

Evaluation of Environmental Management System Implementation of Construction Projects in Turkey

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Abstract : Construction industry is in a rapid development for many years around the world and especially in Turkey. In the last three years sector has 10% growth and provides significant support on Turkey's national economy. Many construction projects are on-going at urban and rural areas of Turkey which have substantial environmental impacts. Environmental impacts during construction phase are quite diversified and widespread. Environmental impacts of construction industry cannot be inspected properly in all cases and negative impacts may occur frequently in many projects in Turkey. In this study, implementation of ISO 14001 Environmental Management System (EMS) in construction plants is evaluated. In the beginning stage quality management systems generally reviewed and ISO 14001 EMS is selected for implementation. Standard requirements are examined first and implementation of every standard requirement is elaborated for the selected construction plant in the following stage. Key issues and common problems, gained benefits by execution of this type of international EMS standard are examined. As can be seen in sample projects, construction projects are being completed very fast and contractors are working in a highly competitive environment with low profit ratios in our country and mostly qualified work force cannot be accessible. Addition to this there are deficits on waste handling and environmental infrastructure. Besides construction companies which have substantial investments on EMSs can be faced with difficulties on competitiveness in domestic market, however professional Turkish contractors which implementing managements systems in larger scale at international projects are gaining successful results. Also the concept of 'construction project management' which is being implemented in successful projects worldwide cannot be implemented except larger projects in Turkey. In case of nonexistence of main management system (quality) implementation of EMSs cannot be managed. Despite all constraints, EMSs that will be implemented in this industry with commitment of top managements and demand of customers will be an enabling, facilitating tool to determine environmental aspects and impacts of construction sites, will provide higher compliance levels for environmental legislation, to establish best available methods for operational control on waste management, chemicals management etc. and to plan monitoring and measurement, to prioritize environmental aspects for investment schedules and waste management.

Keywords : environmental management system, construction projects, ISO 14001, quality

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