North Carolina Division of Air Quality

Quality Assurance Project Plan

2.52 Aldehydes by TO-11a

Section 4.3

Raleigh Central Office Responsibilities

**Standard Operating Procedure to
Transfer Aldehyde Data from the Master
Spreadsheet to Text Files for AQS**

Version 2015

Submitted by:
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Approval Sign-Off Sheet

I certify that I have read and approve of the contents of this SOP to Transfer Aldehyde Data from the Lab to the Master Spreadsheet with an effective date of 8/28/15.

_____   7/29/15
John Holland, UAT Quality Assurance Coordinator   Date

_____   8/12/2015
Joette Steger, PPB Supervisor   Date

_____ for Jim Bowyer   8/12/15
Jim Bowyer, LAB Supervisor   Date

_____ for Donald Redmond 8/12/15
Donald D. Redmond, Jr., Ambient Monitoring Section Chief   Date

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2.52.4.3 Standard Operating Procedure to Transfer Aldehyde Data from the Master Spreadsheet to Text Files for AQS

2.52.4.3.1 Purpose: The purpose of this SOP is to describe the steps needed to transfer aldehyde analysis data from the master aldehyde spreadsheet to text files that can be submitted to AQS.

2.52.4.3.2 Equipment Description: PC connected to the network drive -- group on 'air.ncdenr.net\dfs' – usually mapped to drive letter P.

2.52.4.3.3 Directions for transferring data to the text files:

2.52.4.3.3.1   At P:\Toxics\Urban Air Toxics\Aldehyde Data\, select the folder for the year's data you want to put into text files for AQS. Create a folder for the quarter (if it does not already exist) for the data to be converted to AQS text files. Create sub-folders "Send2Dave", "Send2Sites", "TXT" and "XLS". Copy the XLS files from the previous quarter into this quarter's XLS folder.

2.52.4.3.3.2   Rename each XLS file to the year and quarter to be processed. Open each XLS file, rename the sheet name to the year and quarter, and delete the concentration data (usually in column M) leaving the compound names in the column. In the first XLS file change the Sample Date column for the first compound's rows to the correct sampling dates for the quarter, then copy and paste the dates to each compound's set of rows below. For the subsequent files copy the Sample Date column from the first file and paste in the corresponding column.

2.52.4.3.3.3   For the collocated data files where the sampler was only operated for part of the quarter, the site names, county codes and site codes will need to be changed and the dates processed as with the first XLS file adding or removing rows so there are the correct number of rows for the number of sampling dates in the quarter for each compound.

2.52.4.3.3.4   Open the master Excel file named AldehydeDataYYYY_Spreadsheet.xls where YYYY is the year. Go to the sheet for the first site to process (for example "Blackstone"). At the far right side of the data copy the formulas from the row above to all the rows for the quarter being processed. This formula rounds and formats the data for the AQS files. Repeat for all the sites including the collocated sites.

2.52.4.3.3.5   Now copy and paste (use paste special, values) the rounded and formatted data from the step above into the corresponding columns in the site XLS files. Add the AQS null and QA codes corresponding to any flags in the master spreadsheet. Add a QA code 7 for any value below 0.1 ppb; this indicates that the value is below the lowest calibration concentration. Add a QA code ND for any value that is zero or not detected. Add a Null code TS if sample went beyond the holding time.

Commonly used AQS Null Codes		Commonly used AQS QA Codes	
Reason for no data	AQS Code	Reason to flag the data	AQS Code
Power failure	AV	Below the lowest calibration point	7
Sampler malfunction	AN	Not detected	ND
Operator error, timer set wrong, not picked up in time	AQ	Identification of analyte acceptable; reported value is an estimate	LJ
Hold time exceeded	TS	Field blank above limit	FB
Lab error, sample spilled	AR	Estimated; exceeds upper range	EH
No calibration standard	CS	Operational deviation	2
Calibration error	AT		
Bad weather	AO		

2.52.4.3.3.6   Save the XLS file as an XLS file, then save it as a "Text (Tab-delimited)(*txt)" file in the "TXT" folder. Answer "Yes" to the question "Do you want to keep using that format?" Close the file. Repeat for all the sites and collocated samplers.

2.52.4.3.3.7   When all the files have been saved as text files, open each text file in Notepad. You may be able to simply double click on the file name to open it. (If double clicking the file name does not work and you don't have Notepad handy, go to START on the bottom left hand corner of the screen. Click on All Programs, which is the first icon right above Start, and scroll up to and click on Accessories and scroll down to and click on Notepad to open it.)

2.52.4.3.3.8   Once your text file is open, highlight the space between RD and I. Right click and copy or Ctrl-C. Then go to Edit, scroll down and click on Replace or Ctrl-H. The Replace dialog box will appear.

2.52.4.3.3.9   Click in the blank beside "Find what:", right click and then paste to insert what you copied or Ctrl-V. In the "Replace with:" box put the pipe character (|) which is the shift key and the key right below backspace on the keyboard.

2.52.4.3.3.10   Then click on the box that says Replace All. How much data is being put into AQS will determine how long it will take. It may appear to stall after the first 20 lines or so but let it go, and it will replace them all.

2.52.4.3.3.11   After it has finished running go back to the Replace box, delete what is in the "Find what:" box, type in "end" after "Find what:" being sure the previous contents of that box were deleted, and delete the pipe character leaving "Replace with:" empty or blank.   Then click on Replace all. Close the Replace box when finished. Look over the data and make any correction if need be where things don't line up. Remember the pipes are where there was a separate column in the excel spreadsheet. Go to the bottom of the file and make sure there is no blank row or extraneous characters at the bottom. Save and close the file.

2.52.4.3.3.12   When all the text files have been converted to the AQS (pipe delimited) format, rename them to RDTX[quarter#]Q[2 digit year]_aldehydes[site name].TXT, for example RDTX2Q15_aldehydesBlackstone.TXT. Alternatively, you may copy all the text files to a convenient empty folder, open a Command Prompt, go to the folder and copy *.txt to RDTX[quarter#]Q[2 digit year]_aldehydes, for example RDTX2Q15_aldedhydes.TXT. Copy that file (or the multiple site files) into the "Send2Dave" folder for this quarter and to P:\Ambient\PUB\RegOffices.NC\AQS\Manual Upload Files\. Notify the AMS Data Manager.

2.52.4.3.3.13   Prepare a MS Excel spreadsheet for each site from the master spreadsheet, save them in the "Send2sites" folder and send them to the respective site operators.