

LUST: Leaky Underground Storage Tank

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The dictionary defines lust as: "a sexual craving, especially excessive or unrestrained. Any overwhelming desire or craving. Pleasure; delight; relish. To have an inordinate or obsessive desire, especially a sexual desire."

Unfortunately, in our industry, the term LUST has taken on a very different meaning. For many of us, LUST brings to mind the large gaping hole in the ground where our fuel tank once lived and the endless maze of EPA rules and regulations which are associated with it. Yes, as strange as it seems, the EPA has turned a work which is defined as "pleasure" or "delight" into an acronym that brings to mind fear and uncertainty.

If you are fortunate enough to work at a course that has updated tanks, then please don't waste your time reading this article. Instead, spend time with your family and friends, and enjoy the winter. If your course has already found its way through the great EPA maze and has received a closure letter on a LUST site, then I recommend that you have it framed and hang it on the wall next to your diploma and other certificates. As for me, I have come to realize that my quest for a coveted closure letter on the LUST site at Prestwick will take longer, cost more, and be more difficult to achieve than my certificate in turfgrass management.

I began researching the fuel tank issue at Prestwick in January

1997. It quickly became clear that the existing tank would not be in compliance with the regulations that go into effect December 1998. It was also determined that the existing tank was within the setback zone of a municipal well. This complicated everything. The IEPA classifies sites into three categories: No further action, low priority, and high priority. If a

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LUST site is located within the setback zone of a potable water supply well, then it is automatically classified as a high-priority site.

We decided to remove our old tank and switch to an above-ground tank which would be located outside the well setback zone. We figured that the best case scenario would be no contamination around the old tank (FAT CHANCE), and the worst case scenario would be that contamination would be found in the soil and ground water.

The new above ground tank was set up, permitted and operational by June 1997. We had no problems getting the new tank permitted. We decided to go with a vaulted tank made by Fuel Vault. By July 1997, all of our permits were in place, and we were ready to remove the old tank. During the tank removal, a representative from the States Fire Marshal Office was on hand. When the fire marshal walked over to check the excavation, we were right in the middle of pumping raw fuel out of the bottom of the hole. At this point, declaring that a release had occurred at the site was pretty much a no-brainer, and our best-case scenario of no contamination was no longer a reality.

We still had hope. Along with the removal of the tank, we planned to excavate the backfill material around the tank (approximately 75 cubic yards). Once the backfill was removed, maybe we would be back into clean soil. We removed the backfill around the tank plus a couple of extra truck loads. Soil samples were taken, but things didn't look promising. A handheld field monitor still showed high readings. The hole was lined with plastic and back-filled with clean stone. The lab results were not good. BETEX test on the soil samples revealed that all four walls of the excavation and the floor showed significant levels of contamination. It was official; Prestwick was going to be high-priority LUST site.

At this point, we reexamined all of our options. We decided to switch engineering firms. The firm

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which handled the tank removal and 20/45 day reports had done a good job, but they didn't have much experience handling high-priority sites. We switched to Huff and Huff Environmental Consultants out of LaGrange. Huff and Huff had a history of dealing with high-priority sites. They also had experience with sites that are located within well setback zones. Huff and Huff developed a site classification work plan and submitted it to the IEPA. Once the IEPA approved the plan, the site classification work plan was executed. The work plan included a series of soil borings and the installation of groundwater monitoring wells. The borings were used to determine the types of soils present at the site and the extent of the contaminated area. The monitoring wells were used to collect groundwater samples.

When the site investigation work was completed, a site classification completion report was submitted to the IEPA. In this report, Prestwick formally declared itself a high-priority LUST site. As soon as we had pulled the old tank and saw that there was fuel in the bottom of the hole, we knew Prestwick would be a high-priority site. So why go through the soil borings and well borings that left the asphalt around the maintenance building looking like Swiss cheese? Because the information gained during the site investigation was used to develop a Corrective Action Plan (CAP).

The CAP outlined to the IEPA what steps we would take to correct the LUST site. If the IEPA approved the CAP, then the corrective action work would be implemented. Once the work was completed, a corrective action completion report was submitted to the IEPA. If the IEPA

approved the completion report, then they would issue the coveted "no further action" letter.

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So where are we so far? Our site investigation revealed a contaminated area of approximately 2,500 cubic yards. Fifty percent

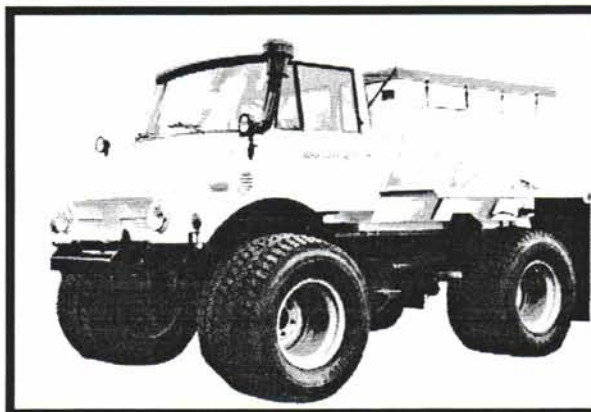
of this area was located underneath the maintenance building. All of the groundwater samples tested clean. (This was the only good news we had had so far.) Huff and Huff submitted a CAP to the IEPA. The CAP used computer modeling to show that given the soil types present at our site and even if the contamination did migrate, by the time it reached the well, it would be nondetectable. The CAP also provided past documentation of yearly water quality tests performed on the municipal well by the village.

None of these tests had shown any signs of contaminants. Our plan was to monitor the groundwater wells for a period that the IEPA determined was acceptable (most likely three years). We also agreed to keep an "engineered barrier" over the contaminated area to avoid contact with the contaminated soil.

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An engineered barrier is the IEPA's way of saying asphalt. So something good will come out of all of this; we will get to resurface the asphalt ground around the maintenance building.

Our CAP has been submitted to IEPA, and we are waiting to hear whether or not it will be approved. It may take up to six months to get approval. The IEPA may decide that groundwater monitoring is not adequate and that we need to perform active remediation of the site. Active remediation could require bio-remediation or vapor extraction—either of these systems would be extremely expensive.

After two years of researching and working on this issue, what have I learned? That it will probably take another three years before we can get a no further

action letter from the IEPA. What expert advice can I give on this topic? None! My nonexpert advise is: Hire an expert engineering firm. Keep your club officials aware of what the worst-case scenario could be (it may happen). Learn as much as you can about the prior history of the site. The tank which we removed had always tested tight. We believed that the contamination is largely due to a prior tank which was located in the same spot.

Remember that this thing isn't over until you have a no further action letter from the IEPA safely locked in your file cabinet. Take the time to do a survey of all the potable wells on and around your course. Find out what the setback zone is on each well. This information is important not only when dealing with fuel tanks but also in regards to location of rinse pads and pesticide storage areas. 

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the ROW team and our teammates from Argentina could speak English.

Here are a few interesting tidbits about some of the people I met. Pierre Ambresin from Switzerland is also a ski instructor. That would seem to be the norm, but not the fact that his golf course is open year round. Nick Webber from Northern Ireland had played on the European tour before becoming a car salesman; that wasn't until he realized where his real interests lay as a golf superintendent. Martin Sternberg of Sweden used to play junior golf with Jesper Parnivik. Finally, tipping for services is not the norm in some of the other countries, so trying to figure out a bill for a table of 14 was pretty exciting. 

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