

Waste materials are either solid or liquid remains or by-products of materials that are produced out of human activities that are no longer useful to the initial owner or producer. These materials have detrimental effects on human health, the ecosystem; environment, aesthetics and can compromise maritime safety and affect the shipping industry. The activities at the Port, both offshore operations and onboard ships generate large amounts of wastes that require to be properly managed to minimize the inherent hazards and comply with the legal requirements, standards and guidelines. The aim of this research was to determine the waste generation from both onboard ships and offshore operational activities. It also sought to establish the waste management capacities of Kenya Ports Authority (KPA) and assess its conformity to regulations, requirements and standards. This research was conducted at the Port of Mombasa which is located at S 4° 3.1' and E39° 36.8' on the east coast of Africa between the months of November 2006 to May 2007. Data was collected through interviews, questionnaires, actual characterization and measurement of the waste streams. Photography was used for illustration purposes, while observation and participation were used to observe the actual waste management practices. One way ANOVA was used to analyze the variation of means of the waste categories, while Z score was used to test the difference of waste categories at collection centers. Chi-square was used to test for conformity to the required standards. The study revealed that KPA generates different categories of waste ($F(10, 77) = 13.85, P < 0.05$) with significant difference among the total means of waste categories ($Z = -0.439, P < 0.05$) and a difference in total means of the waste generated at different collection centers ($Z = -0.795, P < 0.05$). The highest category of waste generated is paper at 17.09%, followed by wood waste 14.65% and plastics at 14.54% while the lowest was miscellaneous and tin at 2.55% and 3.91% respectively. The highest generation is at collection centre number five at 20.6%. The study further revealed that there was no segregation at source, storage was in improvised containers such as open top steel drums, troughs and at many collection centers waste was dumped on the open ground. The reusable and recyclable waste materials if salvaged can have an economic value of ksh. 95,000 per month, which is about one third of the current monthly cost of waste management at the port that stands at ksh.300, 000. Waste collection was contracted out to private contractors who have only two 4 tonne open top vehicles for transportation of waste which are of small capacities, inadequate and not refuse purpose. The refuse was dumped indiscriminately at a disposal site managed by the municipal council of Mombasa situated 20 km from the port and at times along the road side on the way to the dumping site. The study revealed that, the current management practices do not conform to the required standards ($\chi^2 = 23.98 P < 0.05$). The findings of this study will enable KPA develop a waste management plan that will ensure waste minimization, segregation at source, re-use, recycle and appropriate transportation and disposal options in conformity with the legal requirements and standards