



TOTALFLOW

Technical Bulletin 157

NGC Calibration using Calibration Blends without Neo-Pentane

Totalflow Technical Bulletin

Version 1.0, Revision AB (14 November 2007)



1. Purpose

This bulletin pertains to customers using a calibration blend without the presence of Neo-Pentane (NeoC5). All calibration blends currently being sold by ABB Totalflow have Neo-Pentane included in the calibration blend. If the calibration blend is being supplied by ABB Totalflow or has Neo-Pentane then this bulletin does not apply to your calibration steps and should be IGNORED.

2. Description

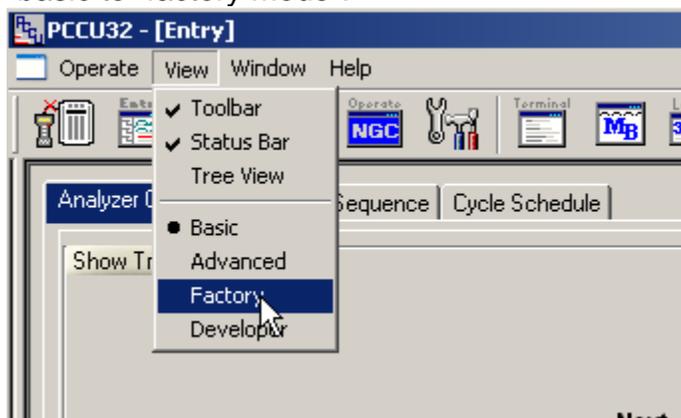
The NGC provided in this shipment has default configuration files that expect Neo-Pentane to be included as a component in the calibration blend used to calibrate the NGC chromatograph.

By default, the unit will not accept a calibration without the presence of Neo-Pentane in the calibration blend and the resulting alarm will be “missing Peak”.

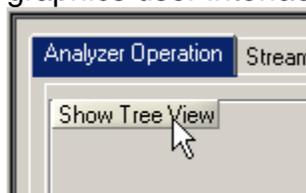
The user should follow the steps outlined below to disable Neo-Pentane which will result in a successful calibration without the presence of Neo-Pentane in the calibration blend. After calibration, the unit will ignore any presence of Neo-Pentane in a process stream associated with this calibration.

3. Steps to Disable Neo-Pentane

Step #1 – Using PCCUNGC connect to the NGC and change the view from “basic to “factory mode”.



Step #2 – Display the treeview by selecting the “treeview” button from the graphics user interface (GUI)



Step#3 – Select “stream 1, “setup” and make sure the value for “sum IC5 and NeoC5” is set to “no”. The unit will not calibrate if this value is set to “yes”

38.0.9	Processing Mode	Auto
38.0.10	Assigned Stream	Stream #1
38.0.35	Resp Mult Auto Cal Event	No
38.0.36	Resp Fact Auto Cal Event	No
38.0.37	Resp Offset Auto Cal Event	No
38.4.14	Peak Deviation Window	0.0750
38.0.27	Push Component Id	Yes
38.0.5	Sum IC5 & NeoC5	No
38.1.24	C6+ Index Split Mode	47.14% C6 35.34% C7 17.19%

Step #4 - Select “stream 1, “setup”, “calculation setup” and change the “total” value for NeoC5 from “yes” to “no”. Press the “send” button after making the change.

	Comp Id	Split Reg	Cal Split Reg	Temp Split Reg	Total
38.32.0	C3	0.0.0	0.0.0	0.0.0	Yes
38.32.1	IC4	0.0.0	0.0.0	0.0.0	Yes
38.32.2	HC4	0.0.0	0.0.0	0.0.0	Yes
38.32.3	NEOC5	0.0.0	0.0.0	0.0.0	Yes
38.32.4	IC5	0.0.0	0.0.0	0.0.0	No
38.32.5	HC5	0.0.0	0.0.0	0.0.0	Yes
38.32.6	C6+	0.0.0	0.0.0	0.0.0	Yes

Step #5 – Make the same changes outlined in steps 3 and 4 above are completed for all remaining active streams (potentially streams 2,3 and 4) using this common calibration blend.

Step #6 – Set the calibration blend concentration for NeoC5 to zero.

Calibration Setup

Setup | Current Status | Calibration Schedule

Calibration Method
 Single Point Dual Points

First Calibration Stream
 Stream #4
 Calibration Cycles Average: 1
 Purge Cycles: 1

Second Calibration Stream
 Stream #4
 Calibration Cycles Average: 0
 Purge Cycles: 0

Calibration Limits
 Response Factor % Limit: No Rejection | 0.0000
 BTU % Limit: No Rejection | 0.0000
 Total Unnormalized % Limit: No Rejection | 0.0000

Process streams that use the calibration Stream #4.

Process Stream	Analysis App	Description
Stream #1	STREAM 1	Location of stream 1
Stream #2	STREAM 2	Location of stream 2
Stream #3	STREAM 3	Location of stream 3
Stream #4	STREAM 4	Location of stream 4

Component	% Blend 1
C3	0.99800
IC4	0.30160
IIC4	0.29970
IIEOC5	0
IC5	0.09940
IIC5	0.09960
C6+	0.03020
H2	2.52000
C1	89.52500
C02	1.01000
C2	5.01000
C6s	0.00000

Total Mole %: 100.00000

Step #7 – Calibrate unit following the steps outlined in ABB Totalflow’s startup guide or user manual.

Conclusion

Once the above changes are made, the unit will calibrate correctly by ignoring the NeoC5 component. The unit will always ignore any presence of NeoC5 in any process stream using the non-NeoC5 calibration blend to calibrate.

If there is a need to measure and calculate NeoC5 on a process stream then a representative calibration blend needs to be obtained without making any of the changes described above. In this case the NeoC5 concentration entered would be the value listed on the calibration blend for NeoC5.

If you have technical questions concerning this bulletin contact our service organization at (800) 442-3097 option #2.

