

Release Notes for MDC v4.1.42

This version of the MDC software supports flow RATA data from testing on rectangular ducts (using the new optional wall effects conditional test method (CTM-041)). It also fixes some minor bugs and other problems reported in the previous version of v4.1. Changes associated with rectangular ducts are described in Table 1 below. Other changes are summarized in Table 2 below.

Table 1: Changes in MDC v4.1.42 to support Rectangular Duct Flow RATAs

Module	Function	Spec/RT	Problem/Change Description
MDC General	Data Entry	RT 611	For RT 611, Reference Method Used (col. 23) Codes added to picklist: D2J (Method 2, With Default WAF From Conditional Test Method CTM-041), M2J (Method 2, With Measured WAF From Conditional Test Method CTM-041), 2FJ (Method 2F, With WAF (either measured or default) From Conditional Test Method CTM-041) and 2GJ (Method 2G, With WAF (either measured or default) From Conditional Test Method CTM-041).
		RT 614	Flow Rate Reference Method Used (col. 42) Codes added to picklist: 2FJ (Method 2F, With WAF (either measured or default) From Conditional Test Method CTM-041), 2GJ (Method 2G, With WAF (either measured or default) From Conditional Test Method CTM-041).
	QA Evaluation	RATA-33A-F	Reference Method Check for Flow RATAs. Added the new codes for Rectangular Ducts.
		RATA-34	RT 614 Completeness Check. Added new codes.
		RATA-35	Stack Diameter and Area Check. Skip check A if Reference Method is "2FJ" or "2GJ."
		RATA-36	Check of Calculated WAF for the Operating Level. Message for Error A changed to include "or Conditional Test Method (CTM) 041."
		RATA-37	Default WAF check. Checks A, B, C and E changed.
		RATA-41	Probe Type Check. Added functionality for new codes.
		RATA-44A	Added new reference methods 2FJ and 2GJ (RT 615) in generation of error message A.
		RATA-45	Calc of Traverse Point Velocity w/o Wall Effects. Added new codes in check.
		RATA-46A	Added new reference methods 2FJ and 2GJ (RT 615) in generation of error message A.
		RATA-48	Determination of Avg Run Velocity w/o Wall Effects. New code added to check for B.
RATA-52	Determination of Avg Wet Stack Flow. Account for new codes for Ref Methods.		
RATA-54	Method D2H Check. Error message changed.		

Table 2: Other Changes in MDC v4.1.42

Module	Function	Spec/RT	Problem/Change Description
MDC General	Data Entry	RT 629/630	Fixed bug which caused crash, Foxpro error message, or bogus MDC error message when adding RT 629 or RT 630. Crash occurred immediately after selecting the type of test for entry.
		RT 600	Fixed bug where 7 Day Cal test dropped last run. If the user manually entered 14 injections of a 7 Day Cal (7 High, 7 Zero) , evaluated the Data, and then exited the form, the last run was not saved.
		RT 621	Fixed bug which caused MDC to crash when adding Cycle Time test when user tried to save test on exit.
	Data Import	RT 621	Fixed bug which caused the MDC Import process to stall when RTs 621 had Component IDs that were not defined in MDC.
	MP Evaluation	NBP-2E	Fixed check to correctly produce error for OTC-SUBH RT 505 for a unit in non-OTC State.
		ARP-27A	ARP-27A error changed to not be generated if the Source of Value in RT 531 column 41 is "APP"
		NBP-49	For parameter NOXU in RT 531, changed the acceptable Source of Value codes to include DATA.
		ARP-73F	ARP-73 changed to allow Methodology MTB.
	QA Evaluation	RT 651	Increased upper range check on F-factor to 22,000 to account for blast furnace gas.
	Reports	Monitoring Plan Printout for RT 506	Changed the column name for the EIA Facility ID in RT 506 on the MP Printout report to match the EDR instructions. (Changed to "EIA Facility ID" instead of "EAI Facility/ORISPL Number")
Helpfile	Test Extension/Exemption Update	Moved the Extension/Exemptions to be in the Test Extensions/Exemptions book (Previously were located in the QA Test Data Book)	
LME Module	LME Data Evaluation	Calculation	Fixed problem with transition hour between old and new RTs 531. (Was not using either the old or new RT 531 value for an hourly record in MDC LME with the same date/time as the no longer effective record.)
		LME-1	Added OGS and PRG as valid fuel type codes.
MDC Hourly	Calculations	RT 212 Moisture calc	Added work-around to correct internal Visual Basic calculation bug.
		Appendix D Mass Oil Calculation	Fixed to calculate hourly mass oil flow correctly for an Appendix D fuel flow system.
		F-factor check	Expanded ranges of allowable F-factors.
		Invalid HI Calculation Error Messages	Fixed problem which produced invalid HI Calculation Error Messages when RT 220 was reported for calculating NOX Mass but HI was calculated using Appendix D.

Table 2: Other Changes in MDC v4.1.42 (cont.)

Module	Function	Spec/RT	Problem/Change Description
MDC Hourly (cont.)	QA Status Evaluation	QA Test Status	Expanded QA Test Status fields from 60 to 75 characters to support long descriptions for RT 556 Events.
		OOB - Test Aborted	Fixed the situation where an error was generated for an Aborted Test although appropriate RT 556 record was reported
		Hourly Data Evaluation Report	Fixed report to include last detail line of group when that line is the first line on a new page.
		Conditional Data Validation	Modified the RATA and Linearity Test Status Determinations to recognize RT 556 conditional data information where the date/time of the event is equal to the failed test end date/time.
		QA Test Status	Added check to ensure system is active during quarter of evaluation.
		Linearity QA Status	Added check to ensure that diluent component used to measure heat input is part of an active system.
		Linearity QA Status where RT 556 has blank component ID	At Step 5 of Linearity QA Status specs, changed logic to find RT 556 events where the System ID matches but the component ID is blank and the Event code equals 120, 125, 130 or 200 (and Code for Required test still meets same criteria).
	Login	Bad Connection String in MDC Hourly	Fixed bug which in rare circumstances, caused MDC Hourly to crash when attempting to login to the database due to the "persist security info" setting in the connection string. This setting was removed.
	Import	2nd Import into MDC Hourly	Fixed bug where, under certain circumstances the 2nd file import during an MDC Hourly session caused a crash due to a closed connection.