INTEGRATED MANAGEMENT SYSTEMS FOR ENHANCING PROJECT QUALITY, SAFETY AND ENVIRONMENT

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Abstract

Over the last thirty years the construction industry has fully embedded quality management systems (QMS) within construction project management. In recent years, environmental regulation and health and safety legislation have introduced additional dedicated management requirements - environmental management systems (EMS) and health and safety management systems (H&SMS). It has been suggested that management systems, in particular those used for quality assurance, have been somewhat bureaucratic and of questionable value to construction project management. The need exists for enhanced systems that enable a contracting organisation to control the key management functions of quality, together with environment and safety with maximum effectiveness and minimum bureaucracy. The findings presented in this paper show that a reconfigured approach could bring together these individual and often separate functions within an Integrated Management System (IMS). The concept of IMS is now an emerging management approach within construction following the lead by manufacturing and UK contractors are already considering its application. This is supported by certification bodies who have introduced the integrated management system assessment or IMSA. A number of UK contracting organisations are at the forefront of both national and international IMS developments. Based on primary questionnaire and interview survey data from UK contracting organisations, this paper examines the purpose, characteristics, properties and development framework of a single system approach, or the IMS for quality, safety and environment, and considers its application by contracting organisations.

Keywords

Construction management, environment, integrated management systems (IMS), quality, safety, systems, standards.

INTRODUCTION

Traditionally, quality, environment and safety have been managed independently within many contracting organisations. The separation of management functions and systems has occurred within the construction processes quite understandably, because the legislation and standards influencing each have evolved at different times (Griffith 2000). Throughout the 1990's, ISO 9000 quality systems certification had been, in the main, considered sufficient to illustrate a contractor's commitment to deliver a product or service (ISO 1994). However, the need to comply with the introduction of new standards, increasingly stringent legislation and greater business and social demands means that contractors must also demonstrate improved environmental performance and better health and safety management. The ISO 9000 has been joined in recent years by the ISO 14001, the international specification for environmental management systems (EMS), and the BSI-OHSAS 18001, the specification for occupational health and safety management systems (ISO 1996; BSI 1999).