CLIENT Project (AFE) No:		EnSiteUSA	Job No.:	8122
CLIENT DOC No.			Doc No.:	
Revision:	A		Revision:	B
Rev. Date:	5/16/2025		Rev. Date:	5/16/2025

KYMEA ENERGY CENTER

DATA SHEET - CONTROL SKID VALVES

- ■ **ISSUE FOR REVIEW**
- ☐ **DRAFT ISSUE FOR COMMENTS**
- ☐ **ISSUE FOR BID**
- ☐ **ISSUE FOR CLIENT APPROVAL**
- ☐ **ISSUE FOR CONSTRUCTION – Rev 0**
- ☐ **ISSUE AS REVISED DOCUMENT**

APPROVALS

Mechanical Engineer	Date
Andrew Roach	5/16/2025
Project Manager	Date
Byron Marlowe	5/16/2025
Client - Project Manager	Date

Approvals:

	By:	Date:
Initiator	CB	05/16/25
Process		
Mechanical		
Civil		
Electrical		
Instrumentation	HO	05/16/25
Project Eng.	RC	05/16/25
Project Mgr.	BM	05/16/25
Client		

Revisions:

Rev.:	Date:	By:	Approval:
A	03/10/25	CB	IFR
B	05/16/25	AR	IFB

Reference Documents

8122_P&ID - PROCESS & INSTRUMENTATION DIAGRAM
EC-DS-007 - DESIGN STANDARD: METER STATION, REV. 1.20
OP-CC-GS-COAT-001 General Coating Specifcations, Revisions 3.20, 05/31/2024
EnSiteUSA P&ID

KYMEA ENERGY CENTER
DATA SHEET - CONTROL REGULATOR VALVES

Date: 05/06/2025

By: Christopher Baca

General			Basis of Selection		
1	Valve Numbers:	PCV-4133 & PCV-4134	5	Code: ASME B31.8	B16.34, API 6D, NACE MRO 175, API 6FA, MSS SP 44
2	Existing serial Number:	N/A		Stamp Required: Yes/No	No
3	Description			Other:	
	(2 EA) - 4" Control Regulator Valves		6	Comply with API 526: Yes/No	N/A
			7	Application:	
			8	Rupture Disk: Yes/No	
4	Procurement Point				
	Rob Leesman, VP of Market Analytics rleesman@kymea.org Kentucky Municipal Energy Agency (KYMEA) 1700 Eastpoint Parkway Ste. 220 Louisville, KY 40223				
5	Ship To				
	KYMEA Energy Center I Attn: Stan Conn 1957 AC Slaton Rd. Madisonville, KY 42431				

Valve Design				Materials		
9	Design Type:	Ball		17	Body:	ASME 16.34, Forged
	Bellows:	N/A		18	Bonnet:	ASME 16.34, Forged
	Balanced Piston:	Vendor to Specify		19	Seat (Nozzle):	DUAL SEATS/DPE or SPE (DPE PREFERRED)
10	Nozzle Type: Full/Semi	N/A			Ball:	ASME 16.34, ENP
11	Bonnet Type: Open/Closed	N/A		20	VMO:	SS
12	Seat Type: Metal-Metal/Resilient	Vendor to Specify		21	Filter Dryer:	N/A
13	Seat Tightness: API 527/Other	N/A		22	Bellows:	N/A
	Connections			23	Balanced Piston:	Vendor to Specify
14	Inlet Size:	4	in		Preparation:	Sandblast Per SP6, BWPL OP-CC-GS-COAT-001
	Rating:	ANSI	600	24	Coating:	BWPL OP-CC-GS-COAT-001, General Coating Spec
	Face:	RF		25	Other:	
15	Outlet Size:	4	in	26	Heater:	Yes
	Rating:	ANSI	600	27	Start Voltage:	12VDC
	Face:	RF		28	Enclosure:	

Service Conditions				Actuator		
36	Fluid and State	Gas		29	Action	Flow Control
	Reynolds Number:	-			Mount	Pilot-operated valve
37	Nominal Flow Rate:			30	Orientation	Horizontal, vertical stem
38	Flow Rate, Minimum:	75	SCFH		Hydraulic Oil Supply Pressure	N/A
39	Flow Rate, Maximum	26949	lbm/hr		Actuator Sizing	Vendor to Specify
40	Upstream MAOP:	965	psig	31	Sensor	
41	Downstream MAOP	965	psig	32	Close/Open Signal:	Local indicator and position switches.
42	Set Pressure:	(TBD)	psig	33	Power (pilot)	Natural gas
43	Inlet Normal Pressure:		psig	34	Rating	
44	Latent Heat of Vaporization:			35	Beacon	
45	Design Temperature:	-20/110	F			
46	Relieving Temperature:			**Ball Valve Options Checklist**		
47	Built-up Back Pressure:			62	Air Seat Test Required: Yes/No	Yes
48	Differential Pressure:		psig	63	Top Entry Design: Yes/No	No
	Upstream Max/Min Pressures (psig)			64	Specify if not Round-Port Full-Bore Pattern:	
	Downstream Max/Min Pressures (psig)			65	Floating Ball: Yes/No	No
				66	Bolted or Welded Body:	Bolted
49	Cold Differential Test Pressure:	N/A		67	Thermal Relief Valve: Yes/No	Yes, if DPE seats
50	Allowable Overpressure in Percent:	N/A		68	SS Plugs in Lieu of Sealent Fittings: Yes/No	No
51	Compressibility Factor, Z:	N/A		69	Lifting Lugs: Yes/No	No
52	Ratio of Specific Heats:					
53	Maximum Noise:	85	dB			

KYMEA ENERGY CENTER **DATA SHEET - CONTROL REGULATOR VALVES**		Date: 05/06/2025 By: Christopher Baca		
	Pneumatic Actuator Data (Reference: BWP Design Standard: Valve Actuator EC-DS-015)			
70	Manufacturer		Model	RV Series
71	Size		Speed (RPM)	
72	Actuator Orientation		Type	
73	Area Classification	Class I, Division 2. Group D	Temperature Class	
74	Certification		Type of protection	
75	Ingress Protection	NEMA 4	Electrical protection	
76	Power Supply		Action on Power Fail	Fail Last
77	Fireproofing		Remote Operation	
78	Valve Limit Switches OPEN / CLOSED status, proximity type sensors.	DPDT, 24VDC		
79	Power Storage Tank		Stroking time	
80	Input Signal		ESD	
81	Additional Switches / Equipment			
82	Handwheel			
83				
Addition Notes:				
NOTES:				
1.	All instruments shall be provided with a permanently attached 316SS tag stamped with the following information: Tag number, Service, Model Number, Serial Number, Size, Connection Type & Rating.			
2.	Valve dimensions to comply with API 6D, ASME B16.5 Class 600 and meet API 6FA.			
3.	Valve, actuator and accessories shall be assembled, mounted and tested by vendor per API 6D requirements.			
4.	Valves shall be hydrostatically shell and seat tested without leakage to at least the requirements of API 6D.			

KYMEA ENERGY CENTER
DATA SHEET - CONTROL ISOLATION VALVES

Date: 05/16/2025

General			Basis of Selection		
1	Valve Numbers:	GOV-4141, GOV-4142	5	Code: ASME B31.8	B16.34, API 6D, NACE MRO 175, API 6FA, MSS SP 44
2	Existing serial Number:	N/A		Stamp Required: Yes/No	No
3	Description	(2 EA) - 6" Control Isolation Valves		Other:	
4	Procurement Point	Rob Leesman, VP of Market Analystics rleesman@kymea.org Kentucky Municipal Energy Agency (KYMEA) 1700 Eastpoint Parkway Ste. 220 Louisville, KY 40223	6	Comply with API 526: Yes/No	N/A
			7	Application:	Control Skid Isolation Valve
			8	Rupture Disk: Yes/No	
5	Ship To	KYMEA Energy Center I Attn: Stan Conn 1957 AC Slaton Rd. Madisonville, KY 42431			

Valve Design				Materials		
9	Design Type:	Ball		17	Body:	ASME 16.34, Forged
	Bellows:	N/A		18	Bonnet:	ASME 16.34, Forged
	Balanced Piston:	Vendor to Specify		19	Seat (Nozzle):	DUAL SEATS/DPE or SPE (DPE PREFERRED)
10	Nozzle Type: Full/Semi	N/A			Ball:	ASME 16.34, ENP
11	Bonnet Type: Open/Closed	N/A		20	VMO:	SS
12	Seat Type: Metal-Metal/Resilient	Vendor to Specify		21	Filter Dryer:	N/A
13	Seat Tightness: API 527/Other	N/A		22	Bellows:	N/A
	Connections			23	Balanced Piston:	Vendor to Specify
14	Inlet Size:	6	in		Preparation:	Sandblast Per SP6, BWPL OP-CC-GS-COAT-001
	Rating:	ANSI	600	24	Coating:	BWPL OP-CC-GS-COAT-001, above grade
	Face:	RF		25	Other:	
15	Outlet Size:	6	in	26	Heater:	
	Rating:	ANSI	600	27	Start Voltage:	
	Face:	RF		28	Enclosure:	

Service Conditions				Actuator		
36	Fluid and State	Gas		29	Action	Rotary Vane Hydraulic, Fail Last, Refer to Exhibit 2B of the actuator specification, EC-DS-015.
	Reynolds Number:	-			Mount	Top
37	Nominal Flow Rate:			30	Orientation	Horizontal valve, VerticalStem, Vertical Actuator
38	Flow Rate, Minimum:	75	SCFH		Hydraulic Oil Supply Pressure	N.A.
39	Flow Rate, Maximum	26949	lbm/hr		Actuator Sizing	
40	Upstream MAOP:	965	psig	31	Sensor	
41	Downstream MAOP	965	psig	32	Close/Open Signal:	Local and electric CI/Op.See Shafer Diagram 4944-S
42	Set Pressure:		psig	33	Power	N.A.
43	Inlet Normal Pressure:		psig	34	Rating	Class 1, Div 1, Explosion Proof
44	Latent Heat of Vaporization:			35	Beacon	Required
45	Design Temperature:	-20/110	F			
46	Relieving Temperature:			**Ball Valve Options Checklist**		
47	Built-up Back Pressure:			62	Air Seat Test Required: Yes/No	Yes
48	Differential Pressure:		psig	63	Top Entry Design: Yes/No	No
	Upstream Max/Min Pressures (psig)			64	Specify if not Round-Port Full-Bore Pattern:	
	Downstream Max/Min Pressures (psig)			65	Floating Ball: Yes/No	No
				66	Bolted or Welded Body:	Bolted
49	Cold Differential Test Pressure:	N/A		67	Thermel Relief Valve: Yes/No	Yes
50	Allowable Overpressure in Percent:	N/A		68	SS Plugs in Lieu of Sealent Fittings: Yes/No	No
51	Compressibility Factor, Z:	N/A		69	Lifting Lugs: Yes/No	No
52	Ratio of Specific Heats:					
53	Maximum Noise at 3ft:	85	dB			

KYMEA ENERGY CENTER **DATA SHEET - CONTROL ISOLATION VALVES**		Date: 05/16/2025		KYMEA EnSiteUSA
	Pneumatic Actuator Data (Reference: BWP Design Standard: Valve Actuator EC-DS-015)			
70	Manufacturer	Shafer	Model	N/A
71	Size	N/A	Speed (RPM)	N/A
72	Actuator Orientation	N/A	Type	N/A
73	Area Classification	N/A	Temperature Class	N/A
74	Certification	N/A	Type of protection	N/A
75	Ingress Protection	N/A	Electrical protection	N/A
76	Power Supply	N/A	Action on Power Fail	N/A
77	Fireproofing	N/A	Remote Operation	Yes, Open/Close
78	Valve Limit Switches OPEN / CLOSED status, proximity type sensors.	Yes, with (4) Form C contacts. Stonel QX-4H-E-02-N-RA, or approved equal.		N/A
79	Power Storage Tank	N/A	Stroking time	N/A
80	Input Signal	N/A	ESD	N/A
81	Additional Switches / Equipment	N/A		
82	Handwheel	N/A		
83				
Addition Notes:				
NOTES:				
1.	Ball valves 6” and larger shall have double block and bleed and a secondary sealant system feature			
2.	All instruments shall be provided with a permanently attached 316SS tag stamped with the following information: Tag number, Service			
3.				
4.				
5.				