Verification Procedure & Results

Test Procedure Document No.:	Test Procedure Rev.:
3102-00052	1-00

Test Case Name:	Test Plan Document #	Test Plan Rev.:	Test End Date:
Hydrogen Detection Test Procedure	3102-00050	1-00	

Test Conductor (Print Name)	Signature	**Design Engineer** (Print Name): Matthew Palanza	Approval Signature	Date: 21-May-2014
Test Director (Print Name)	Signature	**System Engineer** (Print Name): Sheri White	Approval Signature	Date: 22-May-2014
Witnessed by (Print name)	Signature	**QA/QC Engineer** (Print Name): Gary Cook	Approval Signature	Date: 22-May-2014
DOORS Verification Procedure ID: N/A	**DOORS Verification Event ID**: N/A	**Test Results Reviewed**	**QA:**	Date
			Test Dir.	Date

Test Description

The purpose of this test is to verify the Hydrogen detection system.

Requirements Addressed

L4-CG-SB-RQ-364 Instrument wells with rechargeable AGM batteries shall contain a mechanism for measuring hydrogen concentration with a resolution of 0.25% per volume.

Test Setup

A DCL with RKI Instruments, M2A Hydrogen sensor and interface installed. The hydrogen sensor calibration kit: RKI Instrumets 81-F004RK-LV. An operator will monitor data in real time via an Ethernet connection to the platform controller. Read and understand: 65-2405RK Combustible Gas Transmitter Operator's Manual

Test Artifacts

3102-00050

Test Procedure 3102-00052 Rev 1-00				Test Results		
Step#	Instructions	Expected Results	Requirement ID	Observed Results	Pass/Fail	Notes
1	Set up the test configuration as described in the Test Setup					
2	Power on the operator laptop					
3	Power on the platform controller					
4	Establish Ethernet connection with the platform controller					
5	Monitor DCL 2, Channel 2					
6	Verify Hydrogen is in a fresh air environment					
7	Verify a reading of 0% LEL on DCL 2, Channel 2	0% reading on platform control interface				
8	Conduct: "Setting Zero Signal" Procedure, page 7: 65-2405RK Combustible Gas Transmitter Operator's Manual	0% reading on platform control interface				
9	Screw the calibration cup onto the bottom of the detector					
10	Connect calibration gas cyclinder to calibration cup with flexible hose					
11	Place controller into calibration mode (refer to manual)					
12	Screw regulator into the zero air calibration cylinder					
13	Open regulator					
14	Allow gas to flow for one minute					
15	Monitor DCL 2, Channel 2	Reading should rise to 100% LEL				
16	Review hydrogen measurement results to determine resolution for hydrogen sensor	Resolution of 0.25% or better	L4-CG-SB-RQ-364			