Becoming a World-Class HSE Organization

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Abstract
In order for an organization to be recognized as a world-class Health, Safety and Environmental (HSE) organization certain elements and resources need to be in place. This applies whether the organization is an engineering or an operating company. The most important element is qualified personnel in the areas where HSE needs to be developed and maintained. It may not be necessary to have experts in all the areas where excellence is desired, but an in-house person that fully understands and has had hands-on experience in these areas is required. That person will hire, permanently or temporarily, the experts that will execute the pertinent part of the job. As such, he/she should be able to define the needs, the scope and the extent of the work, plan and execute the plan and assess the quality of the HSE work as it is being implemented. Knowledge and understanding of all applicable regulations, codes and standards is essential. These should serve as a basis and starting point and should be interpreted to enhance the company’s HSE and not narrowly to satisfy minimum requirements.

The areas that are under the scope of HSE are the health, safety and risk, and environmental domains. For matters related to health an understanding of the impact of chemicals on people is needed and knowledge of the available resources to assess this impact (for example, Safety Data Sheets). The safety and risk domain (in which process safety resides) may be the most extensive in terms the analyses and information required. These include hazard identification (HAZID), consequence analyses, facility siting, fire protection design, process hazards analyses (PHAs), and operating knowhow. Processes to maintain the safety long-term such as management of change (MOC) and development of operating procedures, among others, are required. In the environmental domain familiarity with the effects of the process on the air, water, and noise, and how to minimize them, is essential.

This paper will address in detail the HSE needs of the organization, for both engineering and operating companies, and the levels of expertise and experience that are necessary to reach in order to stand out.