

Abstract

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A Study of the Behavior of Oil Spill from an offshore Rig in Red Sea Region

Oil spills due to various industries including commercial shipping & offshore platforms damage the near coastal zones, ecological life, & tourism areas. Hence, it is required in many countries to develop oil spill contingency plans in compliance with the Oil Pollution Act of 1990 (OPA) and/or the Offshore Continental Shelf Lands Act (OCSLA). Implementation of the International Convention on Oil Pollution Preparedness, Response & Co-operation (OPRC) Convention & related issues are important elements of the IMO's Integrated Technical Co-operation Programme. The risk assessment/management, development of national contingency plans, environmental sensitivity index mapping, establishment of regional & sub-regional preparedness & response systems (agreements, plans & centers) & advice on dealing with marine pollution incidents are requested. This paper presents simulation results using a simulation model for studying the behavior of oil spill from an offshore rig. The model possesses a general structure that can accommodate most of the remaining weathering processes & a number of hypothetical scenarios are simulated for Red Sea region. The results show that using simulation can improve the oil spill contingency plans to support a risk-based decision which prevents future fatal accidents.