# STATEMENT OF CAPABILITIES AND QUALIFICATIONS



The Most Diverse Line Of Nuclear Safety-Related Flow Control Components



Target Rock, Division of Curtiss-Wright Flow Control Corporation 1966E Broadhollow Road, East Farmingdale, New York 11735 Phone: (631) 293-3800 FAX: (631) 293-6144

June 2010



# **TABLE OF CONTENTS**

1.0	COMPANY INFORMATION	3
1.1	Basic Information	3
1.2	Summary of CWFC Company History	3
2.0	MAJOR PRODUCTS	4
2.1	Product Lines	4
2.2	Services	4
2.3	Available Equipment Qualifications	5
3.0	FACILITIES	5
3.1	Main Manufacturing Facility	5
3.2	Branch Facilities	5
3.3	Sub-Contractors	5
4.0	PERSONNEL	6
4.1	Number of Employees	6
4.2	Status of Technical Certificate Holders	6
4.3	Certified NDE Personnel	6
5.0	EXPERIENCE	7
5.1	Recent Scopes for Supply for Major Projects	7
5.2	Overview of Installed Base	
6.0	QUALITY SYSTEMS	8
6.1	Status of Quality Assurance System	8
6.2	List of the Certificates of Authorization	8
6.3	List of Codes and Standards Regarding Design, Manufacture, and/Or Tests	9
6.4	Tests and Inspection Procedures	9
7.0	DESIGN/CALCULATION/TOOLS	10
7.1	Design Analysis	10
7.2	Software	10
8.0	FINANCIAL STATUS	10

## Attachments

- 1. Equipment List
- Overview of Target Rock Nuclear Safety-Related Installed Base
- 3. ASME Certificates



#### 1.0 COMPANY INFORMATION

#### 1.1 Basic Information

Company Name Target Rock

A business unit of Curtiss-Wright Flow Control Corporation

Address 1966E Broadhollow Road

East Farmingdale, New York 11735 U.S.A.

Phone: 1-631-293-3800 Fax: 1-631-293-4949

e-mail: <u>TR\_Sales@curtisswright.com</u> website; <u>www.targetrockcwfc.com</u>

Points of Contact Mr. Steven Pauly, Vice President – Energy Products \*Main Contact

Mr. James White, General Manager

Mr. Heath Lew, Asian Business Manager (Director, CWFC-Korea)

Mr. John DeBonis, Commercial QA Manager

Parent Company Curtiss-Wright Corporation

4 Becker Farm Road

Roseland, New Jersey 07068

U.S.A

www.curtisswright.com

New York Stock Exchange Symbol: CW

#### 1.2 Summary of CWFC Company History

- Date Business Founded: 1951
- Original Company Name: Target Rock Corporation
- Changed company name to Curtiss-Wright Flow Control Corporation in 1997.
- Acquired Enertech in 1998
- Acquired Farris Engineering in 1999
- Acquired Solent & Pratt in 2001
- Acquired Electro-Mechanical Division (EMD) from Westinghouse in 2002
- Acquired Groquip in July 2004
- Acquired Techswan, Inc in December 2005
- Acquired Enpro Systems Ltd. in April 2006
- Acquired Scientech in May 2007
- Acquired Mechetronics LTD in October 1, 2008
- Acquired VMETRO in October 15, 2008
- Acquired Nu-Torque in January 19, 2009
- Acquired EST Group, Inc in March 3, 2009



#### 2.0 MAJOR PRODUCTS

#### 2.1 Product Lines

Target Rock designs, manufactures, assembles, and tests the following types of nuclear safety-related valves:

Description	Line Size	Design	Design
	Range	<b>Pressure</b>	Temperature
		(Max)	(Max)
Solenoid-Operated Isolation Valves, including:	3/8 in. to 6 in.	2500 psig	700°F
<ul> <li>Reactor High Point Vent Valves</li> </ul>			
<ul><li>Sampling Valves</li></ul>			
<ul> <li>Power-Operated Relief Valves</li> </ul>			
<ul> <li>Containment Isolation Valves</li> </ul>			
Solenoid-Operated Control Valves, including:	1 in. to 6 in.	2500 psig	700°F
<ul> <li>Emergency Feedwater Control Valve</li> </ul>			
<ul><li>Pressurizer Spray Valve</li></ul>			
<ul><li>Steam Dump Valve</li></ul>			
Pilot-Operated Pressurizer Safety Valves	6 in. x 6 in.	2500 psig	700°F
Pilot-Operated Main Steam Safety/Relief Valves	6 in. x 10 in.	1250 psig	575°F
Direct-Acting Main Steam Safety Valves	6 in. x 10 in.	1385 psig	585°F
Direct-Acting Main Steam Safety/Relief Valves	8 in. x 10 in.	1385 psig	585°F
Direct-Acting Safety and Relief Valves	3/4" x 1" thru	2500 psig	700°F
	2" x 3"		
Motor Operated Valves for Severe Service	2 in. to 6 in.	2500 psig	700°F
Pressure Regulators	1 in.	3000 psig	400°F
I/P Converters	N/A	N/A	N/A
AOV 3-Way Pilot Solenoid Valves	N/A	N/A	N/A
Valve Skids	N/A	N/A	N/A

#### 2.2 Services

In addition to hardware products, Target Rock and our EES Engineering & Services group offer the following services:

**Contract Manufacturing** Significant machine shop under nuclear QA program with

capability to precision machine large pieces.

Flow Testing Major in-factory flow test facility capable of reproducing reactor

conditions.

**Plant Engineering** Separate engineering services group active in plant layout and

design.



### 2.3 Available Equipment Qualifications

Target Rock valves have been tested and qualified to a wide variety of demanding conditions required by industry standards, including:

- 1. ANSI B16.41
- 2. ASME QME-1
- 3. IEEE 323
- 4. IEEE 344
- 5. IEEE 383
- 6. Others upon request

In addition to these, Target Rock's solenoid valve technology has been subjected to a rigorous design review and in-situ test program resulting in approval of our designs for use in Russian NPP designs.

#### 3.0 FACILITIES

#### 3.1 Main Manufacturing Facility

Total Area: over 11 acres

Indoor Foot Print: 187,642 ft.2 Total Floor Space: 240,000 ft.<sup>2</sup> Classification of Ownership: Own

Please refer to the Attachment 1 equipment List for a summary of the equipment in use at this facility.

#### 3.2 Branch Facilities

- A. CJSC-SV ("Solenoid Valve") Velikiy Novgorod, Nekhinskaya, 61 Russia 173021
- B. CWFC-Korea
   3 Ma 713 Siwha National Industrial Complex
   Jungwang-Dong Sihung-Si
   Kyunggi-Do Korea 429-450

#### 3.3 Sub-Contractors

Forgings and Castings are outsourced. All other work is performed in house.



## 4.0 PERSONNEL

# 4.1 Number of Employees

Engineering	Manufacturing	Test	Quality	Total
Design	Production	Inspection	Management	
34	94	20	12	211

# 4.2 Status of Technical Certificate Holders

Name	Current	Description of	Acquired	Issuing
	Position	Qualification	Date	Organization
		(Grade)		
Roseanne	Project Engineer	Professional Engineer	3/09	NY
Crockett				
Vito Liantonio	Manager	Professional Engineer	2/74	CA
Nick	Project Engineer	Professional Engineer	2/94	NY
Campanelli				
Daniel Wynn	Vice President	Professional Engineer	8/85	NY

## **4.3** Certified NDE Personnel

Test Method	Level 1	Level II	Level III
Ultra-Sonic	0	0	1
Radiographic	0	0	1
Magnetic Particle	0	0	2
Liquid Penetrant	1	4	2
Visual	0	3	2
He-Leakage	0	2	1



## 5.0 EXPERIENCE

# 5.1 Recent Scopes for Supply for Major Projects

Customer	<b>Item Description</b>	Plant	Number of	Supplied
			Valves	Date
Rosenergatom	Solenoid Valves	Leningrad	6 Valves	2002, 2004
General Electric	Main Steam	Lungmen 1/2	36 Valves	2004
	Safety /Relief			
	Valves			
Doosan	NSSS SOV	Ulchin 3 & 4	28 Valves	1995
Doosan	NSSS SOV	Ulchin 5 & 6	28 Valves	2000 thru 2003
Doosan	NSSS SRV	Ulchin 3 & 4	90 Valves	1995
KHNP	BOP SOV	Ulchin 3 & 4	216 Valves	1996
Doosan	NSSS MOV	Ulchin 3 & 4	8 Valves	1996
Doosan	NSSS MOV	Yonggwang 3 & 4	8 Valves	1994
Doosan	NSSS MOV	Yonggwang 5 & 6	8 Valves	1999
Doosan	NSSS MOV	Ulchin 5 & 6	8 Valves	2002
KHNP	BOP SOV	Yonggwang 5 & 6	>150 Valves	1999
KHNP	BOP SOV	Ulchin 5 & 6	>150 Valves	2001 thru 2002
KHNP	BOP SRV	Yonggwang 5 & 6	>300 Valves	1999 thru 2001
KHNP	BOP SRV	Ulchin 5 & 6	>300 Valves	2001 thru 2002
KHNP	BOP SOV	Shin-Kori 1 & 2	>268 Valves	2003 thru 2008
Doosan	NSSS SOV	Shin-Kori 1 & 2	54 Valves	2003 thru 2008
		Shin-Wolson 1& 2		
Solenoid Valves	BOP SOV	Koodankulam	96 Valves	2006 thru 2007
KHNP	BOP SRV	Shin-Kori 3&4	312 Valves	2009 thru 2010

## **5.2** Overview of Installed Base

Target Rock has over 6,000 valves installed in nuclear safety-related applications worldwide.

Attachment 2 provides an overview of this installed base by plant.



# 6.0 QUALITY SYSTEMS

# **6.1** Status of Quality Assurance System

Has QA System been established	Yes 🛛 No 🗌	Date of Establishment	1953
Applied Code *& Standard for QA System	NQA-1, 10CFR50 Appendix	х В	
	Auditing		
Have external audits for QA System	Organizations	Last Audited Date	Remarks
been Performed?			
Yes ⊠ No □	ASME and	December, 2007	Periodic
	NUPIC		

An uncontrolled copy of the Target Rock QA Manual is available upon request.

## **6.2** List of the Certificates of Authorization

Description	Authorizing	Effective	Certified Items	Address of
	Organization	Period		Certified Shop
"N" Stamp	ASME	12/12/10	Solenoid Operated	CWFC, Target
			Valves, Pressure	Rock Division
			Regulator Valves	
"NV"	ASME	12/12/10	Safety Relief Valves	CWFC, Target
Stamp				Rock Division
"NPT"	ASME	12/12/10	SOV & SRV	CWFC, Target
Stamp			Components and	Rock Division
			Material	

A copy of our ASME certificates is provided as Attachment 3.



# 6.3 List of Codes and Standards Regarding Design, Manufacture, and/Or Tests

No.	Issuer	Code/Standard No.	Subject	Issued Year
1	ASME	Sec. I, II, III, V, VIII, IX,	Boiler & Pressure Vessel	2004 Edition, 2006
		XI, NQA-1, QME-1	Code	Addenda
2	ANSI	B.16.34, B16.5, B16.41,		1996, 1996
		B31.1, B16.10, B16.11		1983, 2001, 2001,
				2002
3	NRC	10CFR50		2002
4	MSS	SP61, SP25	Manufacturer's Standards	1999, 1998
5	IEEE	382, 323,344,384	Electrical	1985, 1983, 1987, 1992
6	API	527		1991
7	NRC	Generic Letters &		Latest
		Reg. Guides		
8	ASTM	Various		Latest

# **6.4** Tests and Inspection Procedures

No.	Title	Documentation No. (Typical)	Organization Covered
1	Non-Destructive	1689	Quality Control
	Examination	2297	
	- LPI		
			Assembly and Test
2	Steam, Water, Gas	6732	
	Testing	6614	
			Metallurgical Laboratory
	Weld Qualification	11.210	
3	& Verification	11.800	
		12.100	



### 7.0 DESIGN/CALCULATION/TOOLS

## 7.1 Design Analysis

Target Rock routinely performs necessary analysis and evaluations to prepare Design Report in accordance with ASME Code requirements. An example of a typical Design Report can be provided upon request.

#### 7.2 Software

Program Name	Developer	Application
IDEAS Master Service	SDRC	CAD
Micro Station	Bently	CAD
ANSYS & Fluent	ANSYS	FE/CFD
AutoCAD	AutoPIPE	CAD
ADLPipe		Stress Analysis
Pd. STRUTU	Delta	Design & Analysis

### 8.0 FINANCIAL STATUS

Financial Data is reported by our parent company, Curtiss-Wright Corporation. The latest Annual Report is available from our Corporate website at www.curtisswright.com.



Equipment	Qty.	Description	Capacity	Weight Cap
			CNC Lathe	
Mori-Seiki MT-2500-SZ	1	Mill/Turn Multitask Machining Center	2 Spindles 30 HP Each, 12" Chucks 4000 RPM, B Axis, Lower Turret, 60 " Between Spindles, X 22.24", Y 4.53", Z 62.95", Max Dia 21.65"	
Mori-Seiki NT-5400- 1800SZ	1	Mill/Turn Multitask Machining Center	2 Spindles 50 HP Each, 15" Chucks 2400 RPM, B Axis, Lower Turret, 88.90" Between Spindles, X 40.90", Y 10.00", Z 76.40", Max Dia 36.20",	
Mazak SQT 18MS	1	CNC Turning Center	Swing 20.9", Bar Capacity 2.52" X 19.96", 12 Live Turret Positions	
Okuma LC-40-2ST	2	CNC Lathe	X 11.8", Z 51.2", Max Dia 23.6"	
Mazak SlantTurn 60 ST-609 3/4-3000	1	CNC Lathe	X 25.39", Z 81.49", Max Dia 36.02"	
Mazak SlantTurn 40N	1	CNC Lathe	X 8.25", Z 20.9", Max Dia 21.25"	
Mazak SlantTurn 15	1	CNC Lathe	X 8.25", Z 20.9", Max Dia 15.0"	
Mazak ST 35N ATC MC	1	CNC Lathe	16 Tools All Live, 48" Between Centers, Max Dia 18.0"	
Shibaura TSN-20A	1	Vertical Turning Center	Table Dia 78.7", Swing 98.42", Height Under Ram 72.8", X Travel 3.94" - 49.2", Z Travel 49.21", Vert Travel Cross Rail 39.21"	
Shibaura TMC20A	1	Vertical Turning Center	Table Dia 78.7", Swing 98.42", Height Under Ram 86.61", X Travel 3.94" - 49.2", Z Travel 49.21", Vert Travel Cross Rail 49.21"	
Morando Retrofit	1	Vertical Tracing Lathe	Table Dia 50.7", X Travel 48", Z Travel 36", Vert Travel Cross Rail 30"	
			CNC Mill	
OKUMA MA600HB	1	Horizontal Machining Center With Turning Capacity - With 30 Pallet Pool	40 HP Spindle X 39.37",Y 35.43",Z 39.37" 200 Tool Magazine 30 Pallet Pool System Turning Dia 30"	2,640 LBS
Nomura FBA-70T-R3 Fanuc 16-M	1	Horizontal Machining Center With U Head Turning Capacity	X 78.7",Y 49.2",Z 55.1", Turning Dia 40"	9,920 LBS
Mori-Seiki MV-1003B	1	Vertical Machining Center	X 94.49", Y 40.16", Z 31.5"	11,000 LBS
Mazak H-800	1	Horizontal Machining Center With U Head Turning Capacity	X 49.21", Y 39.37", Z 33.46" Pallet 31.5" x 31.5"	4,800 LBS
Mazak MTV-414	1	Vertical Machining Center	X 22.05", Y 16.4", Z 18.11"	1,103 LBS
Bostomatic BD32-2	1	Vertical Machining Center	X 31.89", Y 16.14", Z 20.08", 12,000 RPM Main Spindle, 25,000 RPM Auxiliary Spindle, Full 4th Axis	1,103 LBS
Mazak V-20.E	1	Vertical Machining Center	X 60", Y 30", Z 30"	6,600 LBS



			CNC EDM	
Mitsubishi M25J	1	Sinker EDM	Tank 27.56" X 17.72" X 12.2", Table Dim 19.69" X 13.98", Travel X 9.84", Y 7.87"	550 LBS
Charmilles Andrews Wire EDM 22- 930	1	CNC Traveling Wire EDM	Travel X 30", Y 15" Max Workpiece 47" X 27" Throat Depth 19"	
		Co	nventional Milling	
Nomura B- 130.SWR	1	Horizontal Boring Center	X 94.5", Y 84", W 35.4, Z 60"	22,000
Moore Jig Grinder Model #2	1	Jig Grinder	X 12", Y 12", Z 6"	
Shizouka	1	Vertical Knee Mill	X 48", Y 12", Z 6"	
Bridgeport Series 2	1	Vertical Knee Mill	X 48", Y 12", Z 6"	
Bridgeport	1	Vertical Knee Mill	X 36", Y 12", Z 6"	
SuperMax	1	Vertical Knee Mill	X 36", Y 12", Z 6"	
		Cor	nventional Turning	
Hardinge Chucker HLV-H	2	High Precision Engine Lathe	X 6", Z 18", Max Dia 11"	
Hardinge Turret Lathe	1	High Precision Turret Lathe	X 6", Z 18", Max Dia 11"	
American Lathe	2	Engine Lathe	X 20", Z 78", Max Dia 25"	
American Lathe	1	Engine Lathe	X 20", Z 54",Max Dia 21"	
American Lathe	1	Engine Lathe	X 16", Z 54", Max Dia 21"	
Hitachi Seiki Turret Lathe 7D	2	Turret Lathe	X 16.5", Z 44",29-7/8" Max Dia	
Hitachi Seiki Turret Lathe 5D	2	Turret Lathe	X 11-13/16", Z 88.5", Max Dia 24-3/8"	
Hitachi Seiki Turret Lathe 5AII	1	Turret Lathe	X 11-3/4", Z 86-1/2", Max Dia 24-1/2"	
Kia MT Seiki Turret Lathe 4AII	1	Turret Lathe	X 9-7/8", Z 67", Max Dia 19-1/4"	
Martin	1	Engine Lathe	X 16", Z 110", Max Dia 24"	
		Con	ventional Grinding	
Okamoto PSG-63UAN ACCUGAR- 124N	1	Surface Grinder	14" x 24" Table	
Blohm HFS-9	1	Surface Grinder	12" x 35" Table	
Okamoto PSG 125	1	Surface Grinder	20" x 47" Table	_
Schaudt KRS-750	1	OD Grinder	6" Chuck , 36" Table	
Cincinnati	1	Centerless Grinder		



		•	Targo	et Rock
Jones & Lamson Model 12 X 45	1	Thread Grinder		
Sunnen 1804	1	Hone		
			Gun Drilling	
Dehoff H2-36-15	1	Twin Spindle Gun Drill	350 - 2100 RPM, .375 - 1.5 Dia Drill, 36" Stroke, .5 - 30 IPM	
Lewellen	1	Gun Drill		
		То	ol/Cutter Grinding	
Drill Sharpener	1	Automatic Drill Sharpener	3" Capacity	
Drill Sharpener Practica AG 4132 Muttenz	1	Drill Sharpener	1" Capacity	
Top Work CM-2	1	Tool And Cutter Grinder	24" Table, Tilt And Rotate Head	
Cincinnati	1	Tool And Cutter Grinder	24" Table, Air Bearing Spindle, Tilt And Index Head	
Brown & Sharpe	1	Tool And Cutter Grinder	24" Between Centers , 4" Chuck	
			Tool Room	
Hardinge Chucker	1	High Precision Engine Lathe	X 5", Z 16", Max Dia 11"	
Bridgeport Series I	1	Vertical Knee Mill	X 36", Y 12", Z 6"	
Mori Seiki	1	Engine Lathe	X 10", Z 30", Max Dia 18"	
DoAll	1	Surface Grinder	6" X 12" Capacity	
		Auto	mated Measurement	
Sheffield Cordax Endeavor+ 12.20.10	1	Motorized Coordinate Measuring Machine	X 48", Y 80", Z 40"	
Sheffield Cordax 1808 DCC MEA	1	Motorized Coordinate Measuring Machine	X 30", Y 25", Z 20"	
OGP QL30	1	Optical Comparator	30" Viewable Screen	550 LBS
Jones & Lamson A-7237 Classic 10	1	Optical Comparator	10" Viewable Screen	
Romer 3000i & Infinite	2	Portable CMM		
		M	IE Dept. Software	
Mastercam	5 Seats	Version X2	Mill Level 3	
Mazatrol Emulator				
Focal Point		DNC Server	Version 4	

# Attachment 2 – HISTORICAL OVERVIEW OF TARGET ROCK INSTALLED NUCLEAR SAFETY-RELATED BASE

		Solenoid-Operated Valves			S	Safety and						
Plant	Customer	SOV- Isolation	SOV- Control	FW Control	Pzr Spray	PORVs	SRVs	Pzr Safety	MSSVs	MSRVs	PRegs	MOVs
Angra	Furnas Centrais Electric	0										
Almaraz Nuclear Power Plt. 1 & 2	Compania Sevillan de Electricidad	0										
Arkansas Nuclear 1 & 2	Entergy	0										0
Asco Nuclear Units 1 & 2	Fuerzas Electricas de Cataluna, SA	0								0		
Beznau Nuc. Pwr. Plt.	NOK (Switzerland)	0										
Beaver Valley No. 1 & 2	Duquesne Light Company	0										
Big Rock Point Plant	Consumers Power Company	0				0				0		
BKS-KKM Nuclear Power Station	Bernische Kraftwerke AG	0										
Braidwood Stations Units 1 & 2	Commonwealth Edison	0									0	
Brown's Ferry Units 1 & 2	Tennessee Valley Authority	0								0	0	
Brunswick Steam Electric Plant	Carolina Power & Light Company	0								0	0	
Bryon Station Units 1 & 2	Commonwealth Edison Company	0					0		0		0	
Callaway Nuclear Station 1 & 2	Union Electric Company	0										
Calvert Cliffs	Baltimore Gas & Electric Co.	0										
Centrale Nucleare Alto Lazio	AMN	0										
Chin Shan Nuc. Pwr. Plt.	Taiwan Power Co.	0										
Clinton Power Station - Unit 1	Illinois Power Company										0	
Comanche Peak Units 1 & 2	Texas Utilities Generating Company	0										
Cooper Nuclear Station	Nebraska Public Power District	0								0		
Crystal River Unit #3	Florida Power Corporation	0										
D.C. Cook Nuclear Power Plant	Indiana/Michigan Elec. Co.	0										
Davis-Besse Nuclear Power Plt.	Toldeo Edison	0										
Diablo Canyon Units 1 & 2	Pacific Gas & Electric Company	0										
Dresden Stations 2 & 3	Commonwealth Edison Company	0								0		
Duane Arnold Energy Station	Iowa Electric Light & Power Co.	0								0		
E.I. Hatch	Georgia Power	0								0		
Enrico Fermi #2	Detroit Edison	0								0		
Joseph M. Farley Nuclear Plant Units 1 & 2	Alabama Power Company	0										
J. A. Fitzpatrick Nuclear Plant	New York Power Authority	0								0		
Fort Calhoun - No. 1	Omaha Public Power District	0										
Grand Gulf Nuc. Station	Entergy	0										
Hope Creek Nuclear Generating Station Unit 1	Public Service Electric & Gas Co.	0					0		0	0		
Indian Point - No. 3	New York Power Authority	0										



# Attachment 2 – HISTORICAL OVERVIEW OF TARGET ROCK INSTALLED NUCLEAR SAFETY-RELATED BASE

				Solenoid-Operated Valves						Safety and Relief Valves				
Plant	Customer	SOV- Isolation	SOV- Control	FW Control	Pzr Spray	PORVs	SRVs	Pzr Safety	MSSVs	MSRVs	PRegs	MOVs		
Jose Cabrera Nuc. Pwr. Plt.	Union Electrica, SA													
Kewaunee Nuclear Station	Wisconsin Public Service Corp.	0												
KORI - Units 3 & 4	Korea Electric Power Corp.	0	0	0			0				0			
Krsko Nuclear Plant - Yugoslavia	Westinghouse Electric Corporation	0												
Kuosheng Nuclear Power Station Units 1 & 2	Taiwan Power Company	0												
Laguna Verde - Units 1 & 2	Comision Federal de Electricidad	0												
Leningrad	Rosenergatom	0												
Limerick Generating Station	Philadelphia Electric Company	0								0				
Lungmen	Taiwan Power Company						0			0				
Maanshan	Taiwan Power Company	0					0							
McGuire Nuclear Station	Duke Power Corporation	0												
Midland	Consumers Power Company	0			0	0								
Millstone	Northeast Utilities	0	0	0						0	0			
Monticello Station	Northern State Power Company	0								0				
Nine Mile Point - Unit 2	Niagara Mohawk Power Company	0												
North Anna Stations 1 & 2	Virginia Electric & Power Company	0									0			
Oconee - Units 1 & 2	Duke Power Company	0		0										
Oyster Creek Nuclear Station	Jersey Central Power & Light	0												
Palisades Nuclear Plant	Consumers Power Company	0				0						0		
Palo Verde Nuc. Gen. Station	Arizona Public Service	0					0							
Peach Bottom Atomic Power Station Units 2 & 3	Philadelphia Electric Company	0								0				
Perry Nuclear Plant Units 1 & 2	Cleveland Electric Illuminating Co.	0					0				0			
Philippine Nuclear Plant 1	Philippine National Power Company													
Pilgrim Station No. 2	Boston Edison Company									0				
Point Beach Units 1 & 2	Wisconsin Electric Power Company	0												
Quad Cities Nuclear Power Station	Commonwealth Edison					0				0				
Prairie Island Plants 1 & 2	Northern States Power Company	0												
River Bend Station - Unit No. 1	Gulf States Utilities Company										0			
H.B. Robinson Plant - No. 1	Carolina Power & Light Company									0				
Salem Nuclear Generating Station Units 1 & 2	Public Service Electric & Gas Co.	0												
San Onofre Nuclear Generating Station Units 1, 2, & 3	Southern California Edison Co.	0										0		
Sequoyah - Units 1 & 2	Tennessee Valley Authority	0	[]			0								



## Attachment 2 – HISTORICAL OVERVIEW OF TARGET ROCK INSTALLED NUCLEAR SAFETY-RELATED BASE

			Solenoid	Operated	Valves			Safety and				
Plant	Customer	SOV- Isolation	SOV- Control	FW Control	Pzr Spray	PORVs	SRVs	Pzr Safety	MSSVs	MSRVs	PRegs	MOVs
Shearon Harris Nuclear Plants - Units 1 & 2	Carolina Power & Light Company											
Shin-Ulchin Units 1&2	KHNP											
Shin-Ulchin Units 3&4	KHNP											
Shin-Wolsong Units 1&2	KHNP											0
Sizewell "B"	Nuclear Electric, Ltd.											
South Texas Project Units 1 & 2	Houston Lighting & Power Co.											
St. Lucie Plants 1 & 2	Florida Power & Light Company	0										
Sta. Maria de Garona	Nuclenor											
Surry Power Stations	Virginia Electric & Power Company											
Susquehanna Steam Electric Station Units 1 & 2	Pennsylvania Power & Light Co.										0	
Three Mile Island	Metropolitan Edison Company	0										
Turkey Point Units 3 & 4	Florida Power & Light Company											
Ulchin Units 3 & 4	Korea Electric Power Corp.											
Ulchin Units 5 & 6	Korea Electric Power Corp.											
V.C. Summer Nuclear Station	South Carolina Electric & Gas Co.											
Vandellos	Hifrensa - Francesa de Energia											
Vermont Yankee Nuclear Power Station	Vermont Yankee Nuc. Pwr. Corp.	0										
Vogtle Nuclear Plant Units 1 & 2	Georgia Power Company											
Washington Nuc. Pwr.	Washington Public Power Supply System										0	
Waterford Station Unit 3	Louisiana Power & Light Company	0					0				0	
Watts Bar Nuclear Station	Tennessee Valley Authority	0				0					0	
Wolf Creek Generating Station	Kansas Gas & Electric Company	0										
Yonggwang Units 1 & 2	Korea Electric Power Corp.				0							
Yonggwang Units 3 & 4	Korea Electric Power Corp.	0		0								0
Yonggwang Units 5 & 6	Korea Electric Power Corp.			0								
Zion Stations 1 & 2	Commonwealth Edison Company			_							_	



#### **Attachment 3 - ASME Certificates**



#### **CERTIFICATE OF AUTHORIZATION**

This certificate accredits the named company as authorized to use the indicated symbol of the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the Code symbol and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this symbol shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

Target Rock
Division Of Curtiss-Wright Flow Control Corporation
1966E Broadhollow Road
E. Farmingdale, New York 11735

SCOPE:

The American Society of Mechanical Engineers

Construction of class 1, 2 & 3 valves at the above location only

AUTHORIZED:

January 25, 2008

EXPIRES:

December 12, 2010

CERTIFICATE NUMBER: N-1947

J.D. FRANCE

Chairman of The Boiler And Pressure Vessel Committee



Director, Accreditation and Certification



#### **CERTIFICATE OF AUTHORIZATION**

This certificate accredits the named company as authorized to use the indicated symbol of the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the Code symbol and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this symbol shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

Target Rock Division Of Curtiss-Wright Flow Control Corporation 1966E Broadhollow Road E. Farmingdale, New York 11735

The American Society of Mechanical Engineers

Construction of class 1, 2 & 3 pressure relief valves at the above location only

AUTHORIZED:

January 25, 2008

alon

EXPIRES:

December 12, 2010

CERTIFICATE NUMBER: N-1949

Chairman of The Boiler And Pressure Vessel Committee



Director, Accreditation and Certification

Be





#### CERTIFICATE OF **AUTHORIZATION**

This certificate accredits the named company as authorized to use the indicated symbol of the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the Code symbol and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this symbol shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

Target Rock
Division Of Curtiss-Wright Flow Control Corporation
1966E Broadhollow Road
E. Farmingdale, New York 11735

SCOPE:

Class 1, 2 & 3 fabrication without design responsibility and with design responsibility for appurtenances and as a material organization supplying ferrous & nonferrous material at the above location only

AUTHORIZED:

January 25, 2008

EXPIRES: CERTIFICATE NUMBER: N-1948

December 12, 2010

Chairman of The Boiler And Pressure Vessel Committee

alm Bc

Director, Accreditation and Certification

Engineers The American Society of Mechanical