

VAE CONTROLS GROUP

ENGINEERING & CONSULTING SERVICES

Providing the support for setting your standards into achievable 'Best in Class' performance

VAE
CONTROLS

ISO 9001:2008
ISO 10006:2004
ISO 14001:2004
OHSAS 18001:2007
NATO FCC

Consulting Services Affiliations & Standards Reference

*Include International &
National and Health and
Safety Governance and
institutions*

- WHO
- ILO
- OSHA
- NIOSH
- IOSH
- EPA
- EUASH
- OHSAS-18001
- COMAH
- RIDDOR
- COSHH



VAE CONTROLS offer a range of services focusing specifically in Energy Field and Associated service sectors, with a dedicated professional team of experts that ensure the customer you receive the highest level of service .

A wide range of services are available, and can be specifically tailored for your specific needs. Such as ISO certification support: training and certification process with auditing as post service offering.

The VAE concept is to work with you the customer for best fit and provide value for money. Consulting services need to provide value in terms of benefits across the companies business. This can only be achieved with experience, knowledge and close working relationship with customer and there staff.

Helping you find answers to your questions

- ✓ How to bridge the gap between CAPEX and OPEX?
- ✓ How can genuine marriage of Risk Assessment through project 'Life Cycle' improve your staff and operational safety?
- ✓ What is potential of environmental damage or human injury and how to mitigate them?
- ✓ How accurate are our measurement processes?
- ✓ Does 'Continuous Improvement' actual mean something other than words?

We at VAE think so and would be happy to assist you in developing not just words but results.



CONSULTING SERVICES FOR ENERGY MARKET SECTORS AND WATER INDUSTRY

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Ask VAE today for further information, what we can do for your specific business needs. And test case studies.

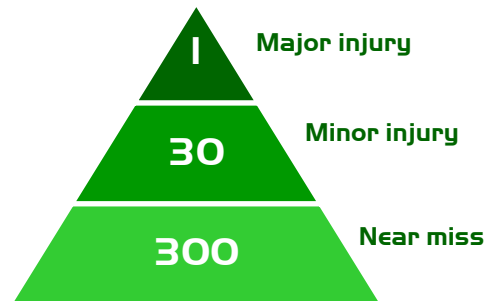
FEED - Front End Engineering Design

Every year billions dollars are invested in constructing new plants, revamping existing ones, improving safety and environmental compliance, and increasing system reliability. Even more investments are in asset management and maintenance programs. The ability to secure the **EPC to be delivered within acceptable time, quality and budget** shall be managed thanks to FEED, which is typically executed after completion of Conceptual Design and before execution of EPC. FEED is provided by **multi-disciplinary team of experts** with the target to define key technical issues and estimate the investment cost.

Key potential benefits are (1) Reducing install costs typically by up to 4 % (CAPEX), (2) Reducing lifecycle costs (OPEX), (3) Shortening the project schedule, (4) Shortening the period of Return On Investments (ROI).

Hazard Operational Study (HAZOP)

HAZOP is a team process used to define operational procedures and standards. It is based on structured and systematic examination of existing or planned process or operation in order to **identify and evaluate potential risks** to personnel, equipment and efficient operation. **HAZOP is carried out by a multi-disciplinary team** during a set of meetings. Once the causes and effects of potential hazards have been established, the system can then be modified to improve its safety and then HAZOP shall be applied again to ensure that no new problems have been added.



Simplified Heinrich's triangle



Risk assesment process flow

Risk Assessment (RA)

Vitally important for all aspects of your business, from early part of projects, large / small, translating into operational, RA will provide the process for operational excellence and safety management across your business. Normally run as workshop training to facilitate skills within, then bench marking 'Improvement Process' and Auditing.

RA include a careful examination of what in your work could cause harm to people, whether you have taken enough precautions and what should be done more to prevent harm. We focus mitigating activities and behaviours that move us up the Heinrich inevitability triangle. We provide both **auditing and training** for all levels of staff - from top management to hourly workers.

Metrology

Measurement errors on custody transfer points cause significant financial and legal risk for both parties - buyer and seller. Analysing the measurements methods and tools we can define: (1) What type of errors exist in your metering systems and processes, (2) What are consequential risks, (3) How to minimise measurement errors, (4) Choose the **right metering and proving method** for each application respecting the "Best measurement practices".

Break-Out Services

Other consulting services available at VAE are: (1) Permits to work inclning Lock-Out training procedures & Auditing, (2) Hazardous Areas workshop, (3) Fire Protection, (4) Noise mapping & testing, (5) PPE audit & Manual Handling, (6) Lifting equipment audit & testing, (7) Work permit's systems Hot/Cold, (8) Equipment MTBF selection workshops.

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