

FUELLING FRONTIERS

Work Permit Training
Module 1

Control of Work



- The purpose of this **PERMIT TO WORK** document is to provide training and guidance to the person/s issuing permits and performing the work with a formal means of:
 - identifying, minimising, managing and controlling work related hazards; or,
 - potential hazards, which may cause accidents resulting in injury, property damage and/or business interruption, during the execution of the work.
- To pass this course you will need to:
 - Complete all of the modules and pass the course tests
 - Participate in the Field work and assessment
 - Submit a number of 'Buddy' Permits
 - Obtain in writing Work Permit Panel Approval and Authorisation (Certification and Approval)
- This workbook should always be used for guidance in conjunction with the Puma Energy Corporate Safety Procedures and the Work Permit Manual.

Introduction



Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8	Module 9
Control of Work	Petroleum Products	MOC & Operation Analysis	Issuing Permits – The Basics	Hazardous Works Permit	Work at heights Permits	Hot Work Permits & Gas Free Certificate	Confined Space Entry Permits	Lifting & Rigging Permit
THE FUNDAMENTALS				HAZARDOUS WORK	WORK AT HEIGHTS	HOT WORK	CONFINED SPACE	Heavy Loads and Manoeuvres

- Course delivery is in 9 modules with a Practical Session to consolidate and test the learnings.
- Each module has a test of knowledge gained from the course using Open Book research for answers.
- When you see this symbol it means there is a question in the tests



OBJECTIVES OF MODULE 1



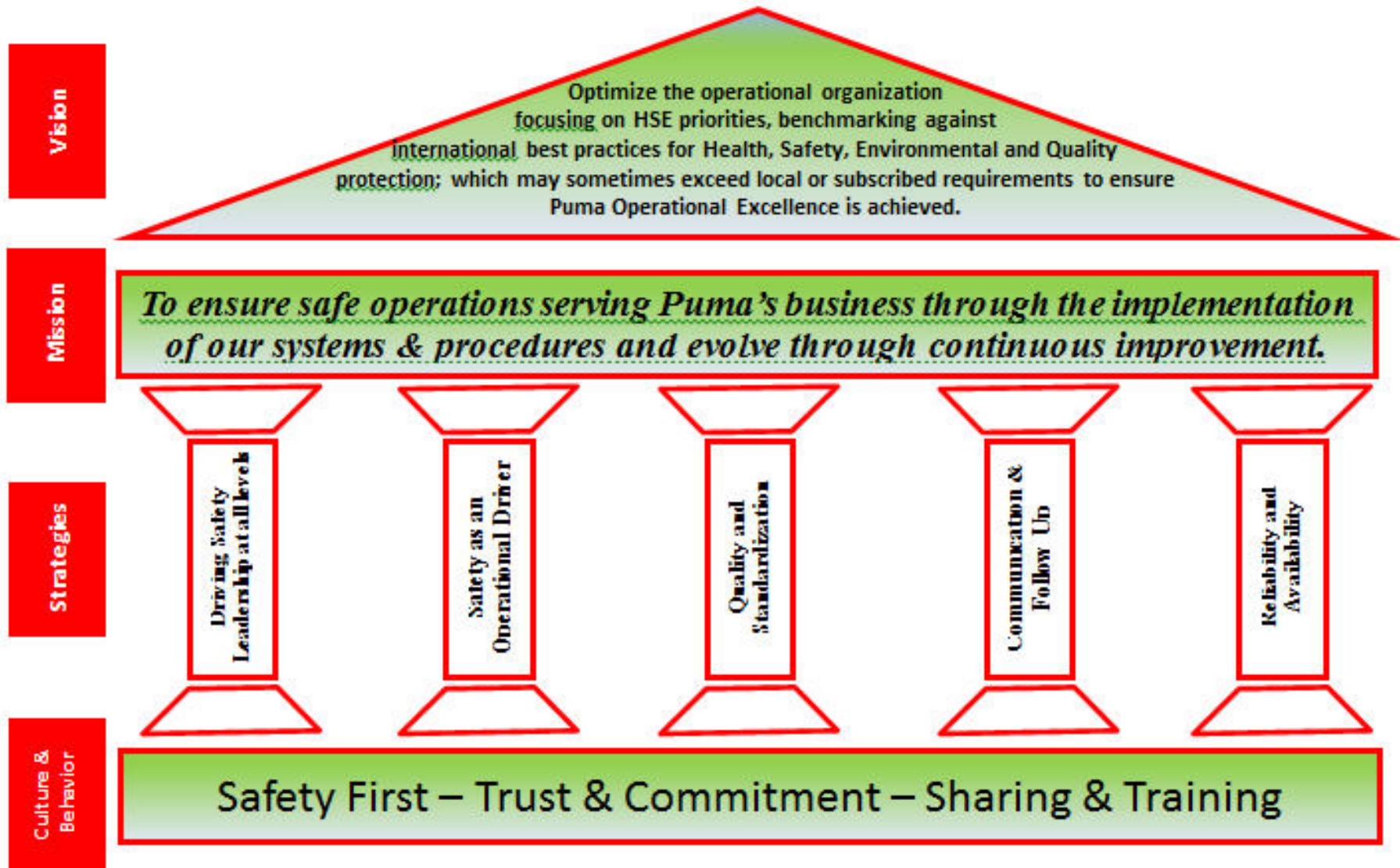
- At the successful completion of this module you will be familiar with:
 - Why we have a system for Control of Work?
 - Puma Energy SAPS System
 - SAPS Tools for Permit to Work Safety
 - High Risk Work Control Standards
 - Common Workplace HAZARDS

Puma Energy Safety Policy



- Demonstrate visible safety leadership by having Health, Safety and Environmental excellence as a company core value
- Drive and enhance the ongoing identification, communication and control of risks associated to our activities
- Executing processes in a safe and environmentally responsible manner through effective use of our Safety Management System (SAPS) Guidelines & Quality Standards
- Ensuring whenever there is a conflict between safety and the demands of our operations, safety will always be our highest priority
- Manage the development, standardization and continuous improvement of operational procedures
- Measure, monitor and communicate Key Performance Indicators to illustrate safe and reliable activities
- Provide employees with the capabilities and knowledge to instill a culture of personal ownership and motivation to achieve HSE operating excellence
- Work with local governments, agencies and stakeholders to embed best standards and processes to deliver a sustainable business
- On-going competence improvements via training, coaching, mentoring to encourage of a strong safety leadership culture
- Support the 'Stop Work Authority' that provides all employees the authorization to stop work if they believe it is unsafe to proceed

Puma Energy Operations Temple



Why have a Safety System?



- Each year unsafe practices and conditions results in industries experiencing:
 - Numerous Work Related Deaths per year.
 - Thousands of Work Related Injury or Illness.
 - Billions in Worker's Compensation Costs
 - Billions in Loss of Materiel and Equipment

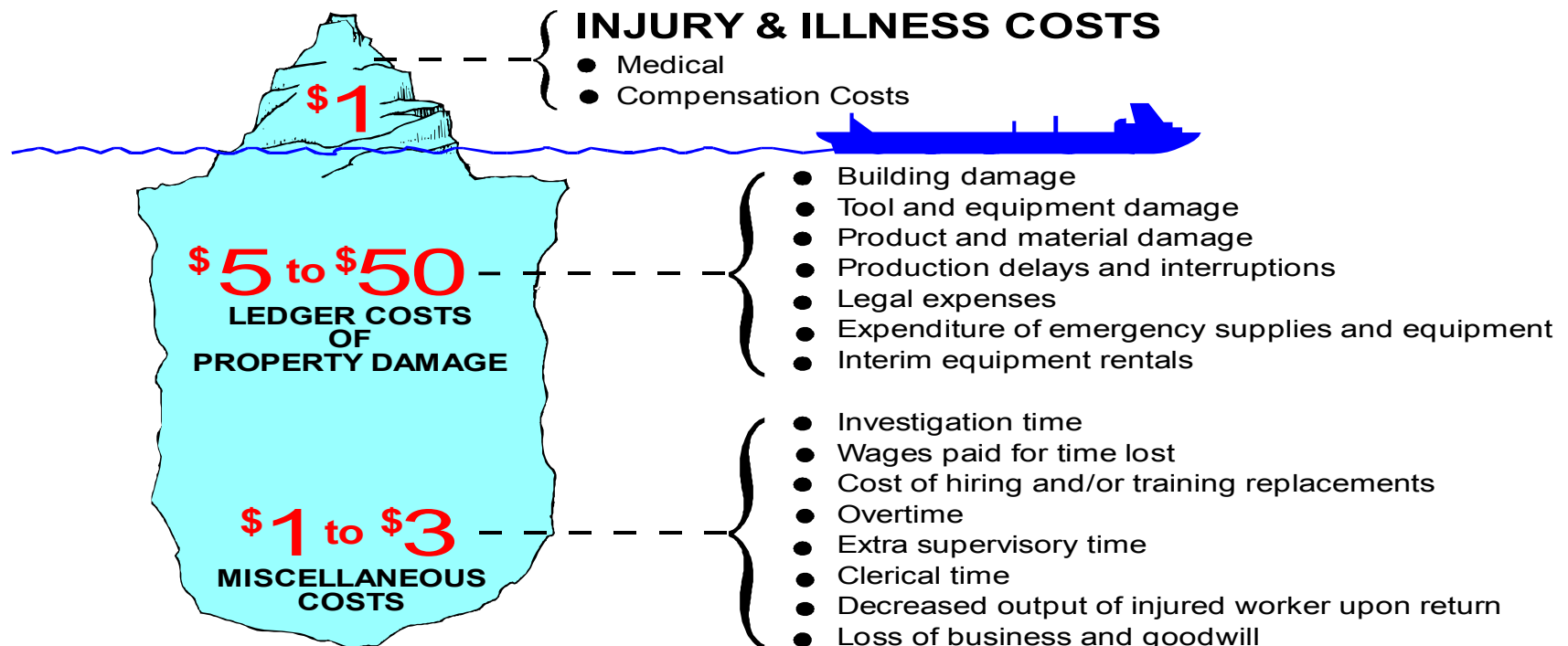
\$48 Billion in Total! (The Iceberg Factor).

Source ABS - Total number of workers 10,150,000

Why have a Safety System?

- Each The Accident Cost Iceberg shows clearly how a difference may exist between what an organisation thinks its losses are and what they actually are.

ACCIDENT COST ICEBERG



For every dollar spent on injury and illness there could be 5 to 50 times more spent on property damage and 1 to 3 times more spent on miscellaneous costs which are often hidden.

- SAPS comprises 8 Management Guidelines

1. Leadership and Commitment of Management
2. Hazards Identification and Control
3. Accident and Incident Investigations
4. Engineering and Management of Changes
5. Operation Analysis and Procedures
6. Training Systems
7. Emergency Response Plans
8. Regulatory Documentation and Compliance

- Each of these elements is critical to the safe operations of our business

SAPS Tools for Permit to Work Safety



Management of Change (MOC)



- An MOC is conducted to identify whether a project or change will operate safely after the change is complete.
- The MOC is the approval for Capital funding for projects/changes.
- A Project HSE Evaluation is conducted to identify the hazards that may arise during the change or project.
- The Pre-start-up Evaluation is used to check that all identified hazards are treated/controlled, and no new hazards have been generated during the change/project.

Critical Operations Analysis



- A PTW Operation Analysis (OPSAN) is similar to the JSA process.
- It is conducted to identify, assess, and manage the HSEC issues for the task being done.
- The OPSAN looks at the hazards likely to occur during the task:
 - The hazards directly due to the contractor's work.
 - The hazards from our own activities affecting the contractor's work area.
 - The hazards introduced to the workplace by the contractor and the work they are undertaking.

High Risk Work Control Standards



- The High Risk Work Control Standards covers the minimum standards for safeguarding people and plant.
- Everyone must be aware of these rules and follow them:
 - Permit to Work
 - Energy Isolation
 - Ground Disturbance
 - Confined Space Entry
 - Working at Heights
 - Lifting Operations
 - Management of Change

High Risk Work Control Standards



- The standards cover the minimum standards for protecting personal safety. Everyone should be aware of these rules and follow them.

– Permit to Work



– Working at Heights



– Energy Isolation



– Lifting Operations



– Ground Disturbance



– Management of Change



– Confined Space Entry



- Every member of a work team must have recognised training to carry out their tasks. This includes employers, managers, supervisors and employees.
- Every person in the organisation needs to have the knowledge, competency, and the skills needed to safely carry out the work required of them.



Emergency Planning



- The Emergency Plans have detailed instructions and procedures for fire, work shut-down, spillage, failure of pollution control systems or other emergencies (e.g. bomb threat, cyclone, etc.).
- All sites have written Emergency Plans.
- Site Emergency Plans are aimed at “high level incidents”, and may not always be appropriate for all work on a site. Permit writers may need to prepare their own emergency plans as part of the OPSAN and permit writing process.

Workplace Hazards

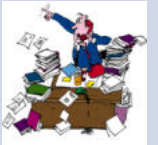
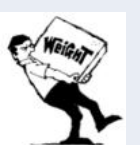
- When applying the High Risk work Control Standards for Permits the Issuer must also consider the following HAZARDS when preparing for Permit Writing:

- Fire
- Toxins
- Electrical
- Heights
- Weights
- Temperature
- Pressure
- Accessibility
- People
- Atmosphere
- Traffic
- Radiation
- Ignition
- Vapours



Workplace Hazards

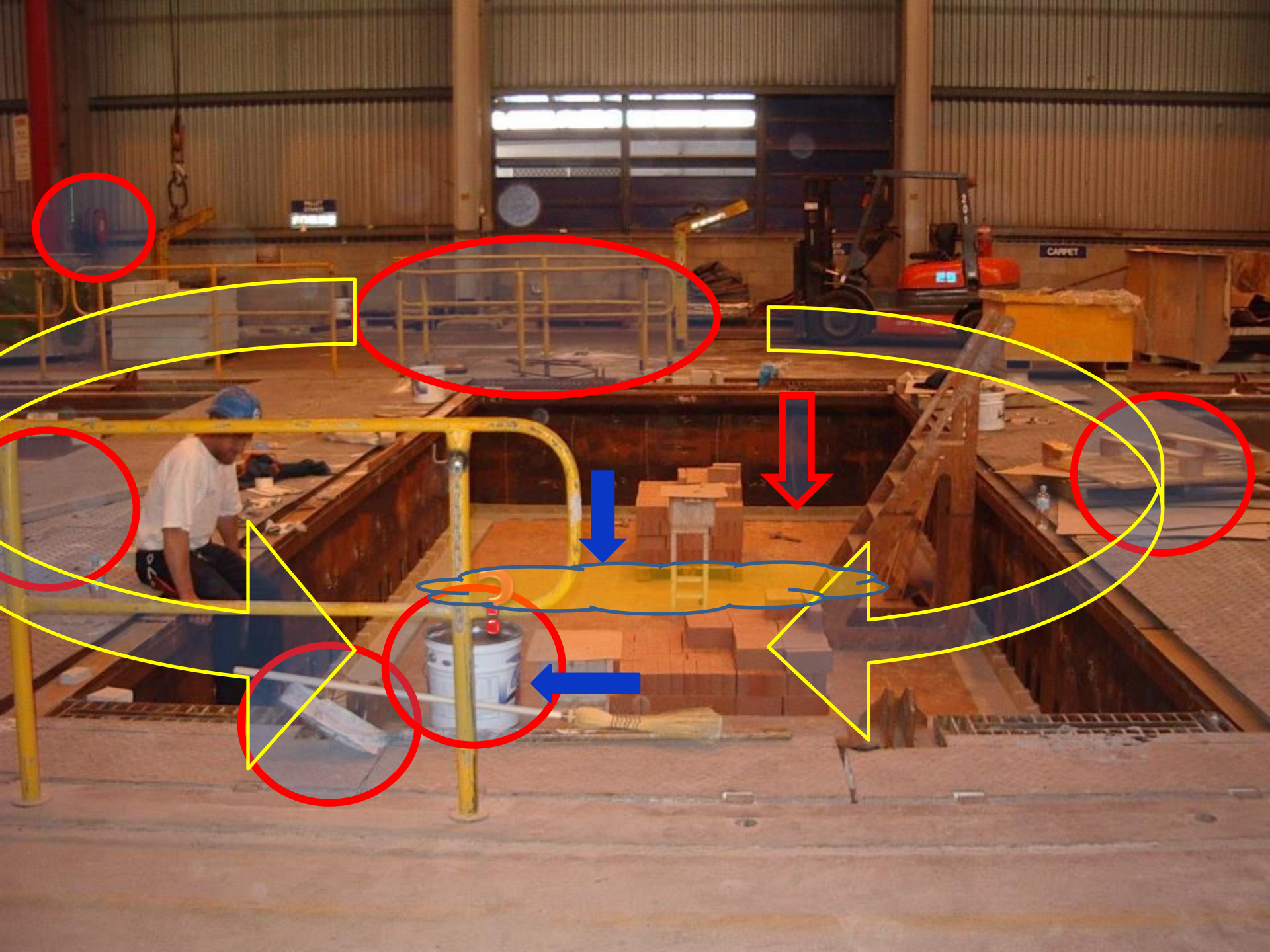
- Sources of Hazards in the workplace:

Falling/Heights • People falling • Objects falling 	Chemicals/Substances • Chemical burns • Vapours 	Disease • Virus, Bacteria • Fungi, toxins 
Machines/Tools • Contact machinery and tools 	Noise • Acute and permanent hearing loss 	Psychological • Harassment • Conflict/Stress 
Electrical • Electric shock • Electrocutation 	Thermal • Heat stress • Hot/cold burns 	Emissions & Releases (Environmental) • Atmospheric • Energy • Water • Waste • Soil • Resource use 
Vehicles • Strike by mobile plant 	Radiation • UV radiation • Welding Flash 	
Human/Muscle • Manual Handling • Strains/Sprains 	Pressure • Fluid /Air under pressure • Gas cylinders 	

Workplace Hazards

- Sources of Hazards in the workplace:

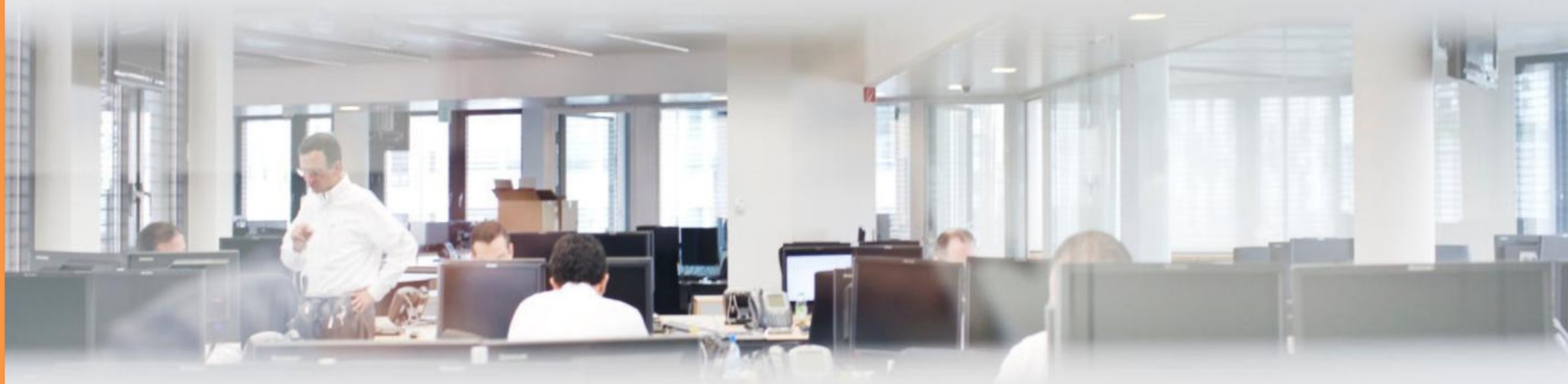
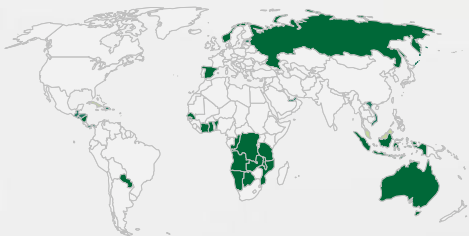




Key Points

- During this session we discussed:
 - The elements of SAPS Process Safety Management System
 - The High Risk Work Control Standards
 - Some common hazards at Puma Energy facilities
 - MOC, OPSAN, HSE Evaluation and Pre-Startup
- **Conduct written Test 1**





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