This was from Theresa; now the new dev master	
5	6/9/19	 6/9/19 - added button for WS attachments, fixed HH summary tables fixed delete runs for WS 415B burn categories pick list changes based on heater type 	
5	6/10/19	6/10/19 - fixed issue with category list; had to take out comma's	
5	6/26/19	6/26/19 - updated WS Summary tables, has one hour pm, delete WS runs work	
5	6/27/19	6/27/19 - updated pellet stove summary results total to show the value of the overall for qryWSFAFSumTotals and qryWSFAFSum changed o qryWS2515Efficiency. [Emissions (lb/MMBtu Out)] AS [Total Emissions Rate (lbs/MMBTU)], § Changed to: Total Emissions Rate (lbs/MMBTU): [qryWSB415Results]![MMBtuOutput_Part]	
5	7/22/19	7/22/19 - FA Furnace summary changed total to average emission on page b	
5	7/24/19	7/24/19 - Adjustable Burn rate, Single Burn Rate, HH Part C summary tables added	
5	7/25/19	 7/25/19 - added Part C and Part D summary tables added Cpi and Cpcf On application main form, add "Manufacturer Instructions to Lab"; button for attachment 	
5	9/11/19	9/11/19 - changed Elapsed time to decimal in 415 and 2515 tables	
5	9/16/19	9/16/19 - added runrownum to the temp table so we could find the #2 row for each run. This fixed the errors in qryWSB415BuildCalcs GP_CO and GP_HC • sent version to Theresa	
5	9/17/19	9/17/19 – tl - In qryWSB415Results changed Avg(qryWSB415BuildCalcs.FGpercO2) AS O2Avg to Avg(qryWSB415BuildCalcs.CalcPercO2) AS O2Avg. This fixes the Air/Fuel Ratio.	
5	9/18/19	9/18/19 – tl - In qryWSB415BuildCalcs, fixed equation for energy loss CO EL_CO from: 0.001*[DW_CO]*([HCC_N2]+282993) AS EL_CO to 0.001*[DW_CO]*([HCC_CO]+282993) AS EL_CO. This fixes the HHV output calculation.	
5	9/30/19	9/30/19 – tl - used run row number to fix errors in row 2 of qryWS415BuildCalcs SL Loss, Total loss and Chem Loss 2; fixed typos in CSA 415 Copyright notice on frmWS415; this came from TL 10-2-19	
5	10/14/19	10/14/19 - created qryWSBurnRatePi and qryWSKi to be used with qryWSAdjRateSumWtg to calculated based on the burnrate lookup table apptblWSBurnRatewgtedProb.	
5	10/21/19	10/21/19 - added the "Weighted particulate emission average" on the summary page for Adjustable Rate WS	

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5	10/21/19	emissions lb/MMBTU output and qryWS2515EfficiencyG415MMTI heater type. Below is the code that Heater uses qryWS2515Efficiency	efficiency calcs (Heat output rate btu/hr and MJ/hr, g/MJ) from either qryWS2515Efficiency or from auOutput (which pulls from B415) depending on the determines which is used (basically, only the Hydronic all the others use the other one with the B415 data).	
5	10/31/19	10/31/19 - Includes ITM spreadshoplan); sent to TL	et import (remember to setup the parameters in the test	
5	11/1/19		ild, and bit info to the frmAdmin screen	
5	11/5/19	11/5/19 - corrected tunnel velocity MW dry) not wet (calcDilution Tu	(vs) equation to use dry molecular wt (Dilution Tunnel mel MW wet) in the following queries: 215BoxBPointscalc, qryWS215BoxCPointscalc, yWS215BoxBPointscalc_1hr,	
5	11/7/19		VSB415Results Qin Initdrylb*8600 to Qin = Initdrylb *	
5	11/27/19		ces to apptblStateCounty table and added regs to	
5	12/2/19	12/2/19 - TL - Added missing fed 12/2/19	rules to apptblFedRules table; new master dev as of	
6	12/6/19	Has Import spreadsheet for 2515 ta efficiency calc button was deleting added country field in application import template spreadsheet)	(a.) Fix: make the one hour gram = the field above it. bles; one run per spreadsheet. Fix for non-working the orphan record in the tblWS2515HHPoints table for all contacts; sent to TL for review (along with 2515	
6	12/12/19		ves WS application, attachments and deletes all other WS are correct burn categories Proportional RateA and B now	
6	12/13/19	12/13/19 - qryWSPelletSumTotals	12/13/19 - qryWSPelletSumTotals; Changed OverAll CO Emissions from g/hr to g/min	
6	12/16/19	* 100 because don't need it when y Added % format, changed to Qout Pellet summary - removed "Overal lb/lb-mole text; HH summary - No	12/16/19 - qryWSFAFSum.Delivered Efficiency is now: HHVOutputBtu/Qin (didn't add the * 100 because don't need it when you make the column a Percent Format); HH summary - Added % format, changed to Qout/Qin; AdjRatesummary - changed Ndel to % format; Pellet summary - removed "Overall" from CO emissions header; Preburn form - corrected lb/lb-mole text; HH summary - Ndelfi now % format; Singleburn - fixed qrySWSingleRateSumTotals to use the qryWSSingleRateSum query	
6	12/30/19	12/30/19 - summary tables will sho	w red cells when PM is over the limits	
6	1/22/20	1/22/20 - took out "Hangtag" in the	summary table headers	
6	2/9/20	c. Look at adding new attachments d. #3 dropdown box is too small for e. The stove has to be conditioned 2515; Conditioning hour g. 60 day requirement; Must be sufficient to the sufficient of	are missing the word "to" titles ment names add "required" when required ; Getting errors! r text for at least 50 hours before the test; add box on preburn omitted within 60 days of test; Add Submittal date to ays; Add on application, if yes for postponed; add box	
6	2/10/20	2/10/20 - added print button for W	S attachments and WS Summaries	
6	2/11/20	2/11/20 - formatted summary value		
6	2/12/20	2/12/20 - fixed Fuel screen calcs a Efficiency to Run screen	nd formatting; added printed forms for B415, 2515, 2515	

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6	2/13/20	heatertype fixed issue with FAF not summary screen updated summary	ated the efficiency print to change datasources based on showing correct data in efficiency screen and in the for HH(qryWSHHSumB) to pull from Also updated FAF to pull del. Eff from Output	
6	2/28/19	2/28/19 - updated Method field to b tblRunHeader30B, tblRunPoints, ar		
6	4/15/20	contain "," it was resolving to 1 inst IIf(Val([vmstd])+Val([vwstd])>0,Fobl([Vmstd]))),4,-1),0) Old: PercH20:	ccH20 to use Cdbl() instead of Val(). For values that ead of the numerical value. New: PercH20: ormatNumber(100*(CDbl([Vwstd])/(CDbl([Vwstd])+CD ormatNumber(100*(Val([Vwstd])/(Val([Vwstd])+Val([Vwstd])))	
6	5/29/20	5/29/20 - add button on Manual Fie query qryGasMeterNxt to get the properties the calculations. Created query qryFiereate iso calcs. The button displays form showing the Iso calcs from qryFiereate.	Id cut screen to show point to point isokinetics. Created evious end time and the next gasmeter reading for use in P2PISO to pull in qryGasMeterNxt and qryBuildCalcs to the form frmShowPtISOs which is a datasheet P2PISO filtered by the current runnumber. Note: had to a to make the P2PISO field show; for some reason, if d would not display.	
6	6/1/20		Meter Temp from point 2 point iso form.	
6	6/30/20		PS12B. Added Rata fields to tblRunLab30B; made TRunData30BHg, and rptqryPSTRATAResultsHg.	
6	7/15/20	7/15/20 - added attachment for PS1	2B Rata; added check box for PS2, PS3, and PS4 Rata's This has a note on the report if they are using wet values	
6	7/16/20	7/16/20 - 1. Statement 11 should ha In the application on the second tab front of Website URL. 2. In the excel template for E2515 a One should be Top temp; Change B import(NOT DONE) 3. In 1 hour opt. tab of excel templa since we have all of them in the Bos Same thing for flue draft; Delete FB hurt anything to delete flue draft als the second Final Leak Rate is. 4. Box A: The calendar appears who should remove the calendar; True — the Calendar is part of the settings; change it, it would change it everyw 5. Fuel Box: when you click on a ce before entering your number, really user can change 6. Preburn: In reference document, 7. I figured out the volume data sho	ve a space for website and a place for the statement for Compliance statement 11. Add "Statement and" in and the ERT, there is FB Rear Temp in both Box A and B. FB REAR to FB Top in ERT and spreadsheet te, I feel redundant to enter again the firebox temperature at A and B (and by the way, FB TOP TEMP is missing). It to be the temperature of the temperat	
6	7/27/20		oint ISO calcs from "Select Report/Table" main menu	
6	7/28/20	7/28/20 - added Vacuum to box A, boxes; for 2515Box A: took out imp	B, and C. Also made the first leak rate be Initial for all binger, added METER TEMP In, METER TEMP OUT, average of the in and out temps; Updated the import	

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		tables and routines as well as the template spreadsheet and example import spreadsheets for 2515	
6	8/4/20	8/4/20 - fuel update button on 2515 tab now only sums current run	
6	8/5/20	8/5/20 - Box A Meter Temp will now use Meter Temp In or Meter Temp Out if only one value is entered. I will average the two if both values are entered.	
6	8/17/20	8/17/20 - WS Checklist now prints Yes/No; HH Summary Navg(HHV) is now displayed in %; using wet RM in PS2 and PS3 now when checked; can print full report with or without 201P2P ISO's	
6	8/18/20	8/18/20 - Added OMB numbers to federal regulation table - appFedRules; added red font explanation to frmWSAPP, frmWS2515 and frm WSHHSummary; updated SCC table	
6	8/21/20	8/21/20 - RATA shows ABS() of difference; added Cgasw for NOX RATA	
6	8/24/20	8/24/20 - some rata's would not show report; 1. Problem was in qrybuildCalcsITM, the getFWT function is looking for the compound; we took out the abbreviations in apptblCOMPNDS; I fixed the function to work with this also confirmed the wet ratas work for CO and NOx	
6	8/27/20	8/27/20 - The SCC's have been added and the RATA text has changed	
6	8/28/20	8/28/20 - fixed WS Partial Part C and Part D Summary tables. The steady state times were not calc correctly and the part d did not take into account the moisture. Startup PM emission index (g/kg fuel): (([ZeroWt] - [StartWt])/2.2)/ (1+[qryWSB415Results].[MCdry]/100) Steady State PM emission index (g/kg fuel): (([StartWt]-[EndWt])/2.2)/ (1+[qryWSB415Results].[MCdry]/100) End PM emission index (g/kg fuel): (([EndWt]-[FinalWt])/2.2)/	
6	8/28/20	(1+[qryWSB415Results].[MCdry]/100) 8/28/20 - updated the WS 2515 import to include the Fuel table also fixed the above Part D calcs by adding the PM to the start of each equation!	
6	9/21/20	9/21/20 - Fixed the isokinetic equation (1-(H2O))/100	
6	10/29/20	10/29/20 - Fixed recovery calculation for Method 30B- Section 1 and section 2 now summed for each sorbent tube in apptblFieldDesc. AM3=SpikeRecovery([AM1]+[AM2],[AVT],[AMS],[BM1]+[BM2],[BVT],[Forms]![frmRu nDataDetailsMaster]![subForm]![subfrmHdrData30B]![MercuryMassUnits]) BM3=SpikeRecovery([BM1]+[BM2],[BVT],[BMS],[AM1]+[AM2],[AVT],[Forms]![frmRu nDataDetailsMaster]![subForm]![subfrmHdrData30B]![MercuryMassUnits]); in apptblFieldDesc, removed Section 1 from the field description of Spike Recovery (Crec) and Recovery Percentage (R)B; SCC table 30700110 recovery furnace added measure, material and action; in qryBuildCals and apptblFieldDesc changed 460 F to 459.67 in Qsd, PercI, Vmstd, VmstdA, VMstdB, Vs, VwstdA, and VwstdB; changed molecular wt of water from 18.0 to 18.015 in Vwstd, VwstdA, VwstdB; Removed DeltaPave from the frmRunDataDetails and frmRunData30B because it was not the ave delta P; updated apptblVersion	
6	11/19/20	11/19/20 - updated SCCs, updated p2piso with temperature correction and molecular wt of	
	15.0	water, updated help contact information	
6	12/7/20	12/7/20 - correct links to Mod method 26ASubS, added PRA link to splash page, printed history update and zipped ERTv6 12/7/20 for posting	
6	2/24/21	2/24/21 – Changed version check to point to new ERT Drupal site	

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6	3/24/21	3/24/21 - Corrected qryspikevalues30B to calculate recoveries correctly (was not taking into account both fractions); added mg/wscm mg/scm and mg/acm at stack conditions; added blank process units of measure, material and action to SCC table for processes with no blanks so process can be specified if not available for primary aluminum; correct Vwstd formula for converting from grams to lb in Vwstd, VwstdA, VwstdB; added sqrtDeltaPave and removed Average velocity head from the report; fixed report to display 3 decimal for sqrtdeltaPave; fixed display of results in reports by formatting numbers; corrected a format issue that was causing ppm not to calculate - 3-25-21	
6	4/7/21	4/7/21 - corrected the Mfd calculation so it would not truncate to two decimal places; FormatNumber(1-(IIf(Val([PercH20])>Val([PercH20sat]),[PercH20sat],[PercH20])/100),4) AS MfdCalc, FormatNumber(IIf([tblrunheader].[Method]="Method 26" And IsNull([DeltaPavg]),"",[MfdCalc]),4) AS Mfd; Ms, Md - 4 decimal places, squareroot of delta Paverage 6 decimal places - makes calculations for flow rate closer to excel calculations (approximately 0.1% difference). Updated manual formulas.	
6	4/26/21		30400103, and 30400110 - secondary aluminum
6	5/6/21	Corrected Ms formula; established lin	k to formula for square root of delta P
6	8/4/21	formula on form frmRunDataITM	Cal30B; add Method 9 to Method selection list; fixed ad of displaying mid cal cert date; added PAH
6	2/28/2022	•	6, and compounds to ERT; added SCC for Primary r;
6		4 20 2022 - 508 compliance; 5 4 2022 efficiency to percent instead of decim	fixed qryWSAdjRateSum - summary table HHV al
6		0039, 0030, 0031, 0040, 0050, 0051, 0060, 0100, 105, 106, 107, 107 115, 14A, 15, 15A, 16, 16A, 16B, 160	onitrile, link methods with compounds added Method A, 108, 108A, 108B, 108C, 10A, 10B, 11, 111, 114, C, 3, 310, 312, 313, 318, 320, 321, and 323, 3B, 3C, 6, 6A,
6		•	support "Other Methods"; updated logic to support
6		5-22-2023-Fixed bugs preventing new working as expected	"Other Methods" tables, forms and logic from
7		8-21-23-added ug/wscm to units of m instrumental form; updated SCC Mea column	easure list; removed next and previous buttons for sure
7		9-6-23 fixed web links on frmAdmin 508 compliance; added SCC warning creating new PDS from template; 10/2	
7		12-8-23 updated fed reg list; added m methods; fixed sum of Ki equation fo adjustable wood appliances; 3/5/24 ad	g/acm@160C; added methods; 12/20/23 added NCASI r lded OTM-50, corrected chloroform MW
7	3/11/24	3/11/24 release of Miscellaneous Met	
7	3/26/24	selecting associated process run on	nit of measure on Miscellaneous method table; fixed added calculated values to xml schema
7	5/28/24	The state of the s	llation, removed facfax and testfax, fixed sorting of nees;

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7 2/12/2025 fixed Miscellaneous methods table to allow multi updated SCC lists - added units, material and acti horsepower-hr of work output and lb per MMBtu propane. Total HC as propane and Total NMHC a		updated SCC lists - added units, mater horsepower-hr of work output and lb p	rial and action for reciprocating engines g per