

Shipbuilding & Ship Repair Integrating EMS with Lean Manufacturing Training

As part of our work with the Shipbuilding and Repair sector, EPA worked with shipbuilders to analyze Lean Productions Methods and determine if and how a company could integrate them with environmental management systems (EMS). Since 2002, EPA has been working with the Shipbuilding and Ship Repair industry on EMSs and created an implementation guide specifically for the sector. EMSs are based on a plan-do-check-act system leading to continual environmental improvement. The Sector has also embraced Lean Manufacturing, which is also based on a plan-do-check-act system leading to eliminating waste while delivering quality products at the least cost to the manufacturer and customers. In the U.S., lean implementation began in the 1980s in the automotive and aerospace sectors and is currently spreading rapidly into other manufacturing and service sectors.

The report entitled, "Findings and Recommendations on Lean Production and Environmental Management Systems in the Shipbuilding and Ship Repair Sector," was completed in October 2004. The report determines the relationship between EMS and Lean Manufacturing - with the idea being that most shipyards implementing Lean Manufacturing would be more inclined to adopt an EMS if it could be linked with Lean Production. Further, the report identifies commonalities between EMS and Lean, and contains recommendations for joint activities and tools the EPA and the industry can undertake to help shipyards integrate EMS and Lean Manufacturing to improve environmental performance. These Findings and Recommendations can be applied broadly to other sectors using Lean methods and EMS.

Our next step on this project is to provide training to shipyards on integrating Lean and EMS. EPA has proposed to offer a 4 hour comprehensive Lean-EMS Integration Workshop to be conducted by their EMS expert contractors, Ross & Associates, at the June 2005 NSRP SP-1 Panel meeting in Newport News, VA. If you have any questions or comments concerning the upcoming Lean-EMS Integration Workshop, you may contact EPA's Shipyard Sector Strategies contact, Shana Harbour at 202-566-2959.