

European Commission Directorate General
Environment

Ship Dismantling and Pre- cleaning of Ships

Final report

June 2007

Report no. 64622-02-1
Issue no. 2
Date of issue 28h June 2007

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Table 2 Facilities, capacities and certification

Country	Facility	Annual capacity LDT	Certification/ authorization	Method
Gent, Belgium	Van Heyghen Recycling S.A.	60,000	National authority	Pier breaking and slipway
s-Gravendeel, The Netherlands	Scheepssloperij Nederland B.V.	30,000	National authority	Slipway
Naples, Italy	Simont S.p.a	80,000	National authority	Pier breaking
Grenaa, Denmark	Fornaes ApS	25,000 – 30,000	National authority	Pier breaking
Gdansk, Poland	Gdansk shipyard.	Not available	National authority	Not available
Aliaga, Turkey	Leyal Ship Dismantling & Recycling	100,000	ISO 9001, ISO 14001 and OHSAS 18001	Landing
Jiangyin, China	Jiangyin Changjiang Xiagang Ship breaking Company	300,000*	P&O Nedlloyd (now Maersk) partner ISO14001 and OHSAS 18001	Pier breaking
Jiangmen, China	Zhongxin Shipbreaking Steel & Iron company Ltd, Jiang Men City, Guangdong Province	300,000	ISO 14001 OHSAS 18001	Pier breaking
Jiangmen, China	Xinhui Shuangshui Shipbreaking & Steel. Co. Ltd	60,000	ISO 14001 OHSAS 18001	Pier breaking
Jiangsu, China	Xin Rong Recycling & Logistics Co. Ltd (formerly Jiangsu Changrong Steel Co.)	>100,000	ISO 14001 OHSAS 18001	Pier and dock breaking
China	Guangzhou Panyu Ship Breaking & Steel Rolling Co**	40,000	ISO 14001 OHSAS 18001	Pier breaking
It is currently discussed in IMO whether beaching can be accepted as safe and environmentally sound ship recycling. Beaching is not considered compliant with the relevant technical guidelines of the Basel Convention which require "impermeable floors wherever hazardous materials and wastes are handled". In Alang, India, 32 yards have received ISO 14001 and OHSAS 18001 certifications.				

* According to info from yard under upgrade to 1,000,000 LDT/year

** Based on www.nmri.go.jp/lca/lca_hp/pdf/36.pdf and BIMCO (2007)

A number of facilities are not included in the list because their capacities are at present low or because they are not open to EU ships (US Facilities). The facilities with limited annual capacity could constitute a future capacity in case of upgrade and include:

- Klapeidos Laivu Remontas, Kuusakoski, and Subare, all Klaipeda, Lithuania
- Liepajas Metalurgs, Liepaja, Latvia
- Kuusakoski, Riga, Latvia
- HKS Metals 's Gravendeel, The Netherlands

4.2 Facilities in EU candidate countries Turkey and Croatia and EFTA country Norway

The shipbreaking facilities in Aliaga, Turkey

There are some 25 plots for shipbreaking in Aliaga that are operative today. The procedure can be characterised as slipway recycling: there is a considerable draught near the coast and even large vessels of 10,000 LDT and more are run ashore. The vessel is cut from the bow and sections of 600-800 tonnes are cut and pulled onto the cutting area by wrenches. Smaller sections and equipment are removed by cranes. Vehicles and cranes can operate close to the vessel on the shore or on barges.

The plots are situated on Government property previously leased for only five years at a time. In 2006 the lease terms were changed and leases now runs for 20 years. The longer perspective is considered by the Turkish Shipbreaking Association (TSA) to increase the willingness with yard owners to invest in safety, health and environmental improvements of the yards.

The yards were the topic of a critical Greenpeace report (Greenpeace 2002), and since then a hazardous waste programme has been initiated by the TSA, who hired a manager with hazardous waste management responsibilities. This has led to improved procedures in yards and the programme also increased the availability of facilities for hazardous waste: a mobile asbestos decontamination unit, an organised oily waste collection, and hazardous waste reception facilities are now available to the yards. Some yards (e.g. Cemas) have now large concrete paved areas for the cutting procedures; others have invested in their own asbestos unit and oil pumping and storage facilities not to mention obtaining ISO 9001, ISO 14001 and OHSAS 18001 certification (Leyal Ship Dismantling & Recycling)²⁴. The Simsekler yard was chosen by both French and Dutch authorities for the proposed recycling of the *Clemenceau* and the *Otapan*, respectively.

Compared to the situation described in the Greenpeace report in 2002, the improvements in several yards in Aliaga are significant. A compliance with the requirements of the Basel Convention Guideline on Ship Dismantling is not a far fetched possibility (Neser et al 2006), although the acceptance of wet recycling is a prerequisite.

The full annual capacity has previously been given as 600,000 LDT with 800-1200 employees (~500 LDT/man year), but recent estimates by one of the recycling yards brings the number up to 1,000,000 LDT/year (Ayvatoglu 2006). Turkey's Shipbreaking Regulation came into force in March 2004 and in early 2007 a re-permitting exercise was carried out for the active yards. Four yards were awarded permits, whereas the remaining yards were granted conditional permits to be renewed after reconsideration.

²⁴ Impressions from a visit to Aliaga by Frank Stuer-Lauridsen and Danish EPA in April 2006 (Note to the Danish EPA: Shipbreaking in Aliaga, Turkey)