Note: 000116

Overview

Number	**000116**
Description	**BCS 30x Collective Note - Corrections & Industrial Gases - Enhancements**
Version	**01 from 02.04.2024**
Status	**Released to Customer**
Language	**EN**
Responsible	**Markus Seng**
Product	**BCS**
Category	**Correction - SAP Integration**

Symptom

IMPORTANT:

This note does not contain content of any other QuantityWare Notes, i.e. It is **not** a "collection" of previous notes. This note provides:

- The official release of the QuantityWare BCG high pressure industrial gases support - see industrial gases FAQ for details.

- A collection of small quality measures collected over a period of time, after the release of BCS 30A CSP03 / BCS 30B CSP02 in Q4 2023

List of small quality measures delivered:

1. Issue: Some BCG conversion groups contain function /QTYW/MQCI_BCG_CALC_ABS_PRESS or /QTYW/MQCI_BCG_CALC_ABS_PRESS2 . If the conversion group is set to enter pressure values as absolute pressure values, the conversion group check still reports that pressure values are gauge values. This can only be rectified by removing function /QTYW/MQCI_BCG_CALC_ABS_PRESS or /QTYW/MQCI_BCG_CALC_ABS_PRESS2 from the configuration.

2. Issue: AGA Report No. 8 Part 1 BCG Calculation Scenarios require the complete molar (or volume % / mass %) composition, which needs to add up to 100% / 1 mol. Individual components are also required to lie within standard specific range limits. If such a limit is exceeded, an error message is issued. This message does not specify the component that exceeds the range limit.

3. Issue: AGA Report No. 8 Part 1 second endition 1994 / print 2003 and third edition 2017 provide different range limits for the maximum allowed mole fractions of natural gas components for the detailed method; ongoing research is made to provide good and reliable accuracy levels of compression factor calculations. E.g., natural gas mixtures with a high helium content (up to 10 mole %) are common in regions where helium is produced. With the AGA Report No. 8 Part 2 - GERG 2008 - implementation these gases can be treated, but the current AGA Report No. 8 Part 1 detailed method implementations contains hard coded range checks (e.g. for helium of 3 mole %).

4. Issue: The AGA Report No. 8 Part 2 - GERG 2008 implementation allows compression factor calculations e.g. for very high helium fractions, up to 100%. For 100% helium, a heating value check with message /QTYW/BCG 226 is raised (as for for all other non-combustible gases, e.g. nitrogen, argon, ...).

5. In the PMC, the list printing of ASTM D1250-04 displays ASTM D2150-04.

Cause

1. Incomplete check logic
2. Cut & paste issue & usage of one message only
3. Check logic based on AGA Report No. 8 Part 1 - 1994 limits
4. Assumption that gases are always combustible is not valid any more
5. Typographical error

Solution

1. Code enhancement - extended check logic such that function does not have to be removed.
2. Code enhancement - provide several messages with more parameters - component name, allowed limit and actual limit defined in long text of relevant message.
3. Code enhancement - allow to turn off global range checks via conversion group indicator "Extend range of standard implementation".Then, customer specific range checks should be configured.
4. Code enhancement - remove check.
5. Correct typo.

Transport Reference

SAP Release	Transport	File Name	Notes
ECC600	QOIK900383	NOTE-00116-30x.SAR	
S/4 HANA	QOIK900383	NOTE-00116-30x.SAR	

Validity

SAP Release	From SP	To SP	In SP Shipment
ECC600	BCS 3.0 CSP03	BCS 3.0 CSP04	BCS 3.0 CSP04
S/4 HANA	BCS 3.0 CSP02	BCS 3.0 CSP03	BCS 3.0 CSP03