

Valve Inspection Checklist

PG&E PO: _____	ITEM#: _____	VALVE SERIAL #: _____
SIZE: _____	ANSI CLASS: _____	WE:(X) _____ FE:(X) _____ WE X FE:(X) _____
MANUFACTURER: _____	Verify valve is per PG&E Purchase Order for size, ANSI class, and ends.	

Purpose and Scope:

This inspection checklist provides a list of all of the items that shall be inspected as part of the PG&E factory inspection of a ball valve ordered per PG&E Numbered Document F-21.1, Material Specification for Carbon Steel Ball Valves. For any questions, discrepancies, or waivers, please contact [REDACTED] (PG&E) at [REDACTED]

References:

- API Specification 6D, Pipeline Valves (revision per CFR 49 Part 192)
- PG&E Numbered Document F-21, Standard Ball Valve List: Carbon Steel 2" through 24"
- PG&E Numbered Document F-21.1, Material Specification for Carbon Steel Ball Valves
- PG&E Purchase Order (PO)

ITEM NO.	REF. DOC.	REQUIREMENT	RECORDED DATA (yes/no & data)
1.	PO	Is valve nameplate complete and per API 6D? Record PG&E valve tag number (if applicable).	
2.	PO or API-6D	End-to-end dimension correct per PO (if specified) or per API 6D?	
3.	PO	Full port per PO?	
4.	F-21.1 para. 1.B	Raised faces on flanged-end valves?	
5.	F-21.1 para. 1.C	Body relief port plugged with steel plug?	
6.	F-21.1 Para. 2.B	Stem sealant and stem seal vent fittings plugged with a steel plug?	
7.	F-21.1 para. 1.D	Seat lubrication has large Sealweld Flow Wolf buttonhead grease fittings (Sealweld PNF-FW-1/2)?	
8.	F-21.1 para. 1.E	Body blowdown valve no smaller than 1/2" ball valve with screwed ends and maximum working pressure of 2500-3000 psig?	
9.	F-21.1 para. 1.F	Valve gear operator position indicator shows full-open when valve ball is fully open and shows full-closed position when valve ball is fully closed?	
10.	F-21.1 para. 1.F	If no gear operator, 2" square nut with indicator shows full-open when valve ball is fully open and shows full-closed position when valve ball is fully closed?	
11.	PO	Does weld-end WT (wall thickness) match PO? Record weld-end WT.	WT=
12.	F-21.1 para. 1.G	Pipe WT stamped on valve for weld-end valve?	
13.	PO	For gear operated valve with high head extension, is "A" dimension correct and match PO? Record measured "A" dimension (this is applicable to Figures 1-4).	"A"=
14.	F-21.1 para. 2.F	For gear operated valve with high head extension, is vent fitting on extension the Bettis breather (Bettis PN 029198)?	
15.	F-21.1 para. 1.I.(1)	1/4 turn wrench-operated valve maximum breakaway torque of 200 foot-pounds or less at maximum differential pressure? Shall be checked if specified in PO or at the discretion of the PG&E Inspector.	
16.	F-21.1 para. 1.I.(1)	Gear operated valve running torque of 80 foot-pounds or less and running handwheel rim force of 40 pounds or less, unless specified otherwise in Tables A-1 through D-4 of F-21.1? Shall be checked if specified in PO or at the discretion of the PG&E Inspector.	

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17.	F-21.1 para. 1.L(2)	Gear operator full-open to full-closed position is 125 turns or less, unless specified otherwise in Tables A-1 through D-4 of F-21.1?	
18.	F-21.1 para. 1.J	Teflon tape is not used at all?	
19.	F-21.1 para. 1.E & 2.B	<ul style="list-style-type: none"> • Is body blowdown valve a ball valve? • Body blowdown lines are per Figure 1-4 (as applicable)? • Body blowdown lines are seamless, Grade B, 1/2" or larger, Sch 80 pipe, and socket weld except at valve body connection and upper end at blowdown valve? • Body blowdown valve pointed radially outward on opposite side of extension from handwheel (for Figure 1) and vertical for Figures 2, 3, & 4? 	
20.	F-21.1 para. 2.B & 2.D	<ul style="list-style-type: none"> • Lubrication lines are per Figure 1-4 (as applicable)? • Lubrication lines are seamless, Grade B, 1/2" or larger, Sch 80 pipe, and socket weld except at valve body connection and upper end at grease fitting? • Lubrication lines are filled with lubricant Sealweld 911 or PG&E approved equivalent? • Sealweld Flow Wolf buttonhead fittings pointed radially outward (for Figure 1) and vertical for Figures 2, 3, & 4? 	
21.	F-21.1 para. 3.B(4)	Is valve complete (except for Sealweld Flow Wolf buttonhead grease fittings) before shell and seat hydrostatic tests?	
22.	F-21.1 para. 3.B(1)	Weld ends valve shell hydrostatic test is a minimum of 1.8 times the valve 100 degree F working pressure. This is 495 psi for ANSI Class 150 1,296 psi for ANSI Class 300 1,728 psi for ANSI Class 400 2,592 psi for ANSI Class 600 3,888 psi for ANSI Class 900 If valve is supplied from stock, a letter of certification stating valve may be shell tested to a maximum of 1.8 times the valve rating.	Shell test= _____ psig
23.	F-21.1 para. 3.B(2)	Flange by Weld or Flange by Flange ends valve shell hydrostatic test pressure is the minimum given below. This is 450 psi for ANSI Class 150 1,125 psi for ANSI Class 300 1,500 psi for ANSI Class 400 2,225 psi for ANSI Class 600 3,350 psi for ANSI Class 900	Shell test= _____ psig
24.	F-21.1 para. 3.C(2)	Was valve cycled from full-open to full-closed position at least 5 times before air seat test?	
25.	F-21.1 para. 3.C(1)	Did valve pass air seat test at 70-90 psig and for at least 5 minutes?	
26.	F-21.1 para. 3.C(3)	Test certificate for shell test?	
27.	F-21.1 para. 3.C(3)	Test certificate for seat test?	
28.	F-21.1 para. 3.C(3)	Test certificate for air seat test?	
29.	F-21.1 para. 5.A	Is valve ready for shipping with it in the open position with ends tightly covered?	
30.	F-21.1 para. 5.D	Are bolts holding lifting eyes tight? For single bolt lifting eyes, are lifting eyes welded or removed before shipping? If a valve is 14" or larger, lifting eyes shall be double bolt type. Are bolts holding feet tight? For single bolt feet, are feet welded or removed before shipping?	
31.	F-21.1 para. 1.H	Coating (standard primer) is 2 mils DFT for above ground valves?	
32.	F-21.1 para. 2.E(1) &	Buried valve complete exterior (everything) shop coated after shell test with two coats minimum of PG&E approved coating?	

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33.	F-21.1 para. 2.E.(1) & 2.E.(3)	Buried valve complete exterior (everything) shop coated after shell test with two coats minimum of PG&E approved coating?	
34.	F-21.1 para. 2.E.(5)	Buried valve finished coating is "holiday free" (no holes or defects) and passes wet sponge electrical test using 60-75 volts?	
35.	NA	Are certifications and test reports complete?	
36.	NA	Record any additional comments about inspection below.	
Inspector's Name: _____ Inspector's Signature: _____ Date: _____			