



Shell's Experience Implementing a Manual of Permitted Operations

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ABSTRACT

Shell Upstream Americas has developed and implemented a comprehensive risk management tool to provide standardized and consistent direction and guidance for their onshore and offshore operations personnel. This tool can be applied when faced with conditions or conflicts in activities or operations that could threaten safe operations. The Manual of Permitted Operations (MOPO) includes a set of matrix charts which uses a “traffic-light” coded approach to indicate when activities can proceed unrestricted, can proceed with caution, or are prohibited. These activities and operations include wells, production, transportation, and maintenance and construction. The MOPO covers concurrent operations, external influences, and impaired Safety Critical Elements. Guidance is provided for each matrix to assist the user with understanding the threats associated with the activity, and what additional controls may need to be implemented to proceed with caution. Users include maintenance planners, project engineers, supervisors, technicians, operators, and line management. The tool is routinely used during work planning, approval, and during the work when conditions change, and does not add significantly to the time for completing those activities. MOPO is also used as a communication and training tool. The MOPO is constructed from existing documents and processes including the HSE Case, bow-ties, maintenance procedures, operating procedures, HSE standards and regulations. Teams consisting of experienced senior technical and operations personnel are engaged to conduct validation of the matrices and provide guidance for incorporation in the tool. Asset leadership provides support of the implementation through providing resources for the validation and nominating site personnel as Focal Points for the roll-out training. Sustainability is achieved through ownership of the tool by the Operations Safety Managers coupled with a robust competency assurance and document update feedback system.