

Fermilab Communications with All-Weld regarding COUPP vessel.
Feb. 14, 2012

General Comments:

- 1) Conceptually All-Weld drawing #9833-1 is acceptable. See list of minor changes below.
- 2) Fermilab recommends ordering material as soon as convenient.
 - a. Fermilab requests a sample of each plate thickness ordered.
For example, a sample from the vessel flange, the shell, and the viewport flanges.
- 3) Before final fabrication approval, please send additional drawing views.
 - a. Viewport tolerances to the vessel centerline and top flange
 - b. Viewport o-ring tolerances
 - c. Dimensions of bolt hole patterns for the top flange, and internal tabs item #10

Requested drawing changes:

- 1) Short leg stand to be welded to the vessel
 - a. Items #6 and #5 to be welded to item #3
 - b. Weld gussets between item #3 and item#5 near the leg positions.
We have concerns about large ground motions in installed mine location.
- 2) On oval viewport, clock bolt pattern $\frac{1}{2}$ pattern (22.5 degrees) to allow more space between fastener heads.
- 3) Minimize material on bottom vessel plate as much as reasonable. For example increase the 2 degree angle and dish out internal surface until near the blind bolt holes.
- 4) Design Data notes: Change Service from water to propylene glycol.
100% pure propylene glycol is used inside the vessel.
- 5) Add two bolt holes in each leg pad for anchoring the feet. Holes should be a clearance hole for a 5/8" bolt or 21/32" diameter.