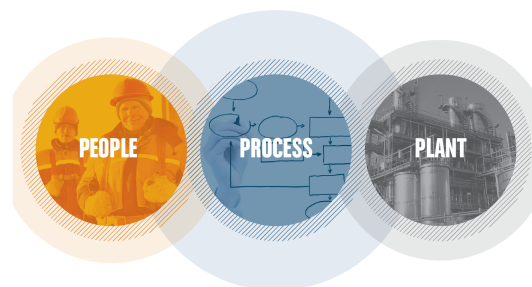


Process Safety Management Gap Analysis & Audits



Process safety is a system framework of engineering and management systems used to manage the integrity of hazardous processes. Holes in these systems can expose a facility to unnecessary risk. A process safety audit uses a team of subject matter experts to reveal gaps, benchmark the performance of these systems against best practice and make recommendations to close them.



Process Safety Audits

- Leadership
- Management of Change
- Hazard ID
- Risk Assessment
- Functional Safety
- Alarm Management
- Pressure Vessel certifications
- Tank certifications
- Hazardous areas
- Aging Plant / Asset Integrity
- Operating Procedures
- Worker engagement
- Contractor management
- Permit to Work
- Drawings
- Safety Critical Elements
- Human Factors in operations
- Incident management
- Inherent Safety
- Emergency Preparedness
- Performance monitoring, audit and review
- Process Safety Management System

Safety Solutions can audit against the elements listed here or alternatively against recognised process safety frameworks such as the CCPS or Energy Institute. A process safety audit typically includes the following:

- 1) Issuing audit element preparation sheets (completed example below) and a list of document requirements for pre-review.
- 2) Sending a team of 2-3 subject matter experts to interview site personnel (over 3-5 days) and collect evidence to benchmark the element against good practice.
- 3) Issue recommendations to close gaps

PTW System: General	
Is the permit issue facility of adequate size & location?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/> <i>Issued from control room, wall panel holds current and suspended permits. Dedicated permits desk is set up during a shut.</i>
How many new permits and how many reissued permits are issued each day?	<i>Only a few each day when the plant is running, dozens a day during shut.</i>
Is the resource provided for issuing permits compatible with the number of permits being issued?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/>
Has the PTW system been audited?	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Unsure <input type="checkbox"/> <i>No documented audit plan or procedure. Safety manager reviews all permit documents. Any issues are taken up with people concerned. Any major issue is entered into incident management system. Audit of sample PTWs was regularly done a few times a month up to Sept 2016.</i>
Have all corrective actions been completed?	Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure <input checked="" type="checkbox"/> <i>Issues are informally addressed with the people concerned.</i>
Have permits been filed & stored in a tidy & logical fashion?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/> <i>Retained by safety manager for 2 years.</i>
Have all permits inspected been correctly authorized and endorsed by trained personnel?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/>
Are reissue periods within the requirements of the PTW system?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/> <i>PTW is suspended at end of each work shift. Can be reissued up to 5 times.</i>
Is all supporting documentation correctly cross referenced?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unsure <input type="checkbox"/> <i>Lots of cross referencing, as separate sheets are used for permit, isolations, haz id, cōnf space, hot work, etc.</i>