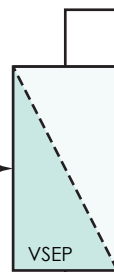


Diablo Canyon Sluice Wastewater

C-10F UF Membrane
One 36" Series i VSEP Unit
540 Sq Ft (50 m²)

Feed
16 gpm (3.6 m³/hr)
2.83E-04 µCi/ml Mn-54
2.27E-04 µCi/ml Co-57
1.46E-02 µCi/ml Co-58
9.76E-03 µCi/ml Co-60
2.38E-03 µCi/ml Zn-65
2.02E-04 µCi/ml Nb-95
2.60E-04 µCi/ml Ag-110



Permeate
15 gpm (3.5 m³/hr)
non-detect Mn-54
0.11E-04 µCi/ml Co-57
0.07E-02 µCi/ml Co-58
0.51E-03 µCi/ml Co-60
0.04E-03 µCi/ml Zn-65
non-detect Nb-95
non-detect Ag-110

Concentrate
<1 gpm (0.1 m³/hr)
283.00E-04 µCi/ml Mn-54
216.11E-04 µCi/ml Co-57
139.07E-02 µCi/ml Co-58
925.51E-03 µCi/ml Co-60
234.04E-03 µCi/ml Zn-65
202.00E-04 µCi/ml Nb-95
260.00E-04 µCi/ml Ag-110

95-99% Recovery, 40 GFD Flux
Ambient Temp, 175 psi (1225 kPa)

Process Objectives:

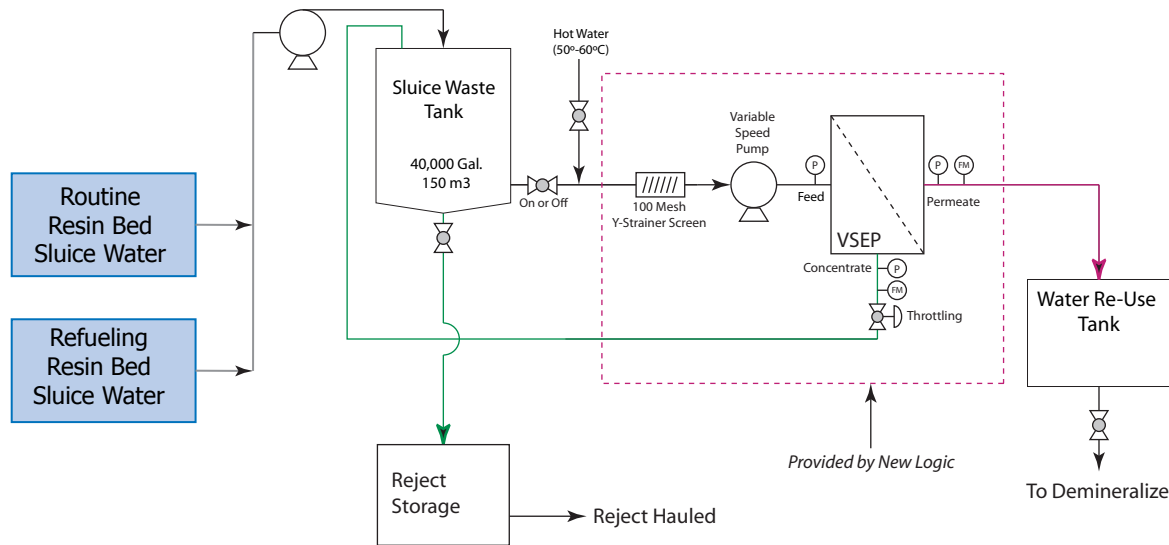
Remove sediment and radioactive particles
Produce filtrate suitable for reuse or discharge

VSEP Advantages:

Simplicity and easy to use
Small Footprint
Unattended operation
No secondary waste is generated

Operating Conditions:

System was periodically cleaned with hot water
Only a small amount of feed was used during this test
NF or RO membranes could produce better results
If this is done, water can be discharged as is



Contaminant	% Rejection
Manganese-54	99.9%
Cobalt-57	95.1%
Cobalt-58	95.2%
Cobalt-60	94.8%
Zinc-65	98.3%
Niobium-95	99.9%

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Diablo Canyon Power Plant Wastewater Block Diagram