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Chapter XIX

The Integration of Safety, Environmental and Quality Management Systems

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Abstract

This chapter will show how the demands on safety, environmental and quality management systems and their implementation into IT solutions have changed over the years and how such systems may appear in the future. Tangible business processes from the areas of occupational health and safety and environmental protection are described and a solution shown as to how these can be dealt with in a task-related way. Furthermore, there will be shown the connection between these business processes and the relevant legislation and the special benefits pertaining to legal security. Following this we describe how the linking of IT systems mentioned with scientific management systems with the primary processes of the company

can be arranged. We also provide a look at the benefits arising from using such systems. The chapter concludes with a critical look at the future distribution and use of such integrated, process-oriented and legally based management systems. This chapter is particularly directed to companies that have set the carrying out of the material-related legal requirements and cost reduction through thought-out product use as a corporate objective. The concept of a networked corporate occupational health and safety and environmental protection information system and its implementation as a standard product will be introduced. Core components include basic data maintenance, modules for supporting decentralised specialised tasks and an efficient reporting system used at all locations and linked to an intranet.

Development of Corporate Environmental Information Systems in the Last 10 Years

At the beginning of the nineties IT began its entry into the workplaces of the safety and environmental protection departments.

In these departments existing tasks such as the saving of dangerous substance-related data in database systems, the administering of directives of safety-relevant systems and the handling and organisation of the drop currents were depicted and supported with electronic data processing systems.

The multitude of solutions that consequently arose on the market resulted in increased pressure on the program users to create integrated systems to reduce the high spending on parallel data entry and data maintenance and to do away with the irritation caused by data inconsistencies.

The demands on the IT environment also grew however with the arrival of integrated systems with, for instance, more demands on the hardware platform utilised and the operating and administration systems as well as on the training of personnel to use these systems.

Manufacturer expenditure increased almost exponentially in order to meet the existing demands in all areas of application with a single management system and to continue with this in accordance with the legal requirements. Around the end of the nineties it became clear that the amount spent on obtaining the operational data that were necessary for operating such systems was too high and that it was necessary to connect these systems with scientific management systems as well as with process-controlling systems.