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Spill clean ups from storage tank leaks and storage tank clean Outs with OSE II

The OSEI Corporation manufactures a first response bioremediation product Oil Spill Eater II that has been used to clean up leaks around storage tanks from valve breaks, line breaks and small holes in tanks, as well as for tank sludge clean outs. OSE II has been cleaning up oil/hydrocarbon based spills including heavy oils, sludge, drilling mud, tailings as well as refined product since 1989.

OSE II has cleaned up spills for the US department of energy for their strategic oil reserves, where a valve broke and leaked into the gravel around the tank. OSE II was used to remediate the spill and this prevented the gravel from being required, to be removed from around the tank. This saved alot of time money and effort to return the spill area to pre spill conditions.



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See full site determination and clean up at link <http://osei.us/wp-content/uploads/Department of Energy OSEII.pdf>

OSE II emulates nature's own process except OSE II speeds the process up to convert oil/sludge/hydrocarbons to CO₂ in a matter of days to weeks instead of decades if you did nothing at all. OSE II also reduces the odors and the flammability of hydrocarbons that pose problems for confined spaces, allowing access sooner than there would be capable of otherwise.

Emulating nature's process

OIL SPILL EATER II (OSE II) contains exact proportions of enzymes, bio surfactants, nutrients and other necessary constituents for complete life cycles and biodegradation.

When OSE II is added to a spill, it is not necessary to wait on the proximal bacteria to release enough enzymes or bio surfactants since they are already supplied by OSE II. Therefore, the minute you apply OSE II, there is sufficient biosurfactants to start the emulsification and solubilization process. This process generally takes just a minute or two, or possibly several more minutes depending on the consistency of the spill. As the bio surfactants do their job, the enzymes are attaching themselves to broken down hydrocarbon structures, forming digestive binding sites.

Note: Once this process has occurred, several important changes take effect:

1. The fire hazard has diminished.
2. The toxicity of the spill is rapidly diminished.
3. The odor or smell is almost non-existent.
4. The oil or spill will no longer adhere to anything.
5. The spill is caused to float, OSE II will prevent the oil from sinking.

If the spill has not reached a shoreline yet, but does so after application, it will not adhere to wildlife, sand, rock, wood, metal, or any vegetation.

If the spill has already attached itself, once application occurs, the spill will be lifted from sand, rock, wood, metal or vegetation and wildlife. OSE II is the perfect solution for cleaning up oiled wildlife and marine life because it works so swiftly and is non-toxic, causing the oil to just easily slough off once sprayed on. This causes less trauma for the animal being cleaned and a much faster and easier cleanup process.

The spill is detoxified to the point that indigenous bacteria (natural to a given environmental location) can now utilize the oil as a food source. This also diminishes toxicity to marine organisms, birds or wildlife.

OSE II causes the oil to float on the surface of the water, which reduces the impact to the sub-surface preventing secondary contamination of the water column or tertiary contamination on the floor of the body of water associated with the spill area. The spill being held on the surface will make it easy to monitor.

OSE II also has an extremely efficient nutrient system which is activated once you mix



UST contaminated soil clean up with OSE III
Anchorage Alaska



UST and Oil pit clean up with OSE II
By Hazco environmental Wylie Texas



the product with natural water--water native to the spill environment.

While the spill is being broken down and detoxified, the indigenous bacteria already living in the natural water used to mix OSE II starts rapidly colonizing or proliferating the growth of large numbers of indigenous bacteria.

Once the bacteria run out of the OSE II's readily available nutrients, they convert over to the only food source left: the detoxified oil spill. The spill is then digested to CO₂ and water. In some cases you can see bacteria growing on the spill; however, in a short period of time, the oil will be digested to CO₂ and water before your eyes on a contained spill. In laboratory tests, once you see the water in the test beaker or aquarium become **turbid**, you know it is only a matter of time before the contaminant is remediated to CO₂ and water.

OSE II is mixed with water that contains local bacteria and then is applied to the sludge inside the tank with some additional water, circulation pumps and aerators are turn on and in a short time the sludge has become broken down to CO₂ and water with inert carbon black and sediments that will make good top soil now.

The OSEI Corporation will need your site/tank information as well as the amount of oil/sludge/hydrocarbons in the tank or area outside the tank and develop a step by step procedure to clean up your tanks or contaminated area outside the tanks



Waurie Nigeria Refinery Utilizing OSE II

Whether the tanks is large or small, needs clean out or a clean up is needed outside the tank , OSE II can do the job with no secondary clean up or haul off needed, permanently removing the Oil/Fuel/hydrocarbons from the tank or the environment by converting them to CO₂ and water. Contact the OSEI Corporation for a clean up procedure for your clean up.

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