

Use as original, (JCB 9/12/00) (15)

662857

<p style="font-size: 2em; margin: 0;">S</p> <p style="font-size: 1.2em; margin: 0;"><b>ENGINEERING CHANGE NOTICE</b></p>	<p>1. ECN <b>662865</b></p> <p>Proj. ECN</p>
<p>Page 1 of <u>2</u></p>	

<p>2. ECN Category (mark one)</p> <p>Supplemental <input type="checkbox"/></p> <p>Direct Revision <input checked="" type="checkbox"/> [X]</p> <p>Change ECN <input type="checkbox"/></p> <p>Temporary <input type="checkbox"/></p> <p>Standby <input type="checkbox"/></p> <p>Supersedure <input type="checkbox"/></p> <p>Cancel/Void <input type="checkbox"/></p>	<p>3. Originator's Name, Organization, MSIN, and Telephone No.</p> <p>A. Artzer, CVDF, X3-78, 372-2801</p>	<p>4. USQ Required?</p> <p>[X] Yes <input type="checkbox"/> No</p>	<p>5. Date</p> <p>9/8/00</p>
	<p>6. Project Title/No./Work Order No.</p> <p style="text-align: center;">SNF/W-441, Spent Nuclear Fuel Cold Vacuum Drying</p>	<p>7. Bldg./Sys./Fac. No.</p> <p style="text-align: center;">CVDF 142K</p>	<p>8. Approval Designator</p> <p style="text-align: center;">S<sup>N</sup>Q</p>
	<p>9. Document Numbers Changed by this ECN (includes sheet no. and rev.)</p> <p style="text-align: center;">SNF-3929, Rev. 6</p>	<p>10. Related ECN No(s).</p> <p style="text-align: center;">N/A</p>	<p>11. Related PO No.</p> <p style="text-align: center;">N/A</p>

<p>12a. Modification Work</p> <p><input type="checkbox"/> Yes (fill out Blk. 12b)</p> <p><input checked="" type="checkbox"/> No (NA Blks. 12b, 12c, 12d)</p>	<p>12b. Work Package No.</p> <p style="text-align: center;">N/A</p>	<p>12c. Modification Work Complete</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">Design Authority/Cog. Engineer Signature &amp; Date</p>	<p>12d. Restored to Original Condition (Temp. or Standby ECN only)</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">Design Authority/Cog. Engineer Signature &amp; Date</p>
--	---	--	--

<p>13a. Description of Change</p> <p style="font-size: 1.5em; margin-top: 20px;">SCHe</p> <p style="margin-top: 20px;">Per OTE NCR #5354 Disposition: Revised Regulator Model No. from 412-2800-01-XA to 412-2800-0XA, Pigtail Manufacturer/Model No. from 529-0058-680 (316 Stainless Steel Inner Core, 3850 psig, 2 foot length) to 529-0058-CGA-680 (PTFE Inner Core, 4500 psig, 3 foot length), and Concoa Relief Valve Setpoint from <math>\pm 5</math> psig to <math>50 \pm 5</math> psig. Revised pressure regulator test pressure range from 100 to 3000 psig to a minimum of 3000, not to exceed 3600 psig.</p>	<p>13b. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="text-align: right; font-size: 1.5em;">SC</p>
--	--

<p>14a. Justification (mark one)</p> <p>Criteria Change <input type="checkbox"/></p> <p>Design Improvement <input checked="" type="checkbox"/> [X]</p> <p>Environmental <input type="checkbox"/></p> <p>Facility Deactivation <input type="checkbox"/></p> <p>As-Found <input type="checkbox"/></p> <p>Facilitate Const <input type="checkbox"/></p> <p>Const. Error/Omission <input type="checkbox"/></p> <p>Design Error/Omission <input type="checkbox"/></p>	<p>14b. Justification Details</p> <p>Change in CGI documentation is necessary to be consistent with design change shown on ECN 659484 &amp; ECN 662824. can 9/14/00</p> <p>The design verification method for SC/SS 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.</p>
--	---

<p>15. Distribution (include name, MSIN, and no. of copies)</p> <p>See distribution sheet.</p>	<p>RELEASE STAMP</p> <div style="border: 2px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="font-size: 1.5em; margin: 0;">SEP 14 2000</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>DATE:</p> <p>STA: #19</p> </div> <div style="text-align: center;"> <p>HANFORD RELEASE</p> </div> <div> <p>ID: (15)</p> </div> </div> </div>
--	--

## 662857

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.

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.

[illegible]

[illegible]

5

SNF-3929  
Revision 7

# Concoa SCHe pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)

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

# Concoa SCHe pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)

Project No: W-441

Division: SNF

C. R. Miska  
Fluor Hanford, Inc.

Date Published  
September 2000

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

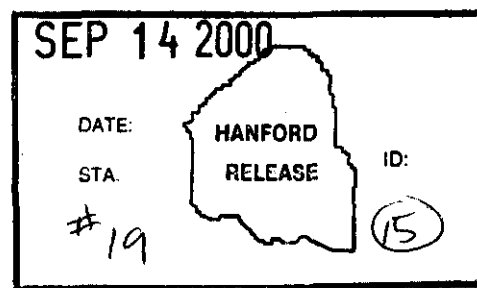
Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**Fluor Hanford**

P.O. Box 1000  
Richland, Washington

Janis Braden  
Release Approval

9/14/00  
Date



Release Stamp

**TRADEMARK DISCLAIMER**

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy.

Printed in the United States of America

Total Pages: 15

SNF-3929, Rev. 7



Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <b>NA</b>	CGI No. <b>CGI-SNF-D-13-P5-032</b>	Page 1 of 11
Title: <b>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</b>		

<b>Section 1 Part Information</b>			
Item No.: <b>N/A</b>		Manufacturer: <b>N/A</b>	
Mfg. Part/Model No.: <b>N/A</b>		Supplier: <b>N/A</b>	
Supplier's P/N: <b>N/A</b>			
Part Description: <b>N/A</b>			
End Use Description: <b>N/A</b>			
<b>Section 2a Component Information</b>			
Equipment No.: <b>SCHe-PCV-5*05, 5*23, 5*43, 5*63; PI-5*02, 5*21, 5*41, 5*61</b>	Specification No.: <b>SNF-5304 (W-441-P5)</b>	Manufacturer: <b>Concoa, Reotemp</b>	Past P.O. No.: <b>N/A</b>
Procurement and/or Model No.: <b>Concoa: 412-2800-OXA; Reotemp: PR-25-S-1-A-4-P34-D</b>	Equipment Supplier (if different from manufacturer): <b>TBD</b>	Equip. Supplier's Part No.: <b>N/A</b>	
Component Description: <b>Dual Stage Pressure Regulator to Maintain Steady Delivery Pressure Over Wide Range of He Tank Pressure. Pressure Gauges give Indication of Purge Line Pressure.</b>			
<b>Section 2b Commercial Availability of the Item</b>			
1. Is the Item available from a catalogue from a qualified NQA1 supplier or ISO 9000 supplier (coordinate with project CGI interface Engineer or BTR)? <input type="checkbox"/> YES (go to #2 below) <input checked="" type="checkbox"/> NO (go to procedure step 6.3.2, proceed to dedicate Item) If not available from a qualified NQA1 supplier, is it available from an ISO 9000 supplier? (coordinate w/ project CGI Interface Engineer or BTR): <input type="checkbox"/> YES (go to #2 below, procedure step 6.3.2, dedicate Item) <input checked="" type="checkbox"/> NO (procedure step 6.3.2, dedicate Item)			
2. List of Candidate qualified suppliers or ISO 9000 suppliers: <b>N/A</b>			
3. Recommended Procurement Strategy (coordinate with project CGI interface Engineer or BTR): <b>N/A</b>			
<b>Section 2c CGI Determination</b>			
CGI Determination Questions:			
#1: Is the Item subject to design or specification requirements that are unique to nuclear facilities or activities? <input type="checkbox"/> YES (the Item is not commercial grade) <input checked="" type="checkbox"/> NO (continue)			
#2: Is the Item used in applications other than nuclear facilities or activities? <input type="checkbox"/> NO (the item is not commercial grade) <input checked="" type="checkbox"/> YES (continue)			
#3: Is the Item ordered from manufacturer/supplier on the basis of specifications set forth in the manufacturer's catalog? <input type="checkbox"/> NO (the item is not commercial grade) <input checked="" type="checkbox"/> YES (continue)			
<input checked="" type="checkbox"/> All three criteria have been satisfied. The Item meets the definition of commercial grade.			
<b>Section 2d Reason for Dedication</b>			
The above Commercial Grade (CG) described item is being Dedicated for use in the application cited for the following reason(s):			
<input checked="" type="checkbox"/>	Item is being purchased from a non-ESL manufacturer supplier as CG to be used in a Safety Class application.		
<input type="checkbox"/>	Item is being purchased from a non-ESL manufacturer supplier as CG to be used in a Safety Significant application.		
<input type="checkbox"/>	Item was purchased from a non-ESL manufacturer supplier as CG to be used in a Safety Class application.		
<input type="checkbox"/>	Item was purchased from a non-ESL manufacturer supplier as CG to be used in a Safety Significant application.		
<input type="checkbox"/>	Other ("like-for-like", similar, substitution, replacement evaluation)		



Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <b>NA</b>	CGI No. <b>CGI-SNF-D-13-P5-032</b>	Page 2 of 11
Title: <b>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</b>		

<b>Section 3 Failure Effects Evaluation</b>			
A. Part/Component Safety Function:			
1. <b>Pressure boundary.</b>			
2. <b>Prevent Thermal Runaway and H2 explosion .</b>			
3. <b>Maintain critical function before and after seismic event.</b>			
B. Part/Component Functional Mode:			
Safety Function #1: <input type="checkbox"/> Active <input checked="" type="checkbox"/> Passive		Active - Mechanical or Electrical change of state is required to occur for the component to perform its safety function	
Safety Function #2: <input type="checkbox"/> Active <input checked="" type="checkbox"/> Passive		Passive - Change of state is not required for the component to perform its safety function	
Safety Function #3: <input type="checkbox"/> Active <input checked="" type="checkbox"/> Passive			
C. Host Component Safety Function (if applicable): <b>N/A</b>			
1.			
D. Failure Mode(s) and the effects on component or system safety function (see Worksheet 1):			
1. <b>Valve Body/Process Connection break - loss of boundary, air in-leakage.</b>			
2. <b>Diaphragm/Body Failure - loss of regulating function.</b>			
<b>Section 4 Environmental &amp; Natural Phenomena Hazard Design</b>			
Environmental Qualification Required:		If yes: Environmental Qualification Requirements	
Yes <input type="checkbox"/>		Limiting Environmental Conditions:	
No <input checked="" type="checkbox"/> Environmental Condition B		Required Safety Functions:	
		Qualification Period:	
Natural Phenomena Hazard (NPH) Design Required:		If yes: NPH Design Requirements	
Yes <input checked="" type="checkbox"/>		Performance Category: <b>PC-3</b>	
No <input type="checkbox"/>		NPH Design Req'ts.: <b>Seismic Condition A</b>	
<b>HNF-PRO-97</b>		Required Safety Functions: <b>Maintain Pressure Boundary, Prevent Thermal Runaway and H2 Explosion, Maintain Critical Function Before and After Seismic Event</b>	
<b>SNF-5304</b>			
<b>Section 5 Component Functional Classification</b>			
<b>X</b>	Safety Class (SC)		General Service (GS)
			Safety Significant (SS)
If part/component classification is different from host component/system, document basis. <b>N/A</b>			
<b>Sections 6 and 7 (Reserved)</b>			
<b>Section 8 References (for Functional Classification)</b>			
National Codes/Standards: <b>ASME B31.3</b>			
Safety Analysis Report (SAR): <b>HNF- 3553, Annex B</b>			
Drawings: <b>H-1-82165, H-1-82367, HNF-SD-SNF-SEL-002</b>			
Vendor Manual/Manufacturer/Supplier Information: <b>Catalog Cut Sheets: Concoa 412 Series Regulator, Reotemp Pressure Gauges</b>			

Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <u>NA</u>	CGI No. <u>CGI-SNF-D-13-P5-032</u>	Page 3 of 11
Title: <u>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</u>		

Section 9 Critical Characteristics				
Critical Characteristics	Acceptance Criteria/Tolerances	Acc. Method	ID	Function
<b>Concoa Pressure Regulator:</b>				
1. Item Identification Critical Characteristics (necessary for reasonable assurance that the Item delivered is the Item specified)				
Nameplate - Manufacturer	Concoa	1, IN	X	
Regulator Component Number-Procurement and/or Model Number	412-2800-0XA , (Per SNF-5304, Design Data Sheet) (Note 5)	1, IN	X	
Relief Valve Manufacturer/Model No. (furnished with regulator)	Concoa / 534-2922-50, (ditto above)	1, IN	X	
Pigtail Manufacturer/Model No. / Connection Size / Length (furnished with regulator)	Concoa / 529-0058-CGA-680 / 1/4" MNPT / 3', (ditto above)	1, IN	X	
Panel Mount Kit Manufacturer/Model No. (furnished with regulator)	Concoa / 550-0002, (ditto above)	1, IN	X	
Helium Leak Certification (supplied with regulator)	Documentation of leakage < 1 X 10 <sup>-8</sup> scc/sec, (ditto above)	1, IN	X	
2. Physical Critical Characteristics (for reasonable assurance that the Item delivered is the Item specified)				
Regulator Body Material	Brass (Note 4)	1, IN, 1, T	X	X
Regulator Outlet Connection	1/4" NPT Male	1, IN	X	
3. Performance Critical Characteristics (for reasonable assurance that the Item will perform its intended safety function(s))				
Setpoint	Maintain delivery pressure of 25 +/- 2.5 psig at a pressure no less than 3000 psig but not more than 3600 psig for 96 hours.	1, T		X
Concoa Relief Valve Setpoint (adjust to 50 psig as necessary)	50 ± 5 psig	1, T		X
<b>Reotemp Pressure Gauges:</b>				
1. Item Identification Critical Characteristics (necessary for reasonable assurance that the Item delivered is the Item specified)				
Nameplate - Manufacturer	Reotemp	1, IN	X	
Component Number-Procurement and/or Model Number	PR-25-S-1-A-4-P34-D	1, IN	X	
2. Physical Critical Characteristics (for reasonable assurance that the Item delivered is the Item specified)				
Dial Size	2.5" Diameter Nominal	1, IN	X	
Outlet Connection	1/4" NPT	1, IN	X	
Mounting	Bottom Mounting	1, IN	X	
Tube & Socket Material	316 SS	1, IN, 1, T	X	X
Pressure Range	0-5000 psig	1, IN	X	
3. Performance Critical Characteristics (for reasonable assurance that the Item will perform its intended safety function(s))				
Accuracy	Certification of Calibration shows accuracy at least 1.6% of Full Scale per the documentation.	1, T		X
<b>All Items:</b>				
3. Performance Critical Characteristics (for reasonable assurance that the Item will perform its intended safety function(s))				
Pressure Boundary	Pressure Test at 4400 psig for >10 minutes; Reduce pressure to 4000 psig, perform snoop test (No Leakage-No Bubbles) Note 3	1, T		X
Environmental	Note 1			
Seismic Condition A	Note 2	1, T		X

## Commercial Grade Item Upgrade Dedication Form

SNF-3929, Rev. 7

ECN No. NACGI No. CGI-SNF-D-13-P5-032

Page 4 of 11

Title: Concoa SCHe Pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)

## 4. Notes and Legend:

1. The Concoa PCVs have stainless diaphragms and the Reotemp has stainless steel whenever contact with fluids. These materials are not subject to degradation at 40°F and 60% RH or 115°F and 22% RH and are suitable for condition B Application.
2. Maintain critical function before and after seismic event. SNF-5304, Appendix I, page I-2, provides a seismic testing plan for these components at a seismic spectra SNF-4895. 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.
3. Pressure test at 110% component internal pressure of 4000 psig.
4. Material verification acceptance method may be by either inspection or test.
5. Model No: 412-2800-0XA is an assembly of catalog nos. i.e. no gauges, with pigtail, 50 psi relief valve, and factory relief valve plugged.

Rev. 4: All pages: added Concoa Regulator, added new forms and revised note 1 and added note 5 (Pg. 3 only). Deleted Matheson Regulator.

Rev. 5: Added Reotemp Pressure Gauges.

Rev. 6: Updated reference documentation.

Rev. 7: Per OTE NCR #5354 Disposition: Revised Regulator Model No. from 412-2800-01-XA to 412-2800-0XA, Pigtail Manufacturer/Model No. from 529-0058-680 (316 Stainless Steel Inner Core, 3850 psig, 2 foot length) to 529-0058-CGA-680 (PTFE Inner Core, 4500 psig, 3 foot length), and Concoa Relief Valve Setpoint from  $\pm 5$  psig to  $50 \pm 5$  psig. Revised pressure regulator test pressure range from 100 to 3000 psig to a minimum of 3000, not to exceed 3600 psig.

## Acceptance Method:

1. Special Test and Inspection
  - 1, IN for Inspection
  - 1, T for Test
  - 1, A for Analysis
2. Commercial Grade Survey
3. Source Verification
4. Vendor/Item History

## Section 10 Initial Review and Approval

Approvals:

Designated Engineer:

Design Authority:

QA Engineer:

09/12/00

## Commercial Grade Item Upgrade Dedication Form

SNF-3929, Rev. 7

ECN No. NACGI No. CGI-SNF-D-13-P5-032

Page 5 of 11

Title: Concoa SCHe Pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)

## Worksheet 1 - Determination of Failure Mechanisms

Section 1			
Typical Failure Mechanisms	Definition	X = Applicable to Component under Evaluation X? Indicate Failure Mode	
Fracture	Separation of a solid accompanied by little or no macroscopic plastic deformation.		
Corrosion	The gradual deterioration of a material due to chemical or electrochemical reactions, such as oxidation, between the material and its environment.		
Erosion	Destruction of materials by the abrasive action of moving fluids, usually accelerated by the presence of solid particles carried with the fluid.		
Open Circuit	An electrical circuit that is unintentionally broken so that there is no complete path for current flow.		
Short Circuit	An abnormal connection by which an electrical current is connected to ground, or to some conducting body, resulting in excessive current flow.		
Blockage	Clogging of a filtering medium resulting in the inability to perform its purification function or blockage of flow.		
Seizure	Binding of a normally moving item through excessive pressure, temperature, friction, jamming.		
Unacceptable Vibration	Mechanical oscillations produced are beyond the defined permissible limits due to unbalancing, poor support, or rotation at critical speeds.		
Loss of Properties	A loss of mechanical and physical properties of a material due to exposure to high temperatures, radiation exposure.		
Excess Strain	Under the action of excessive external forces the material of the part has been deformed or distorted.		
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.		
Ductile Fracture	Fracture characterized by tearing of metal accompanied by appreciable gross plastic deformation.		
Section 2 Additional Failure Modes Applicable to the Component Under Evaluation			
1. Regulator, Hose or Gauge Body Break			
2. Diaphragm Break/Failure			

Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <u>NA</u>	CGI No. <u>CGI-SNF-D-13-P5-032</u>	Page 6 of 11
Title: <b>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</b>		

**Checklist 1 - Acceptance Method 1 - Special Test/Inspection Verification**

SECTION 1	
Item Description: <b>SCHe Tank Pressure Regulator and associated equipment</b> System #: 13	Equip #: <b>SCHe-PCV-5*04, 5*23, 5*43, 5*63; PI-5*02, 5*21, 5*41, 5*61</b> Procurement and/or Model #: <b>Concoa: 412-2800-0XA; Reotemp: PR-25-S-1-A-4-P34-D</b>
Manufacturer (Address/Phone):  <b>Concoa</b> <b>1502 Harpers Road</b> <b>Virginia Beach, VA</b> <b>23454</b> <b>800-225-0473</b> <b>Fx: 757-422-3125</b> <b><u>e-mail@concoa.com</u></b>	Supplier (Address/Phone):  <b>Reotemp</b> <b>11568 Sorrento Valley Road,</b> <b>Suite 10</b> <b>San Diego, CA 92121 USA</b> <b>Toll-Free: (800) 648-7737</b> <b>Phone: (619) 481-7737</b> <b>Fax: (619) 481-7415</b> <b>Email: <u>reotemp@reotemp.com</u></b>

SECTION 2 CRITICAL CHARACTERISTICS TO BE VERIFIED BY METHOD 1			
Insap	Test	Post-Test	
X			1. Nameplate - Manufacturer
X			2. Component Number-Procurement and/or Model Number
X			3. Body Material (Verification may be by either inspection or test)
X			4. Outlet Connection
X			5. Relief Valve Manufacturer/Model No.
X			6. Pigtail Manufacturer/Model No. / Connection Size / Length
X			7. Panel Mount Kit Manufacturer/Model No.
X			8. Helium Leak Certification
X			9. Dial Size
X			10. Mounting
X			11. Pressure Range
	X		12. Pressure Boundary
	X		13. Setpoint
	X		14. Relief Valve Setpoint
	X		15. Seismic Condition A
	X		16. Accuracy

SECTION 3 BY INSPECTION * See Attachment H, Table H-1 of Desk Instruction for Sampling Size; References (See Section 7)	
<b>Concoa Pressure Regulator:</b>	
Characteristic: <b>Manufacturer</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Concoa</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Component Number-Procurement and/or Model Number</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>412-2800-0XA (Per SNF-5304, Design Data Sheet)</b>	
Receipt Inspection Plan / Report #:	
Characteristic: <b>Body Material</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Brass</b>	Receipt Inspection Plan / Report #:

<b>Commercial Grade Item Upgrade Dedication Form</b>		SNF-3929, Rev. 7
ECN No. <b>NA</b>	CGI No. <b>CGI-SNF-D-13-P5-032</b>	Page 7 of 11
Title: <b>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</b>		

Characteristic: <b>Outlet Connection</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>1/4" NPT Male</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Relief Valve Manufacturer/Model No (supplied with regulator)</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Concoa / 534-2922-50</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Pigtail Manufacturer/Model No. / Connection Size / Length (supplied with regulator)</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Concoa / 529-0058-CGA-680 / 1/4" MNPT / 3'</b>	
Receipt Inspection Plan / Report #:	
Characteristic: <b>Panel Mount Kit Manufacturer/Model No. (supplied with regulator)</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Concoa / 550-0002</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Hellum Leak Certification (supplied with regulator)</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>&lt; 1 X 10<sup>-6</sup> scc/sec</b>	Receipt Inspection Plan / Report #:
<b>Reotemp Pressure Gauge:</b>	
Characteristic: <b>Manufacturer</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Reotemp</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Component Number-Procurement and/or Model Number</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>PR-25-S-1-A-4-P34-D</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Dial size</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>2.5" Diameter Nominal</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Outlet Connection</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>1/4" NPT</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Mounting</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Bottom Mounting</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Tube &amp; Socket Material</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>316 SS</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Pressure Range</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>0-5000 psig</b>	Receipt Inspection Plan / Report #:
Characteristic: <b>Accuracy</b>	Sample Size*: <b>100%</b>
Acceptance Criteria: <b>Certificate of Calibration by manufacturer show accuracy to be at least 1.6% of full scale</b>	
Receipt Inspection Plan / Report #:	

Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <u>NA</u>	CGI No. <u>CGI-SNF-D-13-P5-032</u>	Page 8 of 11
Title: <b>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</b>		

<b>Section 4 By Special Test</b> * See Attachment H, Table H-1 of Desk Instruction for Sampling Size References (See Section 7)	
Characteristic for Test: <b>Pressure Boundary</b> Acceptance Criteria: <b>Pressure Test at 4400 psig for &gt;10 minutes; Reduce Pressure to 4000, perform snoop test (No Leakage-No Bubbles)</b> Actual Test Value: _____	Samp Size*: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Reduced <input type="checkbox"/> Tightened Test Plan and Report #: _____
Characteristic for Test: <b>Setpoint</b> Acceptance Criteria: <b>Maintain delivery pressure of 25 +/- 2.5 psig at a pressure no less than 3000 psig but not more than 3600 psig for 96 hours.</b> Actual Test Value: _____	Samp Size*: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Reduced <input type="checkbox"/> Tightened Test Plan and Report #: _____
Characteristic for Test: <b>Relief Valve Setpoint</b> Acceptance Criteria: <b>50 ± 5 psig</b> Actual Test Value: _____	Samp Size*: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Reduced <input type="checkbox"/> Tightened Test Plan and Report #: _____
Characteristic for Test: <b>Seismic Condition A</b> Acceptance Criteria: <b>Maintain critical function before and after seismic event</b> Sample Size*: SNF-5304, 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: _____	Samp Size*: <input type="checkbox"/> Normal <input type="checkbox"/> Reduced <input type="checkbox"/> Tightened Test Plan and Report #: _____

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

# Commercial Grade Item Upgrade Dedication Form

SNF-3929, Rev. 7

ECN No. NA CGI No. CGI-SNF-D-13-P5-032

Page 9 of 11

Title: Concoa SCHe Pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)

## Section 5: Test / Inspection Summary (Acceptance Method 1)

### 1. Summary of Verified Critical Characteristics, Their Verification Methods, and Results

ITEM DESCRIPTION: Regulator

Critical Characteristics				Verification Results							
Critical Characteristics	Acceptance Criteria/Tolerances	ID	Function	Method T/IN	Procedure or R/R#	Check- list ID	Number Tested	Number Failed	Verifying Organization	Printed Name Signature	Date
Nameplate - Manufacturer	Concoa	X		1, IN							
Model Number	412-2800-0XA, (Per SNF-5304, Design Data Sheet)	X		1, IN							
Body Material	Brass	X		1, IN							
Outlet Connection	1/4" NPT Male	X		1, IN							
Relief Valve Mfr / Model No.	Concoa / 534-2922-50, (Ditto above)	X		1, IN							
Pigtail Mfr/Model No. / Connection Size / Length	Concoa / 529-0058-CGA-680 / 1/4" MNPT / 3', (ditto above)	X		1, IN							
Panel Mount Kit Model No.	Concoa / 550-0002, (ditto above)	X		1, IN							
Pressure Boundary	Pressure Test at 4400 psig for >10 min; Reduce to 4000, perform snoop test (No Leakage-No Bubbles)		X	1, T							
Setpoint	Maintain delivery pressure of 25 psig +/- 2.5 psig at a pressure no less than 3000 psig but not more than 3600 psig for 96 hours.		X	1, T							
Concoa Relief Valve Setpoint (adjust to 50 psig as necessary)	50 ± 5 psig		X	1, T							
Seismic Condition A	Maintain Critical Function Before and After Seismic Event.		X	1, T							

### 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: _____	Design Authority: _____	BUYER VERIFICATION
Testing Agency QA Engineer: _____	QA Engineer: _____	
Date: _____	Date: _____	Date: _____



Commercial Grade Item Upgrade Dedication Form		SNF-3929, Rev. 7
ECN No. <u>NA</u>	CGI No. <u>CGI-SNF-D-13-P5-032</u>	Page 10 of 11
Title: <u>Concoa SCHe Pressure Regulators &amp; Reotemp Press. Gauge (SCHe Tank Outlet)</u>		

Section 5 Test / Inspection Summary (Acceptance Method 1)											
1. Summary of Verified Critical Characteristics, Their Verification Methods, and Results											
ITEM DESCRIPTION: Pressure Gauge											
Critical Characteristics					Verification Results						
Critical Characteristics	Acceptance Criteria/Tolerances	D	Function	Method T/I/N	Procedure or R/R#	Check- list D	Number Tested	Number Failed	Verifying Organization	Printed Name Signature	Date
Nameplate - Manufacturer	Reotemp	X		1, IN							
Component Number- Procurement and/or Model Number	PR-25-S-1-A-4-P34-D	X		1, IN							
Dial Size	2.5" Diameter Nominal	X		1, IN							
Outlet Connection	1/4" NPT	X		1, IN							
Mounting	Bottom Mounting	X		1, IN							
Tube & Socket Material	316 SS	X		1, IN							
Pressure Range	0-5000 PSIG	X		1, IN							
Accuracy	Certificate of Calibration shows accuracy at least 1.6% of Full Scale per the documentation		X	1, IN							
Pressure Boundary	Pressure Test at 4400 psig (No Leakage-No Bubbles)		X	1, T							
Seismic Condition A	Maintain Critical Function Before and After Seismic Event.		X	1, T							
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: _____					Design Authority: _____			Date _____			
Testing Agency QA Engineer: _____					QA Engineer: _____			Date _____			
BUYER VERIFICATION											

# Commercial Grade Item Upgrade Dedication Form

SNF-3929, Rev. 7

ECN No. **NA**

CGI No. **CGI-SNF-D-13-P5-032**

Page 11 of 11

Title: **Concoa SCHe Pressure Regulators & Reotemp Press. Gauge (SCHe Tank Outlet)**

## Section 6 Contacts / Phone Numbers

Title	Name	Phone
Design Authority		
QA		
QC		
Cog - Engineer		
CGI Engineer	Larry Price	372-8770
Procurement Engineer		
Other		

## Section 7 Supporting Documentation for This Checklist

Initial Procurement Documents		For Critical Characteristics
<input type="checkbox"/>	Drawings:	
<input type="checkbox"/>	Manuals (specify type & number):	
<input type="checkbox"/>	Design Calculations	
<input type="checkbox"/>	Installation Instructions	
<input type="checkbox"/>	Operation Instructions	
<input type="checkbox"/>	Calibration Instructions	
<input type="checkbox"/>	Manufacturer's Recommended Spare Parts List	
<input checked="" type="checkbox"/>	Other: : Catalog Cut Sheets: Concoa 412 Series Regulator, Reotemp Pressure Gauges	All
Procurement Documents		
<input type="checkbox"/>	Certificate of Conformance/Compliance	
<input type="checkbox"/>	Seismic Qualification Certificate	
<input type="checkbox"/>	Environmental Qualification Certificate	
<input type="checkbox"/>	Test Report (s):	
<input type="checkbox"/>	Inspection Report (s):	
<input type="checkbox"/>	CMTRs for ASME Pressure Retaining Materials	
<input type="checkbox"/>	Valve Seat Leakage Report	
<input type="checkbox"/>	Weld Records	
<input type="checkbox"/>	Material Traceability Record	
<input type="checkbox"/>	Other:	