R10158650

BECHTEL	Mechanical Data Sheet: Vessel	Plant Item No. 24590-PTF-MV-FEP-VSL-00005 Data Sheet No. 24590-PTF-MVD-FEP-00003

Project:	RPP-WTP	P&IDs	24590-PTF-M6-FEP-00003
Project No:	24590		
Project Site:	DOE Hanford	Process Calculation 1	24590-PTF-MEC-FEP-00001
System No.	FEP		
Building:	PTF	Vessel Drawings	N/A
Description:	Waste Feed Evaporator Condensate Vessel FEP-VSL-00005		

ISSUED BY RPP-WTP PDC 12/21/04 INIT DATE

Reference Data

Charge Vessels (Tag Numbers)	N/A
Pulse Jet Mixers / Agitators (Tag Numbers)	N/A
RFDs/Pumps (Tag Numbers)	N/A

Service Data

Quality Level		CM	Fabrication Specification	24590-WTP-3PS-MV00-T0001
Seismic Category		SC-III	Design Code	ASME Section VIII Division 1
Service/Contents		Process Condensate	Code Stamp	Yes
Design Specific Gravity		1.0	NB Registration	Yes
Max Operating Volume	gal	4144**	Wind Design	None
Total Volume	gal	5022**	Snow/Ash Design	None
Postweld Heat Treat		Not Required	Seismic Design	24590-WTP-3PS-MV00-T0002 24590-WTP-3PS-SS90-T0001
Seismic Base Moment*	ft*lb			

Design Data

Inside Diameter	inch	96**		Corrosion Allowance inch	0.04
Length/Height (TL-TL)	inch	128**			
		Vessel Operating	Vessel Design	Coil/Jacket Design	Notes
Internal Pressure	PSIG	-0.07	15	N/A	
External Pressure	PSIG	0	14.7	N/A	
Temperature	°F	110	150	N/A	
Min Design Metal Temp	°F	49		Hydrostatic Test Pressure PSIG	22

Materials of Construction

Component	Material	Containment	Notes
Top Head	SA-240 T316 1	Auxiliary	1/4" thickness; maximum carbon content of 0.030% for welded components
Shell	SA-240 T316 1	Primary	1/4" thickness; maximum carbon content of 0.030% for welded components
Bottom Head	SA-240 T316 1	Primary	1/4" thickness; maximum carbon content of 0.030% for welded components
Vessel Support	Stainless Steel	N/A	Maximum carbon content of 0.030% for welded components
Jacket/Coils/Half-Pipe Jacket	N/A	N/A	
Internals	N/A	N/A	
Pipe	SA-312 TP316	Note 1	Maximum carbon content of 0.030% for welded components
Forgings/ Bar stock	SA-182 F316	Note 1	Maximum carbon content of 0.030% for welded components
Gaskets	Flex Spiral Wound		Flexitallic spiral wound
Bolting	A193 B8M 1		
Other			

Miscellaneous Data

Orientation		Vertical
Support Type		Skirt
Insulation Function		None
Insulation Thickness	inch	None
Insulation Material		None
External Finish		Welds descaled as laid
Internal Finish		Welds ground smooth

Notes

* To be determined by Seller.
** To be verified bySeller.
Notes: (1) Nozzles located below the top of the overflow nozzle are primary containment. See 24590-WTP-3PS-MV00-T0001 for NDE requirements.
(2) Nozzle tolerance +/- 1/4"
(3) Support pads shall be high to align vessel overflow nozzle centerline at 15'-5 3/8"
(4) 40 years design life
(5) NDE for this vessel must meet requirements per para. 6.4.2 of specification 24590-WTP-3PS-MV00-T0001

Revision History

Rev	Description	By	Checked	Reviewed	Approved	Date
1	Changed as noted	E. Le	R. Nowak	G. Butt	J. Julyk	1/31/04
0	Issued for Procurement	E. Le	A. Donnelly	J. Julyk	M. Hoffmann	4/30/2003