



## **SCOPE OF ACCREDITATION**

**BC Hydro**  
**POWERTECH LABS INC.**  
**12388 88th Avenue**  
**Surrey, BC**  
**V3W 7R7**

Accredited Laboratory No. 576  
(Conforms with requirements of ISO/IEC 17025:2005)

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**CLIENTS SERVED:** All interested parties

**FIELDS OF TESTING:** Chemical/Physical, Electrical/Electronic, Mechanical/Physical

**PROGRAM SPECIALTY AREA:** Environmental

**INITIAL ACCREDITATION DATE:** 2005-01-13

**SCOPE ISSUED ON:** 2019-02-25

**ACCREDITATION VALID TO:** 2021-10-02

### **CONSTRUCTION**



**Road and Railway & Civil Constructions:**

**Dams**

USACE CERL TR 99/104 Greaseless Bushings for Hydropower Applications

**ELASTOMERS AND PROTECTIVE AND OTHER COATINGS**

**Paints; Varnishes; Inks; Coatings; and Allied Products:**

ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials
ISO 9227	Corrosion tests in artificial atmospheres - Salt spray tests

**ELECTRICAL PRODUCTS AND ELECTRONIC PRODUCTS**

**Communications Equipment and Systems:**

**Components and Assemblies**

DNVGL-CG-0339	Environmental test specification for electrical, electronic and programmable equipment and systems Only for: Clause 6 Vibration tests, except for Table 9 Extreme vibration strain
IEC 60068-2-27	Environmental Testing – Part 2-27: Tests - Test Ea and guidance: Shock
IEC 60068-2-6	Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)
IEC 60068-2-64	Environmental testing - Part 2-64: Tests – Test Fh: Vibration, broadband random and guidance
IEC 60945	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results Only for: Clause 8.7 Vibration
IEC 61373	Railway applications - Rolling stock equipment - Shock and vibration tests



## **Telecommunications Equipment**

AeroMACS RCT WMF-  
T25-006-R010

WiMAX Forum® AeroMACS Radio Conformance Tests

### **Components and Assemblies:**

#### **Electrical Rotating Machines**

IEEE 1043	IEEE Recommended Practice for Voltage Endurance Testing of Form-Wound Bars and Coils
IEEE 1310	IEEE Recommended Practice for Thermal Cycle Testing of Form-Wound Stator Bars and Coils for Large Rotating Machines
IEEE 1553	IEEE Standard for Voltage Endurance Testing of Form-Wound Coils and Bars for Hydrogenerators

#### **Insulators**

ANSI C29.1	American National Standard for Electrical Power Insulators - Test Methods Only for: Clause 4.2 Low-Frequency Dry Flashover Voltage Tests Clause 4.3 Low-Frequency Wet Flashover Voltage Tests; Clause 4.4 Low-Frequency Dry Withstand Voltage Tests; Clause 4.5 Low-Frequency Wet Withstand Voltage Tests; Clause 4.7 Impulse Flashover Voltage Tests; Clause 4.8 Impulse Withstand Voltage Tests. Clause 4.9 Radio Influence Voltage
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#### **Switches and Controls**

ANSI/NEMA C37.54	Indoor Alternating Current High-Voltage Circuit Breakers Applied as Removable Elements in Metal-Enclosed Switchgear - Conformance Test Procedures Only for: Clause 3.5 Lightning Impulse Withstand Voltage Tests Clause 3.6 Continuous Current Carrying Tests Clause 3.8 Load Current Switching Tests Clause 3.9 Short Time Current Carrying Tests Clause 3.10 Short-Circuit Current Tests Clause 6.2 Power Frequency Withstand Voltage Tests
ANSI/NEMA C37.55	Switchgear - Medium Voltage Metal-Clad Assemblies - Conformance Test Procedures Only for: Clause 5.5.2 Power-Frequency Withstand Voltage Tests Clause 5.5.3 Lightning Impulse Withstand Tests



	Clause 5.7 Continuous Current Test
	Clause 5.8 Short-Time Withstand Current Test
	Clause 5.9 Momentary Withstand Current Test
ANSI/NEMA C37.57	Metal-Enclosed Interrupter Switchgear Assemblies - Conformance Testing
	Only for: Clause 4.5.2 Power-Frequency Withstand Voltage Tests
	Clause 4.5.3 Lightning-Impulse Withstand Test
	Clause 4.7 Continuous Current Test
	Clause 4.8 Short-Time Withstand Current Test
	Clause 4.9 Momentary Withstand Current Test
ANSI/NEMA C37.58	Indoor AC Medium-Voltage Switches for Use in Metal-Enclosed Switchgear - Conformance Test Procedures
	Only for: Clause 4.5 Lightning Impulse Withstand Test
	Clause 4.6 Continuous Current Test
	Clause 4.7.2 Momentary Withstand Current Test
	Clause 4.7.3 Short-Time Withstand Current Test
	Clause 4.9 Load-Switching Current Test (If Rated)
CSA C22.2 No. 31	Medium Voltage Metal-Clad Assemblies
	Only for: Clause 6.1 Temperature
	Clause 8.5.1 Dielectric strength tests
	Clause 8.5.2 Impulse tests
	Clause 8.5.3 Corona-extinction tests
	Clause 8.5.4 Short-circuit withstand rating
CSA-C22.2 No. 253/ UL 347	Medium-Voltage AC Contactors, Controllers, and Control Centers
	Only for: Clause 6.2.201 Impulse withstand tests
	Clause 6.2.202 Power-frequency voltage withstand tests
	Clause 6.5 Temperature Rise Test
	Clause 6.6 Short-Time, Momentary and Peak Withstand Current Bus Tests
	Clause 6.102 Make and Break Capacity Test
	Clause 6.103 Overload Test
	Clause 6.104 Fault Interruption Test
	Clause 6.202 Short Time Capability
IEC 62271-111/ IEEE C37.60	High-voltage switchgear and controlgear - Part 111: Automatic circuit & reclosers and fault interrupters for alternating current systems up to 38 kV
	Only for: Clause 6.2 Dielectric tests
	Clause 6.4 Measurement of the resistance of circuits
	Clause 6.5 Temperature-rise tests
	Clause 6.6 Short time withstand current and peak withstand current tests
	Clause 6.101 Line charging current and cable charging current interruption tests
	Clause 6.102 Making current capability
	Clause 6.103 Rated symmetrical interrupting current tests



	Clause 6.106 Partial discharge (corona) tests
	Clause 6.111.3 Simulated surge arrester operation test
	Clause 6.112 Condition of recloser/FI after each test of 6.101, 6.103 and 6.104
IEEE 386	IEEE Standard for Separable Insulated Connector Systems for Power Distribution Systems above 600 V Only for: Clause 7.6 Short-time current test Clause 7.7 Switching test Clause 7.8 Fault-closure test
IEEE C37.09	Standard Test Procedure For AC High-Voltage Circuit Breakers Rated On A Symmetrical Current Basis Only for: Clause 4.1 Maximum voltage tests Clause 4.2 Power Frequency Clause 4.3 Continuous Current-Carrying Tests Clause 4.4.3 Power Frequency Withstand Voltage Tests Clause 4.4.4 Full-wave lightning impulse withstand voltage tests Clause 4.4.5 Impulse voltage test for interrupters and resistors Clause 4.4.6 Chopped wave lightning impulse withstand voltage tests Clause 4.4.7 Switching impulse voltage withstand tests Clause 4.5 Standard operating duty (standard duty cycle) Clause 4.6 Interrupting time Clause 4.7 TRV Clause 4.8 Short-circuit current interrupting Clause 4.9.1 Load current switching test conditions Clause 4.9.2 Load current endurance switching test Clause 4.12 Out-of-phase switching current
IEEE C37.09a	Standard Test Procedure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis Amendment 1 - Capacitance Current Switching Only for: Clause 4.10 Capacitance current switching tests
IEEE C37.20.2	Standard for Metal-Clad Switchgear Only for: Clause 6.2.1 Dielectric tests Clause 6.2.2 Rated continuous current tests Clause 6.2.3 Momentary withstand current tests Clause 6.2.4 Short-time withstand current tests Clause 6.2.5 Auxiliary equipment primary disconnecting device momentary current withstand test
IEEE C37.20.3	Standard for Metal-Enclosed Interrupter Switchgear Only for: Clause 6.2 Dielectric tests Clause 6.5 Temperature-rise tests Clause 6.6 Short-time withstand current and peak withstand current tests Clause 6.14.1 Test for bus-bar insulation



- IEEE C37.20.4 IEEE Standard for Indoor AC Switches (1 kV to 38 kV) for Use in Metal-Enclosed Switchgear  
Only for: Clause 6.6 Short-time withstand current and peak withstand current (formerly momentary) tests  
Clause 6.13 Fault-making test  
Clause 6.14 Load-switching current test  
Clause 6.15 Cable-charging current switching test (optional)  
Clause 6.16 Unloaded-transformer switching test (optional)  
Clause 6.17 Direct-acting fuse-tripping current test (optional)
- IEEE C37.20.7 IEEE Guide for Testing Metal-Enclosed Switchgear Rated Up to 38 kV for Internal Arcing Faults  
Only for: 5 Arcing Fault
- IEEE C37.23 Metal-Enclosed Bus  
Only for: Clause 6.2.1.1 Power Frequency Withstand Voltage Tests  
Clause 6.2.1.2 Lightning impulse withstand voltage tests  
Clause 6.2.1.3 Test for bus-bar insulation, bus-joint insulation, and bus-tap insulation  
Clause 6.2.2 Continuous-current  
Clause 6.2.3 Momentary withstand current  
Clause 6.2.4 Short-time withstand current
- IEEE C37.30.1 Standard Requirements for AC High-Voltage Air Switches Rated Above 1000V  
Only for: Clause 8.1.1 Power frequency withstand voltage tests  
Clause 8.1.2 Lightning impulse dry withstand voltage tests  
Clause 8.1.3 Power frequency and lightning impulse open gap withstand voltage tests  
Clause 8.1.4 Switching impulse voltage test of switches rated 362kV and above  
Clause 8.2 Temperature rise tests  
Clause 8.3 Short-time Withstand Current Tests  
Clause 8.4 Fault-making current test  
Clause 8.7 Corona tests
- IEEE C37.41 ANSI/IEEE Standard Design Tests for High-Voltage (> 1000V) Fuses and Accessories  
Only for: Clause 8.2 Power-frequency dry-withstand voltage tests  
Clause 8.3 Power-frequency wet-withstand voltage tests on outdoor devices  
Clause 8.5 Lightning impulse-withstand voltage tests  
Clause 9 Interrupting tests  
Clause 11 Temperature-rise tests  
Annex A.4 Short-time withstand current tests for disconnecting switches  
Annex A.5 Load-break tests
- IEEE C37.42 IEEE Standard Specifications for High-Voltage (> 1000 V) Expulsion-Type Distribution-Class Fuses, Fuse and Disconnecting



Cutouts, Fuse Disconnecting Switches, and Fuse Links, and Accessories Used with These Devices  
Only for: Clause 3.3.1 Dielectric tests  
Clause 3.3.2 Interrupting [breaking]  
Clause 3.3.5 Short-time current tests for disconnecting cutouts  
Clause 3.3.6 Temperature-rise tests

IEEE C37.45 IEEE Standard for Design Test Specifications for High Voltage (> 1000 V) Distribution Class Enclosed Single-Pole Air Switches  
Only for: Clause 8.1 Dielectric tests  
Clause 8.3 Short-time current tests  
Clause 8.4 Temperature-rise tests

IEEE C37.46 Specifications for High-Voltage (>1000 V) Expulsion and Current-Limiting Power Class Fuses and Fuse Disconnecting Switches  
Only for: Clause 4.1 Dielectric tests  
Clause 4.2 Interrupting [breaking]  
Clause 4.4 Temperature-rise

IEEE C37.66 IEEE Standard Requirements for Capacitor Switches for AC Systems (1 kV to 38 kV)  
Only for: Clause 6.2 Insulation (dielectric) tests  
Clause 6.3 Short-time current tests  
Clause 6.4 Rated fault-making current tests

IEEE C37.74 Standard Requirements for Subsurface, Vault, and Pad-Mounted Load-Interrupter Switchgear and Fused Load-Interrupter Switchgear for Alternating Current Systems up to 38 kV  
Only for: Clause 6.7.2 Dielectric tests  
Clause 6.7.3 Continuous current test  
Clause 6.7.4 Short-circuit withstand current tests  
Clause 6.7.5 Switching tests  
Clause 6.7.6 Thermal runaway test  
Clause 6.7.7 Partial discharge tests  
Clause 6.7.8 DC withstand voltage test

IEEE/IEC 62271-37-013 IEEE/IEC International Standard for High-voltage switchgear and controlgear -- Part 37-013: Alternating-current generator circuit-breakers  
Only for: Clause 6.2.2.1 Rated power frequency withstand voltage (dry)  
Clause 6.2.6.2 Lightning impulse voltage test



Clause 6.2.12 Sound level tests  
Clause 6.5 Temperature rise test  
Clause 6.6 Short-time withstand current and peak withstand current tests  
Clause 6.103 System-source short-circuit current making and breaking tests  
Clause 6.104 Load Current Breaking Tests  
Clause 6.105 Generator-source short-circuit current making and breaking tests  
Clause 6.106 Out-Of-Phase Current Switching Tests

## **Transformers**

IEC 61869-1 Instrument transformers - Part 1: General requirements  
Only for: Clause 7.2.2 Temperature-rise test  
Clause 7.2.3 Impulse voltage withstand test on primary terminals  
Clause 7.2.4 Wet test for outdoor type transformers  
Clause 7.3.1 Power-frequency voltage withstand tests on primary terminals  
Clause 7.3.2 Partial discharge measurement  
Clause 7.3.4 Power-frequency voltage withstand tests on secondary terminals  
Clause 7.3.6 Verification of markings  
Clause 7.4.1 Chopped impulse voltage withstand test on primary terminals

IEC 61869-3 Instrument transformers - Part 3: Additional requirements for inductive voltage transformers  
Only for: Clause 7.2.2 Temperature-rise test  
Clause 7.2.3 Impulse voltage withstand test on primary terminals

IEEE C57.12.90 Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers  
Only for: Clause 5 Resistance measurements  
Clause 6 Polarity and phase-relation tests  
Clause 7 Ratio tests  
Clause 8 No-load losses and excitation current  
Clause 9 Load losses and impedance voltage  
Clause 10 Dielectric tests  
Clause 11 Temperature-rise tests  
Clause 12 Short circuit tests  
Clause 13 Audible sound emissions

IEEE C57.12.91 Standard Test Code for Dry-Type Distribution and Power Transformers  
Only for: Clause 5 Resistance measurements





Clause 6 Polarity and phase relation tests  
Clause 7 Ratio tests  
Clause 8 No load losses and excitation current  
Clause 9 Load losses and impedance voltage  
Clause 10 Dielectric tests  
Clause 11 Temperature tests  
Clause 12 Short circuit tests  
Clause 13 Audible Sound Level Measurements

IEEE C57.13

Standard Requirements for Instrument Transformers  
Only for: Clause 8.2 Impedance excitation, and composite error measurements  
Clause 8.3 Polarity  
Clause 8.4 Resistance measurements  
Clause 8.6 Partial discharge measurement  
Clause 8.9 Measurement of Open-Circuit Voltage of Current Transformers  
Clause 9.3 Impedance measurements  
Clause 9.4 Polarity  
Clause 10.2 Impedance measurements  
Clause 10.3 Polarity  
Clause 11.2 Temperature rise tests  
Clause 11.4 Partial discharge measurement  
Clause 12.2 Current transformer temperature rise tests

## **ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY**

### **Environmental**

#### **Oil**

##### **(Total PCB in Oil)**

ACTP-5                      PCB in Waste Liquids by Gas Chromatography  
ASTM D4059                Standard Test Method for Analysis of Polychlorinated Biphenyls in  
   Insulating Liquids by Gas Chromatography

#### **Soil/Sediment**

##### **(PCB in Soil)**





	Clause 18.3.13 Hydrogen Gas Cycling Test
	Clause 18.3.14 Leak Before Break Test
	Clause 18.5.2 Ambient Cycling Test
	Clause 18.5.3 Hydrostatic Burst Test
	Clause 18.5.4 Container test for performance durability
	Clause 18.5.5 High strain rate impact test
	Clause 18.5.6 Permeation test
	Clause 18.5.7 Container test for expected on-road performance
ANSI HGV 3.1	Fuel system components for compressed hydrogen gas powered vehicles
	Only for: Clause 5.3 Hydrostatic strength
	Clause 5.4 Leakage
	Clause 5.5 Excess torque resistance
	Clause 5.6 Bending moment
	Clause 5.7 Continuous operation
	Clause 5.8.1 Salt spray exposure
	Clause 5.9 Ultraviolet resistance of external surfaces
	Clause 5.12 Abnormal electrical voltages
	Clause 5.13 Vibration resistance
	Clause 5.15 Insulation resistance
	Clause 5.16 Pre-cooled hydrogen exposure
	Clause 8.4.1 Leakage
	Clause 8.4.2 Continuous operation
	Clause 10.4.1 Continuous operation
	Clause 10.4.2 Operating torque
	Clause 11.4.1 Automatic valve
	Clause 11.4.2 Automatic container valve
	Clause 13.4.3 Insulation resistance
	Clause 14.4.1 Hydrostatic strength
	Clause 14.4.2 External leakage
	Clause 14.4.3 Continuous operation
	Clause 14.4.4 Pressure impulse
	Clause 15.4.1 Hydrostatic strength
	Clause 15.4.2 Continuous operation
	Clause 15.4.3 Opening and reseating characteristics
ANSI HPRD 1	Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers
	Only for: 7.2 Pressure Cycling
	7.3 Accelerated Life
	7.4 Thermal Cycling
	7.10 Impact due to drop and vibration
	7.11 Leakage
	7.12 Bench top activation
	7.13 Flow capacity
	7.14 High Pressure activation and flow rate



ANSI NGV 2	Compressed natural gas vehicle fuel containers Only for: Section 9.3 Leak Test Section 10.4 Burst Test Section 10.5 Cycle Test Section 16.3 Ambient Cycling Test Section 16.4 Environmental Test Section 16.5 Extreme Temperature Cycling Section 16.6 Hydrostatic Burst Test Section 16.7 Composite Flaw Tolerance Test Section 16.8 Drop Test *Section 16.9 Bonfire Test Section 16.10 Accelerated Stress Rupture Test *Section 16.11 Penetration Test Section 16.12 Permeation Test Section 16.13 Natural Gas Cycling Test Section 16.14 Leak Before Break Test
ANSI NGV3.1/ CSA 12.3	Fuel System Components for Natural Gas Powered Vehicles Only for: Clause 2.2 Hydrostatic Strength Clause 5.11 Vibration resistance
ANSI PRD 1	Pressure relief devices for natural gas vehicle (NGV) fuel containers Only for: Clause 7.10.2 Impact due to drop and vibration - vibration
ANSI/CSA HGV 4.10	Standards For Fittings for compressed hydrogen gas and hydrogen rich gas mixtures Only for: 2.3 External Leak Test 2.4 Hydrostatic Burst Test 2.5 Hydraulic Cyclic Endurance Test 2.6 Gas Cyclic Endurance Test 2.8 Explosive Decompression 2.9 Make or Break Test 2.10 Thermal Shock
CSA B51 Part 2	High-Pressure Cylinders for the On-board Storage of Natural Gas as a Fuel for Automotive Vehicles Only for: Clause 14.12 Hydrostatic Pressure Burst Test
EC 79	Implementing Regulation (EC) No 79/2009 of the European Parliament and of the Council on type-approval of hydrogen-powered motor vehicles Annex IV Only for: Part 2, Para. 4.2.1 Burst test Part 2, Para. 4.2.2 Ambient temperature pressure cycle test Part 2, Para. 4.2.3 Leak-before-break (LBB) performance test *Part 2, Para. 4.2.4 Bonfire test *Part 2, Para. 4.2.5 Penetration test Part 2, Para. 4.2.6 Chemical exposure test



Part 2, Para. 4.2.7 Composite flaw tolerance test  
Part 2, Para. 4.2.8 Accelerated stress rupture test  
Part 2, Para. 4.2.9 Extreme temperature pressure cycle test  
Part 2, Para. 4.2.10 Impact damage test  
Part 2, Para. 4.2.11 Leak test  
Part 2, Para. 4.2.12 Permeation test  
Part 2, Para. 4.2.13 Boss torque test  
Part 2, Para. 4.2.14 Hydrogen gas cycling test  
Part 3, Para. 4.2.1 Corrosion resistance test (Test a only)  
Part 3, Para. 4.2.2 Endurance  
Part 3, Para. 4.2.3 Hydraulic pressure cycle test  
Part 3, Para. 4.2.4 Internal leakage test  
Part 3, Para. 4.2.5 External leakage test

ECE R110

Uniform provisions concerning the approval of:  
I. Specific components of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system  
II. Vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system

Annex 3A, Appendix A

Only for: Para. A.6 Leak Before Break Test

Para. A.7 Extreme Temperature Cycling

Para. A.10 Leak Test

Para. A.12 Hydrostatic pressure burst test

Para. A.13 Ambient temperature pressure cycling

Para. A.14 Acid environment test

\*Para. A.15 Bonfire test

\*Para. A.16 Penetration tests

Para. A.17 Composite flaw tolerance tests

Para. A.19 Accelerated stress rupture test

Para. A.20 Impact damage test

Para. A.21 Permeation test

Para. A.25 Boss torque test

Para. A.27 Natural gas cycling test

ECE R134

Uniform provisions concerning the approval of motor vehicles and their components with regard to the safety-related performance of hydrogen-fuelled vehicles (HFCV)

Only for: Para. 5.1 Verification tests for baseline metrics

Para. 5.2 Verification tests for performance durability (sequential hydraulic tests)

Para. 5.3 Verification test for expected on-road performance (sequential pneumatic tests)

Para. 5.4 Verification test for service terminating performance in fire



Para. 9.3.2.1 Rupture test in batch testing  
Para. 9.3.2.2 Ambient temperature pressure cycling test in batch testing  
Annex 3, Para. 2 Test procedures for baseline performance metrics  
Annex 3, Para. 3 Test procedures for performance durability  
Annex 3, Para. 4 Test procedures for expected on-road performance  
Annex 3, Para. 5 Test procedures for service termination performance in fire  
Annex 4, Para. 1.1 Pressure cycling test  
Annex 4, Para. 1.2 Accelerated life test  
Annex 4, Para. 1.3 Temperature cycling test  
Annex 4, Para. 1.4 Salt corrosion resistance test (pH 4.0 only)  
Annex 4, Para. 1.7 Drop and vibration test  
Annex 4, Para. 1.8 Leak test  
Annex 4, Para. 1.9 Bench top activation test  
Annex 4, Para. 1.10 Flow rate test  
Annex 4, Para. 2.1 Hydrostatic strength test  
Annex 4, Para. 2.2 Leak test  
Annex 4, Para. 2.3 Extreme temperature pressure cycling test  
Annex 4, Para. 2.4 Salt corrosion resistance test (pH 4.0 only)  
Annex 4, Para. 2.7 Electrical tests  
Annex 4, Para. 2.8 Vibration test  
Annex 4, Para. 2.10 Pre-cooled hydrogen exposure test  
Global technical regulation on hydrogen and fuel cell vehicles  
Part II  
Only for: Para. 5.1.1 Verification tests for baseline metrics  
Para. 5.1.2 Verification tests for performance durability (hydraulic sequential tests)  
Para. 5.1.3 Verification test for expected on-road performance (pneumatic sequential tests)  
Para. 5.1.4 Verification test for service terminating performance in fire  
Para. 6.2.2 Test procedures for baseline performance metrics  
Para. 6.2.3 Test procedures for performance durability  
Para. 6.2.4 Test procedures for expected on-road performance  
Para. 6.2.5 Test procedures for service terminating performance in fire  
Para. 6.2.6.1.1 Pressure cycling test  
Para. 6.2.6.1.2 Accelerated life test  
Para. 6.2.6.1.3 Temperature cycling test  
Para. 6.2.6.1.4 Salt corrosion resistance test (pH 4.0 only)  
Para. 6.2.6.1.7 Drop and vibration test  
Para. 6.2.6.1.8 Leak test  
Para. 6.2.6.1.9 Bench top activation test



- Para. 6.2.6.1.10 Flow rate test
- Para. 6.2.6.2.1 Hydrostatic strength test
- Para. 6.2.6.2.3 Extreme temperature pressure cycling test
- Para. 6.2.6.2.4 Salt corrosion resistance test (pH 4.0 only)
- Para. 6.2.6.2.7 Electrical tests
- Para. 6.2.6.2.8 Vibration tests
- Para. 6.2.6.2.10 Pre-cooled hydrogen exposure test

## **METALLIC ORES AND PRODUCTS**

### **Articles of Metal:**

#### **Cast, Forged, Welded or Pressed Metal Components**

ASTM E18	Standard Test Methods for Rockwell Hardness of Metallic Materials
ASTM E384	Standard Test Method for Microindentation Hardness of Materials

## **NONDESTRUCTIVE EXAMINATION**

\*\*ASME BPVC-V                      ASME Boiler & Pressure Vessel Code, Section V:  
Nondestructive Examination

- Only for: Article 2 - Radiographic Examination
- Article 5 - Ultrasonic Examination Methods for Materials
- Article 6 - Liquid Penetrant Examination
- Article 7 - Magnetic Particle Examination

### **Notes:**



**Standards Council of Canada**  
**Conseil canadien des normes**

**ISO/IEC 17025:2005:** General Requirements for the Competence of Testing and Calibration Laboratories.

(\*): These tests are performed in a temporary location (Justice Institute of BC (JI), 13500 256 St, Maple Ridge, BC V4R 1C9; Or Dewdney Creek North PIT #7004 (Off Coquihalla highway, Carolin Mines exit, between Hope and Coquihalla summit).

(\*\*): These tests can be performed in the laboratory permanent facility or on-site.

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Elias Rafoul, Vice President  
Accreditation Services

Date: 2019-02-25

Number of Scope Listings: 64  
SCC 1003-15/669  
Partner File #0  
Partner: None