January 1, 2006

RE: Maintenance Repair Specification for Steel Trench Shields

For puncture repairs of the skin plate, place a replacement plate over the damaged area and weld all around. Do not cut into the original skin plate to make the replacement plate flush with the original skin. The plate used shall be at least as thick as the original skin, and shall extend beyond the damaged area by at least three inches on all sides.

The replacement plate specifications and welding procedure are as follows:

Material:

1/8" plate (TZ, T, E, 3L, 3M, 4L and MH boxes): ASTM A572 Grade 55 or A607 Grade 55, $F_y = 55,000$ psi

3/16" plate (N, K, LD, 4M, 6M, and 8M Shields): ASTM A572 Grade 55 or A607 Grade 55, $F_y = 55,000$ psi

1/4" plate (LHD, 6H, and 8H Shields): ASTM A572 Grade 55 or A607 Grade 55, $F_y = 55,000$ psi

Welding Procedure

1. All welding shall be performed according to the Structural Welding Code for Steel - AWS D1.1-90.

2. Unless otherwise noted, all welds shall have a thickness equal to the thickness of the thinner member joined.

3. 70,000 psi welding rod or wire shall be used to complete the welds.

4. Before welding, thoroughly clean the area to be welded with a wire brush or grinding wheel.

5. Unless otherwise noted, all welds on the outside part of the shield shall be welded all around, to prevent water and mud from entering the shield.

6. A certified welder shall perform all welding.

"The Trench Protection Specialists"