

Shoreline Washing Agents for Oil Spill Response

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Abstract - Spilled oil in oceans frequently reaches the shoreline where active cleanup strategies may become necessary if the rates of natural weathering and attenuation of the stranded oil are considered inadequate. The application of shoreline washing agents is an operational technique that enhances the separation and removal of oil that is adhered to solid surfaces. This presentation includes a comprehensive introduction of the current and emerging technologies to treat oiled shorelines using washing agents. The discussion provides a brief description of the characteristics of shoreline oiling and the available techniques for shoreline treatment or cleanup. It summarizes the basics of surface washing, toxicity issues, and state-of-the-art efforts to date on oil removal using washing agents at both laboratory and field scales. The recent development of green washing agents for shoreline treatment is further presented. Finally, the recommendations for future research on the shoreline washing agents are introduced.