BUSINESS CHALLENGE

Major accidents happen infrequently due to the care taken in development of equipment codes, and the increasing expertise of plant designers and operators. However, many companies face major challenges related to the speed at which operations have to be installed, the manpower downsizing often required, the environmental pressures which may cause process changes, in some cases the ageing of plant, and in other cases the acquisition of other company sites. Despite all the challenges, a company must ensure that safety management is adequate and (if possible) compatible between one site and another, so that performance standards can be established and maintained.

SOLUTION

What is Process Safety Management (PSM)?
PSM is a part of safety management, which is concerned with major hazards impacting safety, environmental damage and business loss. Oil & Gas businesses are significant users of PSM methods, particularly where there are hazardous processes or large inventories of flammable or toxic materials. Regulators expect the operators of high hazard plants to implement measures to ensure that their plants are operated and maintained in a safe manner. PSM techniques are numerous - from process screening and concept selection, through hazard identification, consequence evaluation, risk assessment, ALARP study, pre start-up action response auditing, to inspection and auditing during operation.

What are the key benefits?
The major aim of PSM is to develop plant, systems, and procedures to prevent unwanted releases, which may ignite and cause toxic impacts, local fires, or explosions in plant or nearby premises. In addition, PSM can also address issues related to the Operability, Productivity, Stability, and Quality output of processes, leading to the specification of safeguards against undesirable events. Spin-off from the aims results in reduced exposure to lawsuits, penalties, public liability claims, and hikes in insurance premiums. Other intangible benefits include retention of corporate image. The principles of PSM apply throughout the lifecycle of a plant or installation to ensure that the facilities can be managed safely and achieve acceptable levels of business risk overall.

WHY CHOOSE BUREAU VERITAS?

Bureau Veritas is a widely recognized world leader in many of the elements of PSM, and with its growth over the last decade, now offers PSM technologies to cover the needs of typical oil and gas industry operations. Through 8 technical centres and 200 offices throughout the world, Bureau Veritas staff can deliver PSM to clients on a local basis, and they can of course optimise their project offers and PSM element delivery by networking with colleagues at Head Office and in other countries.
OUR APPROACH

Different PSM tools are used at different points within an operation’s lifetime.

For example, HAZID is undertaken during the early stages of a project in order to ensure hazard awareness during design, whereas topics such as hazardous area classification, SIL assessment, and fire consequence evaluation can be done during design as well as during operation.

Bureau Veritas aims to advise clients about what studies are appropriate at any stage in a facility’s life, as well as to respond to client requests for specific work or for enhancements to their PSM programme.

FAQ

How does PSM relate to techniques such as HAZOP and check-list?

HAZOP, consequence analysis, etc. form part of PSM. The PSM adviser chooses techniques to incorporate in a particular study, to meet the client safety management system and/or to suit the legislative requirements.

CLIENT REFERENCES

Bureau Veritas in Australia gained a contract for PSM on the Ocean Legend platform, during a design and build contract. The work allowed fast response to safety issues, allowing on-time completion:

- Full review of the FSA.
- Concept Safety Evaluation: technical concept evaluation, HSEMS review and personnel RA.
- HAZID on the Export System, Drilling Operations, FSO, etc.
- HSE Management Plan.
- Pipeline HAZOP.
- SIMOPs Plan and audit checklist.
- Emergency Response Plans & Field Rescue study.
- Ship Collision Analysis.
- Update of Verification Procedure, HSE Goals, Performance Standards and Design Requirements.
- First Oil Start-up Review workshops.

CONTACT

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FOR MORE INFORMATION

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