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Consulting Engineers and Scientists

PASTOR, BEHLING & WHEELER, LLC
2000 S. Mays, Suite 300
Round Rock, TX 78664

Tel (512) 671-3434
Fax (512) 671-3446

TECHNICAL MEMORANDUM

TO: Eric Pastor, P.E. – Pastor, Behling & Wheeler, LLC

FROM: Eric Matzner, P.G. – Pastor, Behling & Wheeler, LLC

DATE: September 28, 2005

RE: Gulfco Marine Maintenance Superfund Site – Site Visit on September 26, 2005 following Hurricane Rita

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On Monday, September 26, 2005, I conducted a site visit of the Gulfco Marine Maintenance Superfund Site to inspect the above-ground storage tank (AST) area for any indication of damage to the ASTs following Hurricane Rita, which made landfall on the upper Texas gulf coast on September 24, 2005. The inspection consisted of visually inspecting the ASTs for signs of damage or leaks and collecting organic vapor readings (with a MiniRae 2000 photoionization detector (PID)/organic vapor meter (OVM)) near the tanks. The weather conditions during this visit consisted of partly cloudy skies with a steady and somewhat stiff breeze out of the west/southwest; and with temperatures in the 90's.

Upon arrival at the Site, there were no indications that storm surge or high winds had occurred at the Site. Compared to the July 20, 2005 site visit, there did not appear to be any more or less debris at the Site. Comparing photographs taken during the July 20, 2005 site visit, ten 55-gallon drums located on the south end of the AST containment area appeared to be in the same position during this visit (Photo Nos. 1 and 2) with the drums still in the upright position. Using the OVM calibrated to 100 parts per million vapor (ppmv) isobutylene, I walked around each of the ASTs shown on Figure 1 to collect readings that could indicate a potential leak. With the exception of AST Nos. 14 and 16, OVM readings were collected around all sides of the tanks. About 1 foot of standing water was observed on the west side of AST Nos. 14 and 16 within the containment area, and the footing in the area presented a potential slip/trip/fall hazard. Therefore, OVM readings were not collected next to the tank on the west and north sides, but readings were collected on the north and east sides of AST Nos. 14 and 16. An OVM reading of the standing water in this area was collected with a reading the same as background (0.0 to 0.1 ppmv). OVM readings were generally collected within a foot of the ASTs at about 2 feet above the ground surface.

None of the tanks appeared to have any damage associated with the storm. A small leak was observed on the southwest section of AST No. 6 with a slow drip where the side of the tank had some signs of rust (Photo No. 3). This tank was identified as containing iron flakes and water (from LTE Site Characterization Report, Table 2, 1999). On the ground near the leak in AST No. 6, there was some sludge material observed. The OVM reading immediately above the material was 0.3 ppmv. A small leak was also noted on the northeast corner of the tank (Photo No. 4). There were no OVM readings greater than 0.0 ppmv around AST No. 6.

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AST No. 21 had a small leak noted at the clean-out flange on the southwest side of the tank (Photo No. 5). No organic vapors were detected near this tank with the OVM (OVM reading of 0.1 ppmv, checked background, also 0.1 ppmv). No other leaks were observed in the two other large ASTs in this area (AST Nos. 15 and 19). The OVM readings around the three tanks were less than 0.1 ppmv.

None of the eight ASTs (AST Nos. 10, 13, 14, 16, 17, 18, 22, and 23) (Figure 1) in the south containment area had any signs of damage or leaks. AST Nos. 13, 14, and 16 were in standing water (Photo No. 6) with no observable sheen on the water. As previously mentioned, there were no organic vapors detected from this standing water or from the tanks. AST Nos. 10, 17, 18, and 22 were in a dry portion of the containment area (Photo No. 7). No organic vapors were detected near these tanks. A slight odor was noted immediately downwind of AST No. 17 (Photo No. 8) with the OVM reading 0.3 ppmv (just above the background reading of 0.1 ppm). However, the odor and the OVM reading were not consistently detected. It appeared that the odor may have been from a port on top of AST No 17 that may allow some release of vapors when the fluids in the AST expand from the heat of the day. By this point of the site visit, the temperatures had risen well into the 90's.

PHOTO NO. 1 – Drums in southern end of AST containment area, looking south.

PHOTO NO. 2 - Drums in southern end of AST containment area, looking east.

PHOTO NO. 3 – View of AST No. 6, small leak on southwest portion of tank, looking northwest.

PHOTO NO. 4 – View of AST No. 6, small leak on northeast corner of tank, looking south.

PHOTO NO. 5 – View of AST Nos. 21 (left), 15 (center), and 19 (right), note small leak on AST No. 21, looking northeast.

PHOTO NO. 6 – View of AST Nos. 14 (left), 16 (center), and 13 (right), looking northeast.

PHOTO NO. 7 – View of AST Nos. 22 (left), 17 (left center), 18 (right center) and 10 (right), looking east.

PHOTO NO. 8 – View of AST No. 17, looking northeast.