

TANK FARM CONTAINMENT VOLUME CALCULATION

Storage included in these three areas: Fifteen Aboveground Steel Tanks

| Dimensions of Containment Area Segments: | | | | | | | |
|--|--------------|-------------|--------------|--------------|--------------|-----------|----------|
| AREAS | A | В | С | D | E | F | G |
| | | | | new | | | |
| | Outside Tank | Inside Poly | Tank Area in | concrete top | new concrete | Full | |
| | Farm | Tanks | Drivethrough | triangle | rectangle | Rectangle | Spillway |
| | Area A | Area B | Area C-O | Area C-1 | Area C-2 A | Area C-2B | Area C-3 |
| Length, ft | 35.0 | 33.67 | 60.7 | 2.5 | 2.5 | 3.0 | 2 |
| Width, ft | 47.0 | 17 | 16.5 | 2.5 | 13.5 | 16 | 0.5 |
| Effective Height, in | 20.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.0 |
| Elevation, Base, in | 4.00 | 0 | 0 | 0 | 0 | 0 | 4.00 |
| Volume (Gallons) | 20,509 | 8,564 | 14,974 | 47 | 505 | 718 | 9 |

| Area Displaced by Tanks | | | | | |
|-------------------------|------------------|-----------------|---------------|-------------------|--|
| Tank Number | Volume (Gallons) | Tank Shell | Cont. Section | Dimensions | Notes |
| 1 & 2 | 25,454 | steel | AREA A | 127" D x 480" H | |
| 3 | 25,600 | steel | AREA A | 132" D x 432" H | Tank Not Used |
| 4 | 28,800 | steel | AREA A | 120" D x 594" H | |
| 5&6 | 45,690 | steel | AREA A | 141" D x 720" H | Tank Not Used - bottom 6' of 60' height has no tank storage |
| 7 | 24,881 | steel | AREA C | 132" D x 432" H | |
| 8 & 9 | 19,430 | stainless steel | AREA C | 141" D x 360" H | |
| 10 & 11 | 25,260 | steel | AREA C | 126" D x 540" H | Tanks Not Used - bottom 6' of 45' height has no tank storage |
| 12 | 1,500 | poly | AREA B | 64"" D x 116" H | Relocating Tanks From Ecolube Tacoma Plant |
| 13 & 14 | 6,100 | poly | AREA B | 119" D x 140" H | Relocating Tank From Ecolube Tacoma Plant |

 0.5
 Tank

 20.0
 Tank 1

 4.00
 Tank 2

Largest Tank is Tank 4

Tank 4 Capacity, gal

| Idlik | yai/it | Displaceu, | yai |
|---------|--------|------------|-------------|
| Tank 1 | 636 | 1,061 | |
| Tank 2 | 636 | 1,061 | |
| Tank 3 | 731 | 1,219 | |
| Tank 4 | 606 | 1,010 | |
| Tank 5 | 0 | 0 | open bottom |
| Tank 6 | 0 | 0 | open bottom |
| Tank 7 | 691 | 1,382 | |
| Tank 8 | 648 | 1,295 | |
| Tank 9 | 648 | 1,295 | |
| Tank 10 | 0 | 0 | open bottom |
| Tank 11 | | 0 | open bottom |
| Tank 12 | 155 | 310 | |
| Tank 13 | 523 | 2,048 | |
| Tank 14 | 523 | 871 | |
| | | | |
| | | | |
| | Total | 11,553 | Gallons |

Estimated Displacement Volume Calculations

nal/ft

28,800

Displaced gal

=tanks not inspected by Mistras as they will not be in use containment capacity = Length(ft) x Width (ft) x h(in)/12(in/ft) x 7.4805 gal/ft3

Containment Capacity: 45,326 gallons Precipitation Allowance: 25-year, 24-hour amount*, in. 4 (Basis: NOAA 100yr-24hr Rainfall Event = 3.8") Precipitation Area ft2 1733 Precipitation Amount, gal 4,321 *Puyallup, WA (Western Regional Climate Center) Total Available Secondary Containment: Available Containment = Capacity - Precipitation - Displacement = 29,452 gal. "Excess capacity" = Available Containment - Largest Tank Capacity = 652 gal. at 100% of Largest Tank **TANKER CONTAINMENT VOLUME CALCULATION**

| Volume (gal) | 2,475 Gallons Holdup in Truck Loading Station |
|--------------|---|
| Depth (in) | 4 |
| Length (ft) | 72.2 |
| Width (ft) | 13.75 |

| City of Puyallup Development & Permitting Services ISSUED PERMIT | | |
|--|--------------|--|
| Building | Planning | |
| Engineering | Public Works | |
| Fire OF W | Traffic | |

