

Twelve Years of Ecotoxicologic Monitoring in the Disposal Area of an Oil Terminal in Northern Coast of São Paulo, Brazil

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Petrobras is one of the largest oil companies in the world. The largest marine terminal of Petrobras is in São Sebastião Channel, North coast of São Paulo State. This terminal moves 130.000 m³ of oil per day and since 1998 disposes its effluent in the channel through marine outfall. Since that time a monitoring program, requested by the environmental agency is being carried out. The present study aims to report results of ecotoxicological assays conducted in the period between 1998 and 2010 as part of the evaluated parameters in São Sebastião Channel monitoring program after the installation of the submarine outfall of Petrobras Waterway Terminal. This monitoring program began in 1998 and is still in progress. The toxicity tests were applied to the evaluation of the water toxicity (surface and bottom) and of the sediment (whole sediment and pore water). The chronic toxicity assay based on the embryolarval development of the sea urchin *Lytechinus variegatus* was applied to the liquid samples. Whole sediment samples were tested by the acute assay using the amphipod *Tiburonella viscana*. In the period between 1998 and 2006, the sampling points were distributed along the entire channel length. In the period between 2007 and 2010 the sampling schedule was redefined, by the environmental agency solicitation. The sampling stations were distributed in a radius of 1 km around the outfall opening. Results point out the increase in the sediment and water toxicity both in surface and bottom water, but mainly in the pore water. The conclusion obtained through the data is that the effluent has been affecting the environment, but due to the large hidrodynamism the pollutant probably has been carried out to other places. We suggest a monitoring program in a more comprehensive sampling area.

Keywords: Oil Terminal; Effluent; Monitoring Program; Toxicity Tests