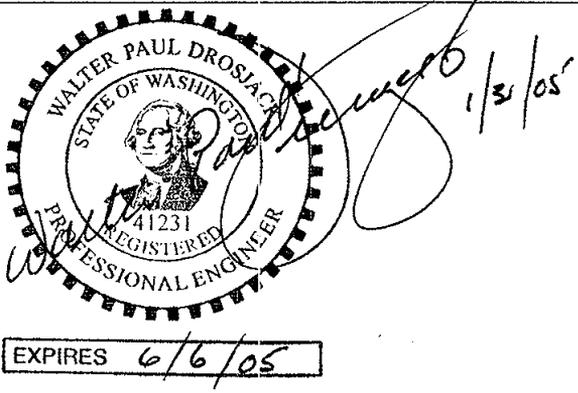
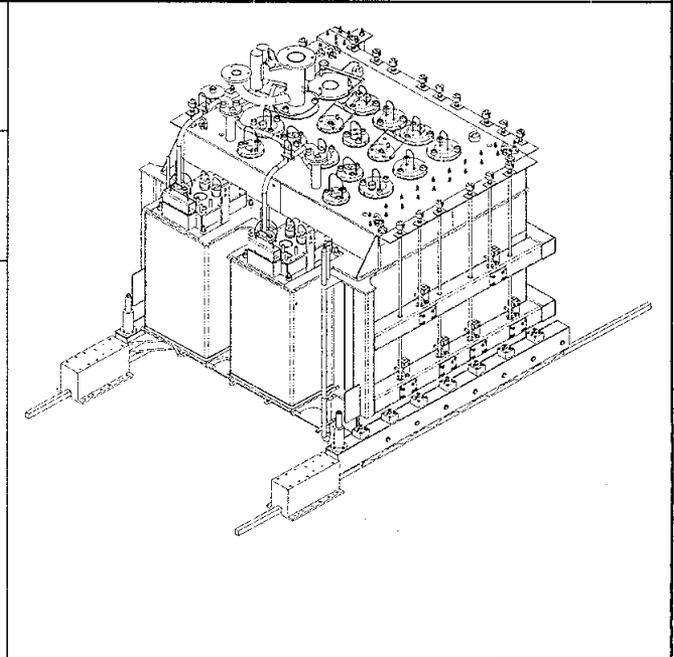


RPP-WTP	DATA SHEET HIGH LEVEL WASTE MELTER 2	Data Sheet Number	24590-HLW-MOD-HMP-P0002
		Plant Item Number	24590-HLW-ME-HMP-MLTR-00002
		This bound document contains a total of 1 sheet	

System: HMP
Project: RPP-WTP
Project No: 24590
Site: Hanford
Function: Convert blended HLW slurry and glass formers into glass and deliver glass to canisters
Reference Documents:
24590-HLW-3PS-AE00-TP001, Engineering Specification for High Level Waste Melters
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MECHANICAL					
	Units			Units	
Melter Design Life	years	5	Melter Base, Rail Center to Center Distance	inches	148.00
Maximum Outside Dimensions (L x W x H)	inches	172 x 164 x 146	Maximum Assembled Weight, Empty	pounds	174,000
Plant Elevation, top of rail	ft-in	2 - 11	Maximum Assembled Weight with Glass	pounds	198,000

PROCESS					
Design Glass Production	MT/D	3.0	Thermal load to cave from melter (idle and feed modes)	kW	35 max
Glass Tank Volume	ft ³	144	Melter Cooling Water	GPM	50 (nominal)
Glass Tank Surface Dimensions (L x W)	inches	60 x 96	Melter Cooling Water	Delta T (°F)	15 (nominal)
Max Operating Glass Depth	inches	44			
Design Glass Operating Temperature (max)	°F	2200			

ELECTRICAL	
Electrodes, kW	600 maximum
Start-up Heaters, kW	183 total maximum
Discharge Chamber, kW	56 max per chamber

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MAJOR COMPONENTS - Materials			
Melter Shell and Base	A500, A36, 304L, C276	Cooling Panels	C276, 316L
Melter and Discharge Chamber Lids	304L, Alloy 690	Discharge Chamber Trough and Dam	Alloy 690
Electrodes	Alloy 690	Film Cooler	Alloy 690

REPLACEABLE COMPONENTS					
	Number	Design Life (months)		Number	Design Life (months)
Feed Nozzle	2	60	Discharge Chamber Lid Assembly	2	30
Film Cooler	1	60	Discharge Chamber Vent Line	2	60
Air Lift Lance	2	60	Discharge Chamber Vent Insert	2	60
Level Probe	1	12	Discharge Chamber Thermowell	4	60
Plenum/Glass Pool Thermocouple	2	4	Discharge Chamber Thermocouple	4	12
Plenum/Glass Pool Thermowell	2	9	Electrode Thermocouple Assembly	3	12
Refractory Thermocouple Assy	2	12	Plenum View Camera	1	12
Bubblers	5	2	Start-up Heaters	5	3

NOTES
Note 1: Contents of this document are Dangerous Waste Permit affecting.
Note 2: Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

1/31/05	0	Issued for Permitting Use	Mark Hill	Lawrence Curtis	Walter Easton
Date	Rev	Reason for Revision	Prepared	Checked	Approved

ISSUED BY
RPPWTP PDC

