

Two-Phase Assessment for Aging Fiberglass USTs

Combining Remote Video Inspection with Tank Deflection Testing for a clear view of what's happening inside your aging tanks.

Operators of older fueling sites with fiberglass USTs can sometimes begin to notice some odd problems occurring.

Things like: Increased complaining of slow flow resulting from filter clogging; the presence of fiberglass residue or debris being a telltale sign. Failed or erratic leak detection results. Water ingress into the tank or water and/or fuel into the interstitial space. Perhaps even fuel identified in monitoring wells.

What's happening?

There are several possibilities, but two which are increasingly common in tanks of this age, are degradation of the gel coat and tank interior – blistering, delamination, crazing or exposed fibers; as well as deflection and/or a flattening of the tank bottom. Such distortion of the tank shape can put stress on the fibers of the tank, causing delamination and cracks to occur in the fiberglass.

Why is it happening?

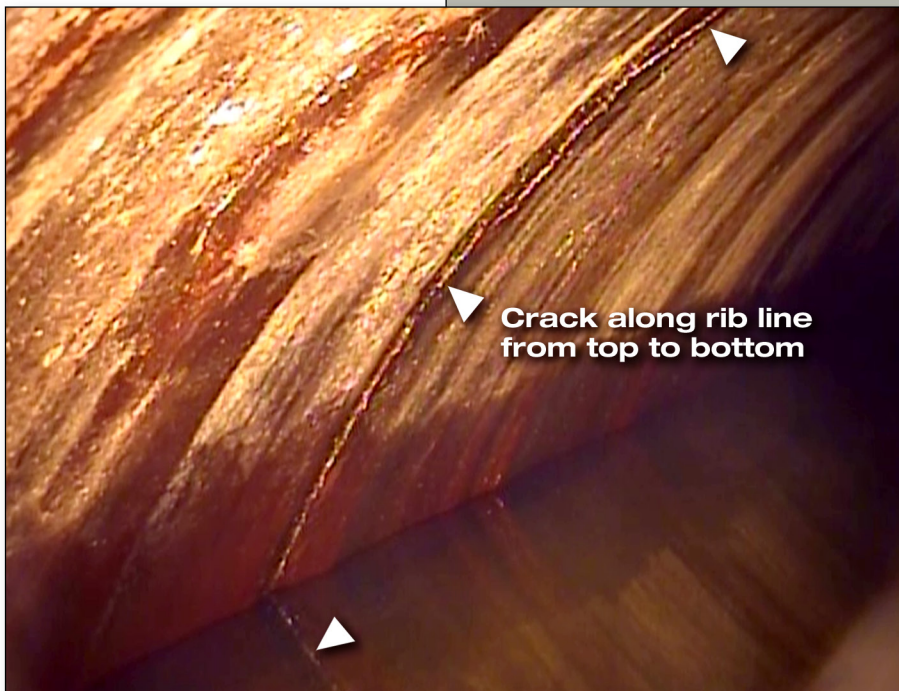
A leading theory is the possibility of product compatibility issues. Fuel formulations have changed over the years, adding substances like Ethanol and MTBE that were not used – and therefore not tested for compatibility with early fiberglass tanks. Local weather could also be a factor, especially in warmer regions of the country. Physical stresses on tanks could also simply be a function of poor installation, uneven backfill, settling, change in the water table, nearby construction or traffic activity. There are a number of possibilities.

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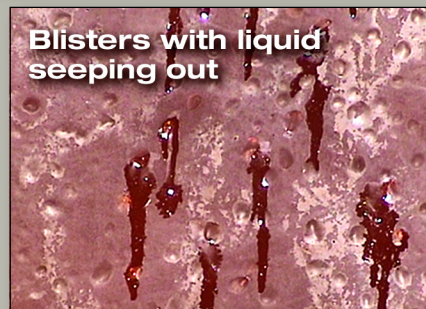
Blisters and cracks on side wall of tank



Crack along rib line from top to bottom



Blisters with liquid seeping out



Blisters and flaking



Continued...



**Tank deflection test
being performed**

What can be done about it?

If you hope to get a few more years out of your tanks, or seek to evaluate which tanks should be removed or repaired prior to a potential failure, a thorough assessment is the first step. And now, such an assessment is possible without the high cost and inconvenience of emptying the tanks and making them suitable for manned entry.

Tanknology has developed an assessment process involving a combination of Tank Deflection and Deformation Testing along with a TankCam® visual internal inspection. (TankCam is Patent Pending.)



**Blisters and cracks across bottom
of tank near striker plate**

Tanknology's Tank Deflection and Deformation Testing system employs a proprietary bottom flatness measurement device that verifies whether the roundness of the tank is within its specified tolerance. The device is operated from above ground, avoiding the need to remove all the fuel from the tank.

In conjunction with this system, Tanknology utilizes its proprietary **TankCam Inspection Service**, which provides a quick and cost-effective, yet very detailed, look inside the tank. (In fact, the interior images you see here were all captured with the TankCam.) Using state-of-the-art remote video technology, a Tanknology certified technician remotely inspects the tank, clearly identifying structural or lining problems such as cracks, blistering, de-lamination

or corrosion that is creating problems with fueling and potentially exposing you to a leak from the tank.

The inspection results in a digital video record, which details everything the technician saw in the inspection, helping you to make informed decisions about your UST program.

If you are a multi-site operator and would like to gain a better sense of the state of all your facilities or perhaps have a data base created which details what you have at each facility and a sense of the current conditions, talk to us about our Comprehensive Site Inspection Programs.

To learn more, call us today at 1-800-964-1250.



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