Shipyards Waste and Sustainable Management in Greece. Case study

Papamanolis Georgios, Giannakopoulos Evangelos and Kalavrouziotis Ioannis
School of Science and Technology, Hellenic Open University, Tsamadou 13-15 & Saint Andrea, 262 22 Patras, Greece.

Abstract
The shipbuilding industry and the several building or repair operations carried out in it, are reported as amongst the common sources of waste, which is not possible to extinguish but can only be eliminated through the adoption of the appropriate waste management techniques [1]. This need is enhanced further from the lack of an International regime [2] (with mandatory law requirements) specifying Shipyard operations, prevention actions and waste management techniques, and is immense in countries with a narrower regulatory establishment on Shipyard waste management, like Greece, which adopts the general E.U. Law requirements but does not offer a detailed regulatory basis concerning individual shipyard or industrial operations and the management of resulting wastes. This work, analyzes the several sources of waste generated from shipbuilding activities [3], and investigates the extent that these wastes can be managed in a sustained manner [4], for the case of “Neorion Syros” Shipyard (NSS hereafter) in Greece. The results show that, NSS undertakes almost all possible shipbuilding or repair operations (sandblastings, paintings, use of solvents etc.) apart from the dissolution of ships, thereby producing a broad range of solid and liquid wastes (VOCs, TBT etc.) and air emissions [5] that spread across Syros [6] and heavily pollute the island and the sea, especially under specific weather conditions, making the need for the elimination of pollution related with the operation of the Shipyard, an area of intense interest and importance.

Key words: Treatment Shipyards Wastes, sustainable waste management, pollution, shipbuilding repair industry.

References