"Chronic oil leaks and small spills, their causes and the environmental hazards they create; Reactive Barrier Containment System helps to address problem of chronic oil leaks"

A catastrophic oil failure occurs when a sudden or unexpected breakdown of the transformer’s electrical system, oil storage system, or other primary containment system malfunctions, and oil is released into the surrounding area. More common are chronic oil leaks from corroded cooling radiator fins, welds, valves, fittings or through damaged gaskets, often frequent occurrences at transformer sites. If left unnoticed or simply ignored, they will lead to serious environmental contamination. A dripping leak at a rate 1 drop per second will add up to 13 US gal of oil per month. 1 drop per second will add up to 3 drums of oil per year.

According to the EPA, 1 gallon of oil will contaminate 1,000,000 gallons of water. “One quart of oil can pollute approximately 40,730 square feet of soil, making it non-productive for farming or plant growth for up to 100 years”. Although the transformer servicing industry has developed efficient and effective methods to repair these leaks, they are frequently unnoticed or ignored and quite often a considerable quantity of oil can be released to the environment.

The problem of chronic leaks is so common, that an entire industry was developed around chronic leaks repairs. Several companies offer leak repair technologies and service, others offer a more high tech approach and repair using fast setting epoxy compounds and various “polymer repair composite” kits, low temperature vulcanizing injection materials, teflon coated pipe plugs, installed by drill and tap techniques, a variety of custom designed and fabricated clamps and enclosures, injectable bolts and other mechanical fasteners. Then we have the standard secondary containment. The simple concept is an up-scaled bucket with all its limitations.

Take for example the concrete containment system. It collects oil spills and leaks but also collects rain water and snow melt. Concrete is naturally porous, prone to cracking and undergoes deterioration. Large concrete slabs require expansion joints. Gaps and cracks in concrete are permeable, and if these are significant, the concrete is not adequate to contain spilled oil. What to do with the rain water?

- Automatic sump systems (electricity supply, maintenance)
- Gravitational oil water separators
- Chemical oil water separators
- Chemical oil absorbers
- Oil stop vales, chemically activated plugs (frequent replacement, plugging)

A classical containment usually works great, until it starts raining. A new patented multilayered chemical barrier system, offers a novel approach to containment of chronic oil leaks and catastrophic oil spills. Albarrie’s innovative SorbWeb™Plus Secondary Oil Containment system is designed to significantly reduce capital outlays, provide environmental protection and drastically lessen the economic consequences of an oil spill.

The system and its layers are designed to allow water to move freely through its “Smart Barrier” without accumulating and pass all the way through the system and back into the native ground. This revolutionary multi-layer system of interlocking geotextiles filled with proprietary high efficiency polymeric immobilizers transforms into a rubber seal when exposed to hydrocarbons.

In the event of an equipment failure which could lead to an oil spill, the SorbWeb™Plus System and its SAM layer absorb the spilled oil, while the Oilmat congeals and seals the containment, preventing any oil from passing through.

The SorbWeb™ Plus system is optimized to reduce the economic costs involved in replacing the most important elements of the system. The extent of the remediation and associated cost is limited to the quantity of oil released, and the response time of the remediation. In addition to cost savings gained from using The SorbWeb™ Plus system as opposed to conventional containment methods, there are several other distinct advantages:

1 M. El-Fadel and R. Khoury, Strategies for vehicle waste-oil management: a case study; Resources, Conservation and Recycling, Volume 33, Issue 2, September 2001, Pages 75-91
No standing water to deal with
No mechanical moving parts
Cost efficient since it is virtually maintenance free
Allows for full access to equipment because the system is designed to be driven on.
Reduced installation costs as there is no need for concrete work, rebar or limitations
Flexible, easy to expand or repair.
No monitoring required.
Proven, effective 24/7 spill and leak protection.
Readily accommodates & accepts changes on the go during construction and installation
Robust engineered solution
Environmentally responsible
Offers fire quenching capabilities
Extended service life surpasses that of the equipment it serves.
Meets the EPA Spill Prevention Control and Countermeasures (SPCC) requirements per 40 CFR 112.7
Significantly reduces liability associated with oil spills

Truly... a remarkable leap forward in the proactive containment of hydrocarbons. www.sorbwebplus.com