



Oil Spill Eater II used on another shoreline spill in

Estancia Philippines April 5, 2014



“A significant spill of heavy oil (bunker C type) occurred when Power Barge No. 103 ran aground at the shores of Estancia during the height of typhoon Haiyan. Between 21 and 23 November, environment experts from the Philippines Environmental Management Bureau visited the site of the oil spill together with a United Nations Disaster Assessment and Coordination (UNDAC) environment expert, and a

public health expert from the World Health Organization, in order to jointly undertake a preliminary assessment of the threats the spill poses to human health, livelihoods and the environment.”



Estancia shoreline vegetation, especially the sensitive mangroves showed distress from lingering oil in the environment

“Current estimates by the management of the power barge amount to around 800,000 litres of oil having leaked. As the ruptured tanks continue to leak and up to 600,000 litres of oil remain in the tanks, the amount of spill is increasing steadily. Urgent action is required to pump out the remaining oil or seal the holes in the tanks.”



“Most of the spilled oil has washed ashore, contaminating the coast and mangroves up to 10 kilometres downstream. The containment booms deployed are not sufficient to effectively contain all of the free phase oil in the water. The free phase oil has been blown ashore by southeastern winds so far. A change of wind direction or a tropical depression could further complicate the containment of the free phase oil. A faster, mechanical clean-up process with oil skimmers is urgently required.”

The following pictures were taken on April 6, 2014 with the OSEI associate Bill Cutler the Mayor Mr. Rene Cordero and Vice Mayor Mr. Rodoel Aclaro, the city engineer Andrus Ravena, a second city engineer Mr. Dexil, Jvel Sabado with DRRMO, the Philippines Department of Disaster Risk Reduction & Management Office of Bacolod city, as well as a large number of prominent citizens of Estancia. The pictures show the spill was still adversely effecting the environment, as well as the smell still being quite strong.



The spill was 4 months old you could still see and smell the oil



The Estancia shoreline coated with oil 4 months after the spill



OSEI Associates discussing with Estancia City engineers where start the clean up



Heavy oil coating the rocks 4 months after the spill



OSEI associates discussing where to set up equipment to apply OSE II



When small holes were dug into the sand you could see oil



Rocks were turned over to show the extent of the oiling of the beaches 4 months after the spill



The holes dug into the beach would fill up with oil quickly



The sandy beach could also show oil just under the surface of sand by scratching off the shallow top layer

The clean up of the beach area in Estancia LLoilo Province Philippines with OSE II was performed on April 5, 2014. The tank where OSE II was mixed with water collected from the ocean due to the fact the ocean has indigenous bacteria that OSE II will enhance to digest the oil once the biosurfactants and enzymes in OSE II have broken down or detoxified the oil. Minimal equipment can be used to clean up spills with OSE II, or for large scale operations larger pumps and equipment can be utilized to cover large areas quickly.



OSEI associate collecting Natural sea-water to mix with OSE II



OSE II being added to the natural sea water in the mixing tank



OSE II and water mixed, and the the pumping set up is turned on



OSE II was added to the high point of where the oil reached onto the Estancia shoreline



After rinsing some rocks where OSE II was applied the rocks were free of oil even though stains from the carbon could be seen however the oil was gone



Moving the application of OSE II to the sandy beach



As soon as OSE II hit the sand The oil started coming up to the Surface, and became very thin



The application of OSE II went from left to right moving toward the water



The adhesion properties of the oil was diminished quickly therefore the oil would not adhere to the sand

After rinsing some rocks there was still some stains from the carbon black, but upon touching or rubbing ones hand the oil was gone, as well as the odor.



Mayor Cordero reached for his cell phone and called Governor Defensor mid way thru the OSE II application, and stated that “this stuff works and you need to take a look at it. The Governor indicated that he would look into OSE II and take action.”



OSE II once the application reached the waters edge was applied to oil under the water



The oil on the seabed lifted to the surface of the water where it will convert to CO2 and water



OSE II was also applied to the open water making sure all the oil was addressed



OSE II being sprayed onto the hand of the responder, with No adverse affects



After application of OSE II the oil became thin, broken down and non-toxic



The green algae is from eutrophication from the lingering oil in the environment

The lingering oil from typhoon Haiyan oil spill on the beaches and rocks, on the open water and on the seabed under the water, was broken down lifted up or detoxified, and in a short time will be converted to CO2 and water. OSE II emulates mother natures own process, however OSE II speeds this process up to remediate oil in a few days to weeks where mother nature may take decades.

This spill had been here for 4 months and even though the original contractor tried to wash away the oil with water it had no effect on the oil. The oil was choking the oxygen from the beach sand as the numerous algae blooms were showing. The oil under the sand could linger well past several decades since it is not exposed to sun and natural elements.

OSE II when applied to oil and fuels rapidly breaks down the molecular structure of the hydrocarbons, which in turn detoxifies the oil/fuel so it can be used as a food source by indigenous (local) bacteria, which are rapidly grown through the nutrients in OSE II. The adhesion of the oil is then diminished, as well as the odor, and as you can see OSE II causes the oil to float to the surface of the sand and water. The enzymes in OSE II form protein binding sites, to induce the local bacteria to use the oil as a food source, converting the oil/fuel to a safe end point of CO2 and water.

OSE II has been tested by several governments for toxicity on fresh and salt water species and has undergone eco toxicity tests, each time OSE II has proven to be non toxic. OSE II as you can see from the responder running his hands under the OSE II stream in the picture above, is safe for humans as well.

OSE II has been used globally since 1989, and this clean up like so many before it, shows how safe and effective OSE II is, this coupled with the fact OSE II is very economical to use makes OSE II a great oil/fuel spill clean up product, that actually removes spills from the environment with out creating any secondary clean up or costs with no toxicity to marine species, vegetation or humans

Steven Pedigo

