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## Sustainable Operations and Process Safety Management Systems: Implications for the Offshore **Oil Industry and Petrobras**

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## Abstract

Recently, new processing dynamics of potentially dangerous products has increased flows, pressures, temperatures and other variables used in the process industries. With these new processing dynamics, the risk of major accidents around the world also increased. Due to the occurrence of major accidents, laws and regulations have been created to try to prevent this type of events, aiming to protect people, assets, the environment and corporate image. Management systems for process safety are used as a series of blocking barriers to prevent the development of major accidents. For the oil industry, there are some recommended practices from multiples institutes and government agencies. By employing a descriptive case study and documental analysis, the present study aims to compare the existing Process Safety Management Systems with the Health, Safety and Environment management system of a world leader energy company. More specifically, this research maps, compares and verifies which elements of these established management systems have been incorporated to the organization's HSE management system and provides a series of recommendations for practice and policy as well as contributions to the literature.

Keywords: Process Safety Management; Major Accidents; Loss Prevention, Environment Protection.