S

ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 661400

Proj.
ECN

2. ECN Category (mark one) Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedeure ☐ Cancel/Void ☐	3. Originator's Name, Organization, MSIN, and Telephone No. T. Nuxall, CVDF, R3-86, 372-3739	4. USQ Required? ☒ Yes ☐ No	5. Date 6/19/00	
	6. Project Title/No./Work Order No. SNF/W-441, Spent Nuclear Fuel Cold Vacuum Drying	7. Bldg./Sys./Fac. No. CVDF 142-K	8. Approval Designator S ^N Q	
	9. Document Numbers Changed by this ECN (includes sheet no. and rev.) SNF-3921, Rev. 3, SNF-3927, Rev. 2 SNF-3928, Rev. 1, SNF-3932, Rev. 2, SNF-4627, Rev. 1, SNF-3926, Rev. 2	10. Related ECN No(s). N/A	11. Related PO No. N/A	
12a. Modification Work ☐ Yes (fill out Blk. 12b) ☒ No (NA Blks. 12b, 12c, 12d)	12b. Work Package No. N/A	12c. Modification Work Complete N/A Design Authority/Cog. Engineer Signature & Date	12d. Restored to Original Condition (Temp. or Standby ECN only) N/A Design Authority/Cog. Engineer Signature & Date	
13a. Description of Change SCHe SNF-3921, Rev. 3, SNF-3927, Rev. 2, SNF-3928, Rev. 1, SNF-3932, Rev. 2, SNF-4627, Rev. 1; Revised to match previous modifications to SNF-5304. SNF-3926; This document has been cancelled it was previously merged with SNF-3929. USQ Approval: CVD-00-1135 <i>gob</i> 6/20/00				13b. Design Baseline Document? ☐ Yes ☒ No SC
14a. Justification (mark one) Criteria Change ☐ Design Improvement ☒ Environmental ☐ Facility Deactivation ☐ As-Found ☐ Facilitate Const ☐ Const. Error/Omission ☐ Design Error/Omission ☐				
14b. Justification Details Revised to match previous modifications to SNF-5304. The design verification method for SS/SC components is by independent review in accordance with EN-6-027-01. Documentation of this review is accomplished by the independent review approval signature provided on page 2 of this ECN.				
15. Distribution (include name, MSIN, and no. of copies) See Distribution

ENGINEERING CHANGE NOTICE				Page 2 of 2		1. ECN (use no. from pg. 1) 661400	
16. Design Verification Required		17. Cost Impact				18. Schedule Impact (days)	
☒ Yes		ENGINEERING		CONSTRUCTION		Improvement ☐	
☐ No		Additional ☐ \$		Additional ☐ \$		Delay ☐	
		Savings ☐ \$		Savings ☐ \$			
19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.							
SDD/DD		☐		Seismic/Stress Analysis		☐	
Functional Design Criteria		☐		Stress/Design Report		☐	
Operating Specification		☐		Interface Control Drawing		☐	
Criticality Specification		☐		Calibration Procedure		☐	
Conceptual Design Report		☐		Installation Procedure		☐	
Equipment Spec.		☐		Maintenance Procedure		☐	
Const. Spec.		☐		Engineering Procedure		☐	
Procurement Spec.		☐		Operating Instruction		☐	
Vendor Information		☐		Operating Procedure		☐	
OM Manual		☐		Operational Safety Requirement		☐	
FSAR/SAR		☐		IEFD Drawing		☐	
Safety Equipment List		☐		Cell Arrangement Drawing		☐	
Radiation Work Permit		☐		Essential Material Specification		☐	
Environmental Impact Statement		☐		Fac. Proc. Samp. Schedule		☐	
Environmental Report		☐		Inspection Plan		☐	
Environmental Permit		☐		Inventory Adjustment Request		☐	
Tank Calibration Manual		☐					
Health Physics Procedure		☐					
Spares Multiple Unit Listing		☐					
Test Procedures/Specification		☐					
Component Index		☐					
ASME Coded Item		☐					
Human Factor Consideration		☐					
Computer Software		☐					
Electric Circuit Schedule		☐					
ICRS Procedure		☐					
Process Control Manual/Plan		☐					
Process Flow Chart		☐					
Purchase Requisition		☐					
Tickler File		☐					
20. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below							
indicate that the signing organization has been notified of other affected documents listed below.							
Document Number/Revision		Document Number/Revision		Document Number/Revision		Document Number/Revision	
NA							
21. Approvals							
Signature		Date		Signature		Date	
Design Authority C. Miska		6-19-00		Design Agent			
Cog. Eng. C. VanKatwijk		6-19-00		PE			
Cog. Mgr. T. Choho		6-20-00		QA			
QA H. Chafin		6/20/00		Safety			
Safety J. Brehm		6/20/00		Design			
Independent Reviewer B. Parker		6/20/00		Environ.			
Other: * C. Haller				Other			
* Approval authorized parallel preparation of USQ screen							
with implementation of ECN per NSDI-02							
05-4-001 6/20/00							
DEPARTMENT OF ENERGY							
Signature or a Control Number that tracks the Approval Signature							
ADDITIONAL							

Ashcroft Pressure Switch - Monitor for Flow SCHe Supply Bottle Pressure

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

Fluor Hanford
P.O. Box 1000
Richland, Washington

SNF-3927
Revision 3

ECN 661400

Ashcroft Pressure Switch - Monitor for Flow SCHe Supply Bottle Pressure

Project No: W-441

Document Type: RPT

Division: SNF

C Van Katwijk
FH

Date Published
June 2000

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

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Fluor Hanford
P.O. Box 1000
Richland, Washington

Release Approval Date 6/21/00

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Total Pages: 15

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Page 1

ASHCROFT PRESSURE SWITCH - MONITOR FOR FLOW SCHe SUPPLY BOTTLE PRESSURE

Date _____

T. Choho

T. Choho

T. Choho

✓

Commercial Grade Item Upgrade Dedication Form

SNF-3927, Rev. 3

ECN No. **NA** CGI No. **CGI-SNF-D-13-P5-030**
 Title: **ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
 SUPPLY BOTTLE PRESSURE**

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Section 1 Part Information

Item No.: NA	Manufacturer:	Supplier:
Mfg. Part/Model No.:	Supplier's P/N:	
Part Description:		
End Use Description:		

Section 2a Component Information

Equipment No.: SCHe- PSL-5*03, 5*22, 5*42, 5*62	Specification No.: SNF-5304, Rev. 0 (W-441-P5, Rev. 2)	Manufacturer: Ashcroft Instrument Division	Past P.O. No.: NA
Procurement and/or Model No.: LPS-N4-K-T-25- 3000 PSI.	Equipment Supplier (if different from manufacturer): TBD		Equip. Supplier's Part No.: NA

Component Description: **These pressure switches are located in the SCHe helium supply lines at the pressure bottles and upstream of the PRV. The switches monitor the SCHe supply bottle pressure and are set to alarm at 2200 psig. There is one switch for each SCHe supply (4). Electronic output signal is NON-SAFETY (GS).**

Section 2b Qualified Vendor/Supplier Survey

- Is the Item available from a catalogue of a qualified NQA1 supplier? (coordinate with project CGI interface Engineer or BTR)
☐ YES (go to #2 below)
☒ NO (go to procedure step 5.3.2, proceed to dedicate Item.)
 If not available from a qualified NQA1 supplier, is it available from an ISO 9000 supplier? (coordinate with project CGI interface Engineer or BTR)
☐ YES (go to #2 below, then go to procedure step 5.3.2, proceed to dedicate Item)
☒ NO (go to procedure step 5.3.2, proceed to dedicate Item.)
- List of Candidate qualified suppliers or ISO 9000 suppliers

company name and type	contact name	phone
NA		
- Recommended Procurement Strategy (coordinate with project CGI interface Engineer or BTR):
NA

Section 2c CGI Determination

- Question #1: Is the Item subject to design or specification requirements that are unique to nuclear facilities or activities?
☐ YES (the Item is not commercial grade)
☒ NO (continue)
- Question #2: Is the Item used in applications other than nuclear facilities or activities?
☐ NO (the item is not commercial grade)
☒ YES (continue)

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Title: **ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE**

3. Question #3: Is the Item ordered from manufacturer/supplier on the basis or specifications set forth in the Published product information (e.g., manufacturer's catalog)?

☐ NO (the Item is not commercial grade)

☒ YES (continue)

☒ All three criteria have been satisfied. The Item meets the definition of commercial grade.

Section 2d Reason for Dedication

The above described Item is being Dedicated for use in the application cited for the following reason(s):

☒ Item is being purchased from a non ESL manufacturer supplier as commercial grade to be used in a Safety Class application.

☐ Item is being purchased from a non ESL manufacturer supplier as commercial grade to be used in a Safety Significant application.

☐ Item was purchased from a non ESL manufacturer supplier as commercial grade to be used in a Safety Class application.

☐ Item was purchased from a non ESL manufacturer supplier as commercial grade to be used in a Safety Significant application.

☐ Other ('like-for-like', similar, substitution, replacement evaluation)

Section 3 Failure Effects Evaluation

A. Part/Component Safety Function:

1. **SCHe Pressure Boundary Integrity– Prevents helium leakage from the SCHe System.**

2. **Maintain pressure boundary before and after Seismic event.**

B. Part/Component Functional Mode

Safety Function #1:

☐ Active – Mechanical or Electrical change of state is required to occur for the component to perform its safety function

☒ Passive – Change of state is not required for the component to perform its safety function

Safety Function #2:

☐ Active – Mechanical or Electrical change of state is required to occur for the component to perform its safety function.

☒ Passive – Change of state is not required for the component to perform its safety function

Safety Function #3:

☐ Active – Mechanical or Electrical change of state is required to occur for the component to perform its safety function.

☐ Passive – Change of state is not required for the component to perform its safety function

C. Host Component Safety Function (if applicable): **NA**

1.

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Title: **ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE**

D. Failure Mechanisms(s) and the effects on component or system safety function (see worksheet 1):

1. **Fracture of the switch body or of the piping connection resulting in loss of helium from the SCHe supply.**

Section 4 Environmental & Natural Phenomena Hazard Design

Environmental Qualification Required:

Yes []

No [X]

Environmental Condition B

If yes: Environmental Qualification Requirements

Limiting Environmental Conditions:

Required Safety Functions:

Qualification Period:

Natural Phenomena Hazard (NPH) Design Required:

Yes [X]

No []

HNF-PRO-97, Rev. 0

W-441-P5, Rev. 2

If yes: NPH Design Requirements

Performance Category: **PC-3**

NPH Design Req'ts.: **Seismic Condition B**

Required Safety Functions: **Pressure Boundary Integrity**

Section 5 Component Functional Classification

[X] Safety Class (SC)

[] General Service

[] Safety Significant (SS)

If part/component classification is different from host component/system, document basis.

Pressure switch is pressure boundary Safety Class (SC).

Switch electronic output signal is General Service (GS).

Section 6 [reserved]

Section 7 [reserved]

Section 8 References (for Functional Classification)

National Codes/Standards: **IEEE-344,
ISA-S5.1, -S5.4, -S18.1, -S20**

Safety Analysis Report (SAR):
HNF-3553, Rev. 0a, Annex B

Drawings: **H-1-82165, Rev. 2
HNF-SD-SNF-SEL-002, Rev.
6a CVDF-SSD-003**

Vendor Manuals/Manufacturer/Supplier Information: **Ashcroft Instrument Division, L Series Switches,
Bulletin Se-12**

Other:

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Title: **ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE**

Section 9 Critical Characteristics				
Critical Characteristics Verification Document: Vendor Specifications, HNF-SD-SNF-SEL-002, Rev. 6a	Acceptance Criteria/Tolerances	Acceptance Method	ID	Function
1. Item Identification Critical Characteristics (necessary for reasonable assurance that the Item delivered is the Item specified)				
Component Number-Procurement and/or Model Number	LPS-N4-K-T-25-3000 PSI, (Per Procurement Package W-441-P5, Rev. 2, Section G, Design Data Sheet)	1,IN	X	
Nameplate - Manufacturer	Ashcroft Instruments	1,IN	X	
Process Connection	1/4 Inch FNPT	1,IN	X	
Pressure Range	0-3000 psig	1,IN	X	
Enclosure	NEMA 4	1,IN	X	
2. Physical Critical Characteristics (necessary for reasonable assurance that the Item delivered is the Item specified)				
Material, Body	Stainless Steel (Note 4)	1, IN 1,T	X	
Material, Process Connection	Stainless Steel (Note 4)	1, IN 1,T	X	
3. Performance Critical Characteristics (necessary & sufficient for reasonable assurance that the Item will perform its intended safety function(s))				
Pressure Boundary Integrity	No Leakage at Test Pressure of 4400 psig (No Bubbles) Note 3	1,T		X
Setpoint/Repeatability	Nominal 2200 psig / +/- 1% of Range	1,T		X
Environmental	Note 1			
Seismic Condition B	Note 2	1,T		X
4. Notes and Legend:		Acceptance Method:		
<ol style="list-style-type: none"> The pressure switch and Teflon seals are not subject to degradation at ambient conditions of 40°F and 60% RH or 115°F and 22% RH and are suitable for Environmental Condition B application. Maintain pressure boundary before and after Seismic event. W-441-P5, Rev. 2, Appendix I, page I-2, provides a seismic testing plan for these components at a seismic spectra TBD. Equipment that has been shaker-table tested should not be installed in a plant (Ref. IEEE Standard 344-1984, Section 7). Consequently, the seismic test constitutes a destructive test. Pressure test at 110% of design pressure. Material verification acceptance method may be by either inspection or test. 		<ol style="list-style-type: none"> Special Test and Inspection 1,IN for Inspection 1,T for Test Commercial Grade Survey Source Verification Vendor/Item History 		

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SUPPLY BOTTLE PRESSURE

Section 10 Initial Reviews and Approvals

Approvals:

Designated Engineer

Design Authority:

QA Engineer:

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WORKSHEET 1 DETERMINATION OF FAILURE MECHANISMS/MODES

SECTION 1

Typical Failure Mechanisms	Definition	Applicable to Component under Evaluation
Fracture	Separation of a solid accompanied by little or no macroscopic plastic deformation.	Yes [X] No []; If Yes, indicate failure Mode. <u>Failure of Transmitter Body or the Process Connection</u>
Corrosion	The gradual deterioration of a material due to chemical or electrochemical reactions, such as oxidation, between the material and its environment.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Erosion	Destruction of materials by the abrasive action of moving fluids, usually accelerated by the presence of solid particles carried with the fluid.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Open Circuit	An electrical circuit that is unintentionally broken so that there is no complete path for current flow.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Short Circuit	An abnormal connection by which an electrical current is connected to ground, or to some conducting body, resulting in excessive current flow.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Blockage	Clogging of a filtering medium resulting in the inability to perform its purification function or blockage of flow.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Seizure	Binding of a normally moving item through excessive pressure, temperature, friction, jamming.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Unacceptable Vibration	Mechanical oscillations produced are beyond the defined permissible limits due to unbalancing, poor support, or rotation at critical speeds.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Loss of Properties	A loss of mechanical and physical properties of a material due to exposure to high temperatures, radiation exposure.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Excess Strain	Under the action of excessive external forces the material of the part has been deformed or distorted.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Mechanical Creep	From prolonged exposure to high temperature and stress, the object will show a slow change in its physical (shape and dimension) and mechanical characteristics.	Yes [] No [X]; If Yes, indicate failure Mode. _____
Ductile Fracture	Fracture characterized by tearing of metal accompanied by appreciable gross plastic deformation.	Yes [] No [X]; If Yes, indicate failure Mode. _____

SECTION 2 Additional Failure Modes Applicable to the Component Under Evaluation

Process Connection/Body Break

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Title: ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE

CHECKLIST 1

ACCEPTANCE METHOD 1

SPECIAL TEST/INSPECTION VERIFICATION

SECTION 1			
Item Description: Ashcroft Pressure Switch – Monitor for Low SCHe Supply Bottle Pressure		Equip #: SCHe-PSL-5*03, 5*22, 5*42, 5*62	
System #: 13		Procurement and/or Model #: LPS-N4-K-T-25-3000 PSI.	
Manufacturer (Address/Phone): Ashcroft Instrument Division		Supplier (Address/Phone):	
P.O. #			
SECTION 2 CRITICAL CHARACTERISTICS TO BE VERIFIED BY METHOD 1.			
Insp	Test	Post-Test	
☒	☐	☐	1. Component Number-Procurement and/or Model Number
☒	☐	☐	2. Nameplate - Manufacturer
☒	☐	☐	3. Process Connection
☒	☐	☐	4. Pressure Range
☒	☐	☐	5. Enclosure
☒	☒	☐	6. Material, Body (Verification may be by either inspection or test)
☒	☒	☐	7. Material, Process Connection (Verification may be by either inspection or test)
☐	☒	☐	8. Pressure Boundary Integrity
☐	☒	☐	9. Setpoint/Repeatability
☐	☒	☐	10. Seismic Condition B
SECTION 3 BY INSPECTION			
* See Attachment G of Desk Instruction Sampling Size			
Characteristic: Component Number-Procurement and/or Model Number			
Sample Size*: All Items			
Acceptance Criteria: LPS-N4-K-T-25-3000 PSI, (Per Procurement Package W-441-P5, Rev. 2, Section G, Design Data Sheet)			
Receipt Inspection Plan / Report #: _____			
References (see Section 7): Ashcroft Instrument Division, L Series Switches, Bulletin SE-12			

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Title: **ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE**

Characteristic: **Nameplate - Manufacturer**

Sample Size*: **All Items**

Acceptance Criteria: **Ashcroft Instruments**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

Characteristic: **Process Connection**

Sample Size*: **All Items**

Acceptance Criteria: **1/4 Inch FNPT**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

Characteristic: **Pressure Range**

Sample Size*: **All Items**

Acceptance Criteria: **0-3000 psig**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

Characteristic: **Enclosure**

Sample Size*: **All Items**

Acceptance Criteria: **NEMA 4**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

Characteristic: **Material, Body**

Sample Size*: **Normal Sampling Size**

Acceptance Criteria: **Stainless Steel**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

Characteristic: **Material, Process Connection**

Sample Size*: **Normal Sampling Size**

Acceptance Criteria: **Stainless Steel**

Receipt Inspection Plan / Report #: _____

References (see Section 7): _____

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Title: ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE

SECTION 4 BY SPECIAL TEST

* See Attachment G of Desk Instruction Sampling Size

Test To Be Performed by:

☐ Purchaser

☐ Supplier/Manufacturer**

☐ Other

Number of Items to be Tested:

Test/Inspection Location:

Characteristic for Test: **Pressure Boundary Integrity**

Acceptance Criteria: **No Leakage at Test Pressure of 4400 psig (No Bubbles)**

Sample Size*: **Normal Sampling Size**

Actual Test Value:

Test Plan and Report #: _____ References (see Section 7): _____

Characteristic for Test: **Setpoint/Repeatability**

Acceptance Criteria: **Nominal 2200 psig / +/- 1% of Range**

Sample Size*: **Normal Sampling Size**

Actual Test Value:

Test Plan and Report #: _____ References (see Section 7): _____

Characteristic for Test: **Seismic Condition B**

Acceptance Criteria: **Maintain Pressure Boundary Before And After Seismic Event. W-441-P5, Rev. 2, Appendix I, page I-2, provides a seismic testing plan for these components at a seismic spectra TBD.**

Sample Size*: **W-441-P5, Rev. 2, Appendix I, page I-2, provides the seismic testing plan for these components. The seismic testing is conducted for one complete panel with the components assembled on the panel and tested as a complete assembly. The test seismically qualifies the entire assembly, including mountings, piping, and components. The number of components tested is dictated by the panel assembly design.**

Actual Test Value:

Test Plan and Report #: _____ References (see Section 7): _____

**If Supplier/Manufacturer or Other, Refer to CGI Checklist-2 for Support Information

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Title: <u>ASHCROFT PRESSURE SWITCH - MONITOR FOR LOW SCHe</u>	
<u>SUPPLY BOTTLE PRESSURE</u>	

Section 5 Test / Inspection Summary (Acceptance Method 1)											
1. SUMMARY OF VERIFIED CRITICAL CHARACTERISTICS , THEIR VERIFICATION METHODS, AND RESULTS											
ITEM DESCRIPTION:											
Critical Characteristics						Verification Results					
Critical Characteristics	Acceptance Criteria/Tolerances	ID	Function	Method T/IN	Procedure or RR#	Check-list ID	Number Tested	Number Failed	Verifying Organization	Printed Name Signature	Date
Component Number-Procurement and/or Model Number	LPS-N4-K-T-25-3000 PSI, (Per Procurement Package W-441-P5, Rev. 2, Section G, Design Data Sheet)	X									
Nameplate - Manufacturer	Ashcroft Instruments	X									
Process Connection	1/4 Inch FNPT	X									
Instrument Range	0-3000 psig	X									
Enclosure	NEMA 4	X									
Material, Body	Stainless Steel	X									
Material, Process Connection	Stainless Steel	X									
Pressure Boundary Integrity	No Leakage at Test Pressure of 4400 psig (No Bubbles)		X								
Set Point / Repeatability	Nominal 2200 psig / +/- 1% of Range		X								
Seismic Condition B	Maintain Pressure Boundary Before and After Seismic Event.		X								

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Title: <u>ASHCROFT PRESSURE SWITCH - MONITOR FOR LOW SCHe</u>		Page 11 of 12
<u>SUPPLY BOTTLE PRESSURE</u>		

2. DISPOSITION OF UNVERIFIED OR FAILED CRITICAL CHARACTERISTICS	
Critical Characteristic	Disposition
3. SIGNATURE INDICATES ALL CRITICAL CHARACTERISTICS VERIFIED SATISFACTORY OR ACCEPTABLY DISPOSITIONED AND COMMERCIAL GRADE DEDICATION IS SATISFACTORY AND COMPLETE.	
Testing Agency Approval: _____ Date _____ Testing Agency QA Engineer: _____ Date _____	BUYER VERIFICATION Design Authority: _____ Date _____ QA Engineer: _____ Date _____

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Title: ASHCROFT PRESSURE SWITCH – MONITOR FOR LOW SCHe
SUPPLY BOTTLE PRESSURE

Section 6 Contacts/Phone Numbers

Name	Phone
Design Authority	()
QA	()
QC	()
Cog - Engineer	()
CGI Engineer	()
Procurement Engineer	()
Other	()

Section 7 Supporting Documentation for this Checklist

Initial Procurement Documents	For Critical Characteristics
☐ Drawings:	
☐ Manuals (specify type & number):	
☐ Design Calculations	
☐ Installation Instructions	
☐ Operation Instructions	
☐ Calibration Instructions	
☐ Manufacturer's Recommended Spare Parts List	
☐ Other:	
Procurement Documents	
☐ Certificate of Conformance/Compliance	
☐ Seismic Qualification Certificate	
☐ Environmental Qualification Certificate	
☐ Test Report (s):	
☐ Inspection Report (s):	
☐ CMTRs for ASME Pressure Retaining Materials	
☐ Valve Seat Leakage Report	
☐ Weld Records	
☐ Material Traceability Record	
☐ Other:	