

**Westinghouse Electric Co., LLC  
Columbia S.C.**

**Inspection report  
30B cylinder containing Uranium Hexafluoride  
MFR SERIAL NR 20 830-015, STOOMWEZEN REC. NR 4009024,  
URENCO NR 1629/000387**

**Issued by  
Carolina Materials Testing Company, Inc.  
Irmo S.C.**

**Carolina Materials Testing Company, Inc.**  
**Soils, Foundations, Materials**  
**and Non-Destructive Testing**

Telephone: 803-407-3336

Fax: 803-749-1718

CYLINDER #

MFR SERIAL NR 20 830-015

DATE 5/15/2012

STOOMWEZEN REC. NR 4009024

URENCO NR 1629/000387

MODEL 30 B, YEAR BUILT 2000 (No month stamp on plate as required by ANSI 14.1)

LAST RECERTIFICATION: 9/2010

**Reason for inspection:**

Cylinder received without U stamp of compliance to Boiler Pressure Vessel Code.

**Inspection:**

This inspection was performed to determine if this cylinder was built and maintained to standards set forth in ANSI N14.1 to the extent that the cylinder can be inspected while it is full. This inspection was limited to external visual inspection at a rate not less than 75% and 31 ultrasonic thickness tests with readings and location shown on figure 1.

Thickness measurement criteria are set by ANSI N14.1 sec 6.3.2 Periodic Inspection and Test. At the lowest reading of .519 inches the cylinder walls are 166% of the required minimum .3125 inches. Extensive visual inspection revealed no indication the welds of this cylinder and its means and method of fabrication are not the quality prescribed in ANSI N14.1

The nominal diameter, nominal length, minimum volume requirement, and wall thickness meet the requirements of ANSI N14.1-2001.

This cylinder is fitted with a Descote valve, serial # 268252. Six threads are exposed, indicating eight threads are engaged.

The back plug is stamped "11." Four threads are exposed, indicating seven threads are engaged.

**Inspection Conclusion:**

As per American National Standards, ANSI N14.1-2001. (Cylinders currently in service and not in accordance with this standard are acceptable for continued use, provided that they are inspected, tested, and maintained so to comply with the intent of this standard and are used within their original limitations.)

This cylinder shows no indication of external degradation below the established industrial standards.

Visual inspection finds all welds to meet code requirements. An inspection of the overall appearance shows no construction or craftsmanship discrepancies to indicate this cylinder does not meet the intent of this standard.

This cylinder was manufactured by DEPLAATIJZER INDUSTRI B.V. NL. This manufacturer is certified to manufacture U stamped UF6 cylinders for URENCO. Hundreds of cylinders manufactured by DEPLAATIJZER INDUSTRI B.V. NL have been recertified at Westinghouse's Columbia plant with no problems observed.

Thank you for the opportunity to be of service. If you have any questions or comments, please call at 803-407-3336 (office) or 803-479-9570 (mobile) or you can email me at [jshah@ctsiengineering.com](mailto:jshah@ctsiengineering.com).

Sincerely,

Carolina Materials Testing Company, INC.




Jack Shah  
President

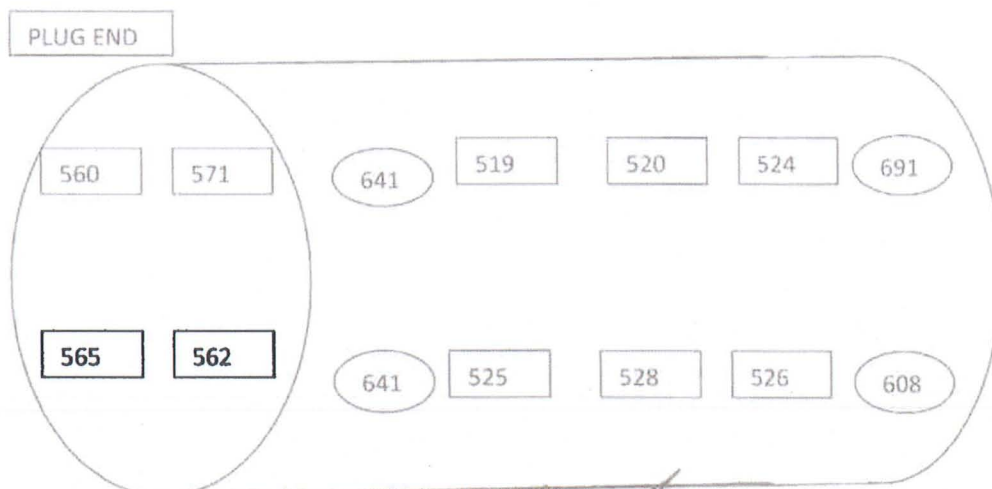
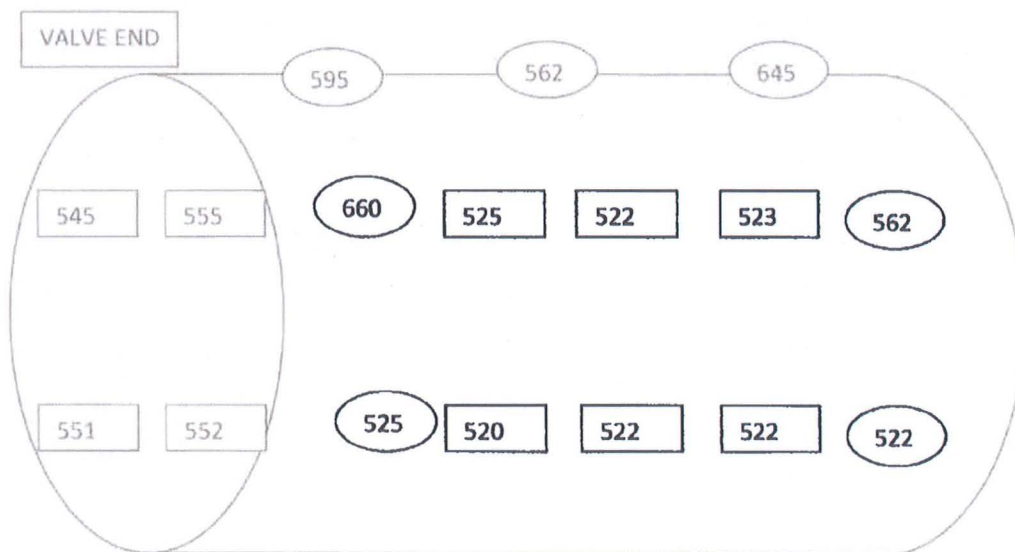
THICKNESS READINGS

DATE 4-16-2012

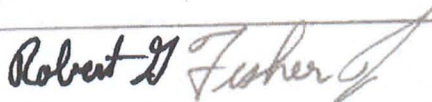
MFE. SERIAL #20 830-015, STOOMWEZEN # 4009024, URENCO # 1629/000387

THICKNESS IN THOUSANDS OF AN INCH

 INDICATES WELD THICKNESS



Robert G. Fisher Jr.



AWS CWI #05030191, South Carolina LLR License # 80



Robert G Fisher Jr.  
CWI 05030191  
QC1 EXP. 3/1/2014







**MFR SERIAL NR 20, 830-015**

**STOOMWEZEN REC. NR 4009024**

**URENCO NR 1629/000387**

**View of plug showing typical construction and no defects.**



**MFR SERIAL NR 20, 830-015**

**STOOMWEZEN REC. NR 4009024**

**URENCO NR 1629/000387**

Side view from valve end showing typical construction and no defects.



**MFR SERIAL NR 20, 830-015**

**STOOMWEZEN REC. NR 4009024**

**URENCO NR 1629/000387**

**Side view of plug end showing typical construction and no defects.**





**MFR SERIAL NR 20, 830-015**

**STOOMWEZEN REC. NR 4009024**

**URENCO NR 1629/000387**

**View of valve showing typical construction and no defects.**

Urenco

UF<sub>6</sub> CYLINDER INSPECTION DATA SHEET

CN-45

CYLINDER NUMBER <b>1629/000387</b>		CYLINDER MODEL <input type="checkbox"/> 30A (2 1/4-ton) <input type="checkbox"/> 48F (14-ton HW) <input type="checkbox"/> <input checked="" type="checkbox"/> 30B (2 1/4-ton) <input type="checkbox"/> 48V (14-ton HW) <input type="checkbox"/> <input type="checkbox"/> 48A (10-ton) <input type="checkbox"/> 48G (14-ton LW) <input type="checkbox"/> <input type="checkbox"/> 48X (10-ton) <input type="checkbox"/> 48H (14-ton LW) <input type="checkbox"/>		<input type="checkbox"/> DATE SHIPPED <input checked="" type="checkbox"/> DATE RECEIVED WATER CAPACITY <b>759 LTR</b> HYDROSTATIC PRESSURE TEST DATE OF _____ <input type="checkbox"/> IS ACCEPTABLE <input type="checkbox"/> IS NOT ACCEPTABLE CYLINDER'S CONTENTS ARE SOLIDIFIED <input type="checkbox"/> YES <input type="checkbox"/> NO		CYLINDER BEING INSPECTED <input type="checkbox"/> PRIOR TO BEING SHIPPED <input checked="" type="checkbox"/> AFTER BEING RECEIVED <input type="checkbox"/> PRIOR TO BEING FILLED <input type="checkbox"/> PRIOR TO BEING TESTED		
Cylinder is Code Stamped <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		INCHES Hg _____		CYLINDER STATUS <input type="checkbox"/> FULL <input type="checkbox"/> EMPTY				
CYLINDER IS OVERFILLED: <input type="checkbox"/> YES <input type="checkbox"/> NO. Net weight is _____ pounds; Maximum Allowable Fill Limit is _____ pounds.							CONDITION Acceptable Un-Acceptable Not Applicable	
I. CYLINDER VALVE, VALVE PORT AND PLUGS	A. VALVE <b>DELCOTE 1"</b>							
	1. Valve Type						✓	
	2. Physical Damage						✓	
	3. Thread Engagement (Threads showing <b>5</b> )						✓	
	4. Valve Cap - Present and in Place						✓	
	B. VALVE PORT							
	1. Plugged with UF <sub>6</sub>							
	2. Contaminated with Other U-Salts or Foreign Material							
	C. PLUGS							
	1. Physical Damage							
2. Thread Engagement <b>7 (seven)</b> (Threads showing <b>4</b> )						✓		
3. Sealed						✓		
D. VALVE PROTECTOR: ~								
1. Present and Properly Positioned								
2. Sealed								
Description of Damage (if any):								
II. CYLINDER WELDS	A. CIRCUMFERENTIAL HEAD SEAM WELD - VALVE END						✓	
	B. CIRCUMFERENTIAL HEAD SEAM WELD - PLUG END						✓	
	C. LONGITUDINAL SEAM WELD						✓	
	D. LIFTING LUGS - WELD							✓
Description of Damage (if any):								
III. CYLINDER SHELL AND HEADS	A. SHELL						✓	
	B. HEAD-VALVE END						✓	
	C. HEAD-PLUG END						✓	
	Description of Damage (if any):							
IV. STIFFENING RINGS	A. VALVE END							✓
	B. CENTER							✓
	C. PLUG END							✓
	Description of Damage (if any):							
V. SKIRTS	A. VALVE END						✓	
	B. PLUG END						✓	
Description of Damage (if any):								
DATE AND TIME INSPECTED <b>4-16-2012</b> INSPECTED BY <b>Robert G. Fisher</b>								
THIS SECTION TO BE COMPLETED BY QUALITY EVALUATION.								
REMARKS								
SECTION A		The above item(s) is <input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable						
		DATE		QUALIFIED INSPECTOR				
THIS SECTION TO BE COMPLETED WHEN THE DAMAGE INDICATED ABOVE IS EVALUATED BY OTHER THAN QUALITY EVALUATION PERSONNEL.								
The following damage has been evaluated and disposition is:								
SECTION B								
		APPROVED BY		TITLE		DATE		
UCN-9008 (5-2-92) DISTRIBUTION White - Uranium Control (KYRC) Blue - Quality Evaluation (When Section A is completed) Buff - Originator								
CONDITION LEGEND: A - Acceptable B - Unacceptable NA - Not Applicable								

## Typical Cylinder Inspection Data Sheet

URENCO NR 1629/000387  
 MFR Serial NR 20-830-015