

Plant Process and People

Plant, Process and People

Effective process safety management is essential to the prevention and mitigation of major accident hazards.

However, on its own, it is not enough for reliable catastrophic event prevention. If we reinforce and develop the critical leadership behaviours that drive anticipation, inquiry, encouragement and implementation through all levels, we will create a culture that promotes and maintains process safety management excellence.

This leadership focus needs to ensure that Major Accident Hazards have been effectively identified, and that understanding of how loss of control can occur along with the outcome of this.

Through this information the leadership team is able to implement the major hazard control measures the barriers focusing on Plant, Process and People.

Plant

Firstly the plant, good process safety management seeks assurances that the plant has been rigorously designed, constructed and commissioned. Also that it will be operated and maintained, modified and decommissioned in such a way that the facility can be safely operated throughout its lifecycle.

This would include import and export systems, marine equipment, road loading systems and storage tanks – for instance pressure vessels, fixed roof or floating roof and ancillary equipment such as boilers, pumps, gauging systems and pipelines.

Process

The process element encompasses the management systems that are in place to ensure that safe operations are achieved, and control and mitigation measures are maintained and remain active.

Achieving good process requires strong procedures across safety, operational and emergency response, which can be supported by checklists and structured maintenance and defect reporting systems, these are underpinned by hazard identification, risk evaluation and audit processes both internal and external.

People

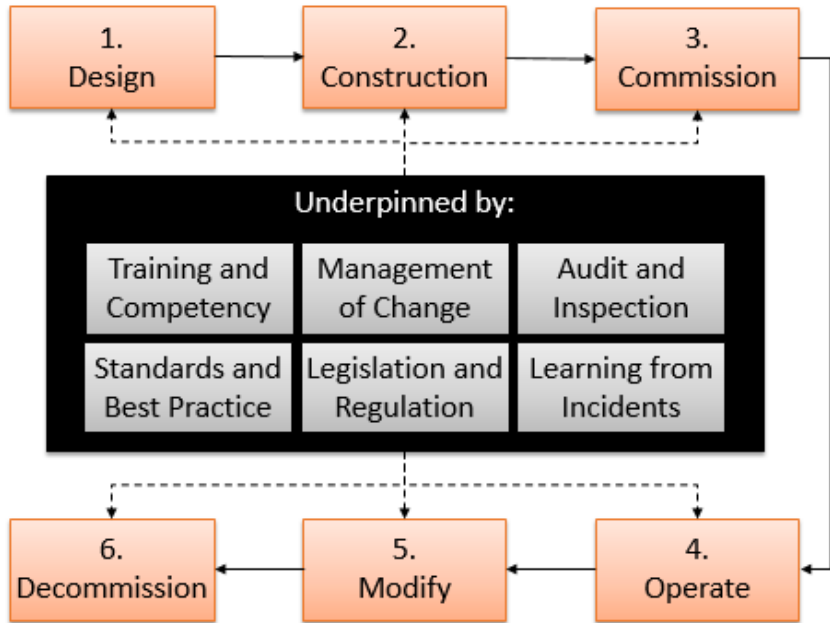
People are the lifeblood of facilities, from the CEO through to operational personnel. We must ensure that there are sufficient, well-motivated, alert and competent staff (including contractors and drivers) to rigorously implement all of the management, control and operational systems. This must be supported by clear communication that enable two-way feedback.

Process Plant Lifecycle

It is essential that the leadership approach to managing focuses across all elements of the Process Plant Lifecycle, and that we recognise within our sector the impact that change has on this lifecycle.

To ensure integrity Successful Process Safety Management must be focused on every stage of an assets lifecycle

These Process Safety Management systems must be focused across all elements of Plant, Process and People



Impacted by good hazard identification and verification processes

1. Design

Key concept design hazards out – achieve optimal performance aligning best technical solutions focused on safety and all lifecycle elements are considered

2. Construction

Construction to design, modifications controlled, verification and quality checks against standards and mechanical function confirmed

3. Commission

Function and acceptability testing, cross checked against design, process and performance standards, checks of emergency response and safety critical equipment

4. Operation

Operation of plant in line with design limits (safe operating envelope), audit and monitor process against relevant performance standards

5. Modification

Changes controlled through relevant change management system, which must provide clear reference to entry point in lifecycle to ensure effective controls implemented

6. Decommission

Closely monitored and controlled to safely remove from service, consider environmental impact of disposal and affect on all other processes