CPD Construction Site Safety Standardisation in Projects

شركة تنمية نفط عمان
Petroleum Development Oman

Objectives

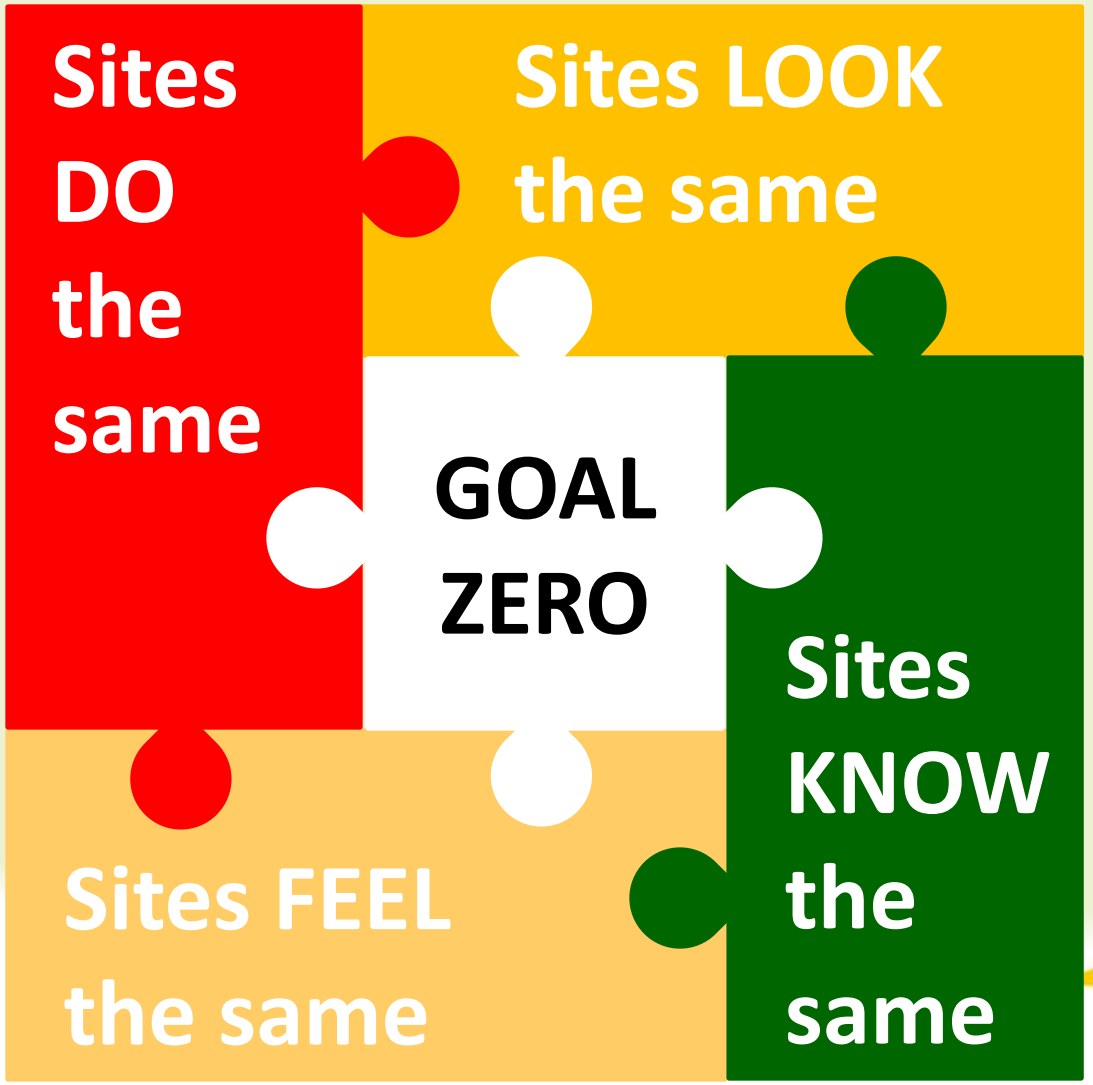
We continue to hurt people.....

- A standardised approach will make things **easier** and **safer** and deliver these benefits:
  - **Reduce HSE risk** by consistently applying the practices we know work best
  - **Deliver greater consistency** across Projects by providing a set of standard safe working practices focused on activities that have high risk and high frequency of incidents
  - **Improve experience transfer** and learning and avoid "reinventing the wheel" across Projects

The ultimate vision for our construction sites

- Hazardous Activity and Safe Practice standards are understood and implemented
- Consistent approach to construction safety management

- Everyone feels proud of their safety performance
- Everyone feels able to intervene



- Use of consistent materials
- Sites set up based on standard principles

- Teams understand how to access & use standard materials and tools, developed from best practice
- Formalised learning on and between projects

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Hazardous Activity and Safe Practice Standards

What

- The materials that are available and what they cover

How

- How to use the materials to cascade the practices to all work levels and ensure everyone understand the contents

When

- When to use the materials

Who

- Who should use the materials

Hazardous Activities and Safe Practices

Focused on achieving safer working practices for everyone

- The Standards exist to protect everyone working on the activities that currently cause the most severe or frequent incidents
- The standards build on the PDO Life Saving Rules and HSE Management System (CP-122)

Hazardous Activities

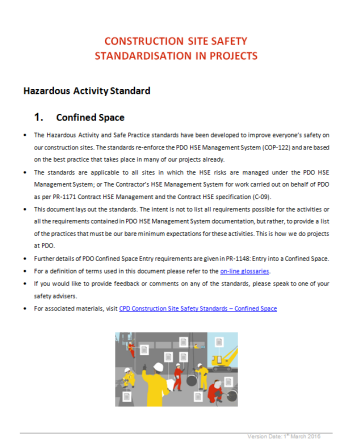
1. Confined space
2. Excavation
3. Heavy Vehicle and Equipment Operations
4. Hot Work
5. Lifting and Hoisting
6. Safe Isolation of Energy
7. Scaffolding
8. Simultaneous Operations
9. Working at Height

Safe Practices

A. Barricades and Open Holes
B. Housekeeping
C. Line of Fire
D. Personnel Protective Equipment
E. Routine Life Tasks
F. Dropped Objects

The PDO Construction Site Safety Standards (CSS) materials

A Standard for each topic

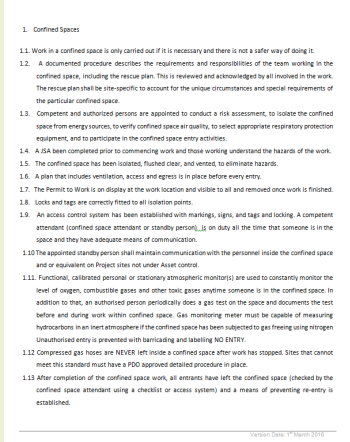


CONSTRUCTION SITE SAFETY STANDARDISATION IN PROJECTS

Hazardous Activity Standard

1. Confined Space

- The Hazardous Activity and Safe Practice standards have been developed to improve everyone's safety on our construction sites. The standards re-enforce the PDO HSE Management System (COP-122) and are based on the best practice that takes place in many of our projects already.
- The standards are applicable to all sites in which the HSE risks are managed under the PDO HSE Management System, or The Contractor's HSE Management System for work carried out on behalf of PDO as per PR-1171 Contract HSE Management and the Contract HSE specification (C-09).
- This document lays out the standards. The intent is not to list all requirements possible for the activities or all the requirements contained in PDO HSE Management System documentation, but rather, to provide a list of the practices that must be our bare minimum expectations for these activities. This is how we do projects at PDO.
- Further details of PDO Confined Space Entry requirements are given in PR-1148: Entry into a Confined Space.
- For a definition of terms used in this document please refer to the on-line glossaries.
- If you would like to provide feedback or comments on any of the standards, please speak to one of your safety advisers.
- For associated materials, visit CPD Construction Site Safety Standards – Confined Space



1. Confined Spaces

1.1. Work in a confined space is only carried out if it is necessary and there is not a safer way of doing it.

1.2. A documented procedure describes the requirements and responsibilities of the team working in the confined space, including the rescue plan. This is reviewed and acknowledged by all involved in the work. The rescue plan shall be site-specific to account for the unique circumstances and special requirements of the particular confined space.

1.3. Competent and authorized persons are appointed to conduct a risk assessment, to isolate the confined space from energy sources, to verify confined space air quality, to select appropriate respiratory protection equipment, and to participate in the confined space entry activities.

1.4. A JSA been completed prior to commencing work and those working understand the hazards of the work.

1.5. The confined space has been isolated, flushed clear, and vented, to eliminate hazards.

1.6. A plan that includes ventilation, access and egress is in place before every entry.

1.7. The Permit to Work is on display at the work location and visible to all and removed once work is finished.

1.8. Locks and tags are correctly fitted to all isolation points.

1.9. An access control system has been established with markings, signs, and tags and locking. A competent attendant (confined space attendant or standby person) is on duty all the time that someone is in the space and they have adequate means of communication.

1.10 The appointed standby person shall maintain communication with the personnel inside the confined space and or equivalent on Project sites not under Asset control.

1.11. Functional, calibrated personal or stationary atmospheric monitor(s) are used to constantly monitor the level of oxygen, combustible gases and other toxic gases anytime someone is in the confined space. In addition to that, an authorised person periodically does a gas test on the space and documents the test before and during work within confined space. Gas monitoring meter must be capable of measuring hydrocarbons in an inert atmosphere if the confined space has been subjected to gas freeing using nitrogen Unauthorised entry is prevented with barricading and labelling NO ENTRY.

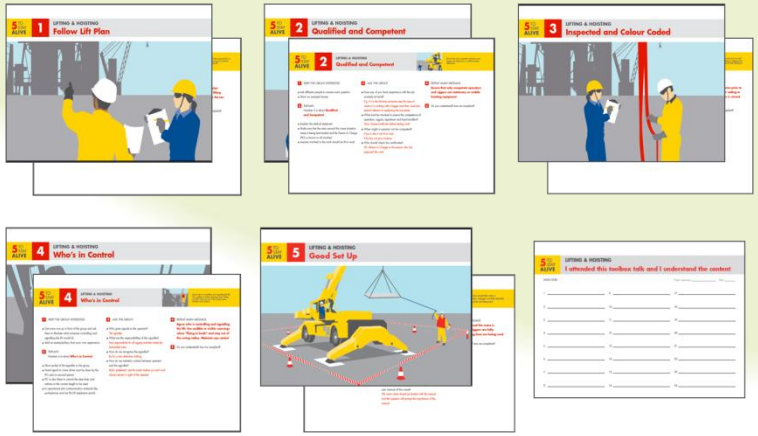
1.12 Compressed gas hoses are NEVER left inside a confined space after work has stopped. Sites that cannot meet this standard must have a PDO approved detailed procedure in place.

1.13 After completion of the confined space work, all entrants have left the confined space (checked by the confined space attendant using a checklist or access system) and a means of preventing re-entry is established.

Version Date: 1st March 2016

Available in Livelink

Toolbox talk kits for each of the topics



"Five to Stay Alive Posters" for each topic available in English, Hindi and Arabic

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PDO Construction Site Safety Standards

This links direct to the CSS documents on LiveLink

CONSTRUCTION SITE SAFETY
STANDARDISATION IN PROJECTS

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- Key main controls contained in PDO procedures, guidelines and specifications
  - No more than 1 or 2 pages of requirements
- Useful for PTW Applicants, Holders, Area Authorities and Supervisors and HSE Advisors
- Useful during PTW preparation, JSAs, HEMP reviews
- Can be used as a checklist during site verification, inspection and audits

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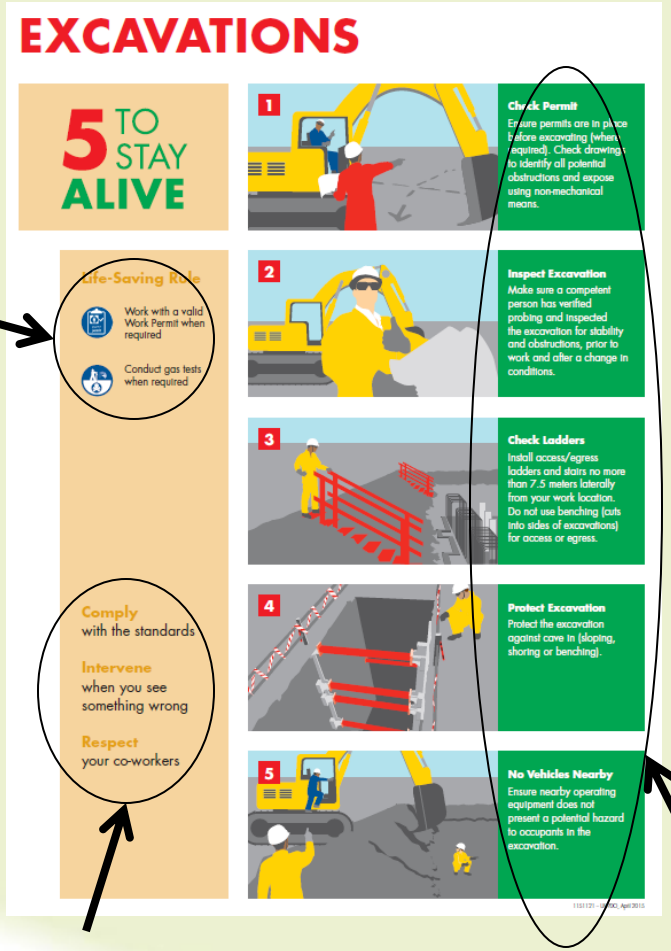
“5 To Stay Alive” Posters for each topic

List of Life Saving Rules that are related to the activities



- **Posters available in Arabic, English and Hindi**
- **Display them in workshops, offices, at worksites**
- **Ensure people understand**
- **The posters can be used as part of Tool Box Talks**

This summarises 5 key things that should be done.
E.g. for Excavation:
- Checking permits
- Inspecting the excavation
- Checking ladders
- Protecting the excavation
- No vehicles nearby

PDO Golden Rules. Emphasize the importance of Comply, Intervene, Respect in all activities

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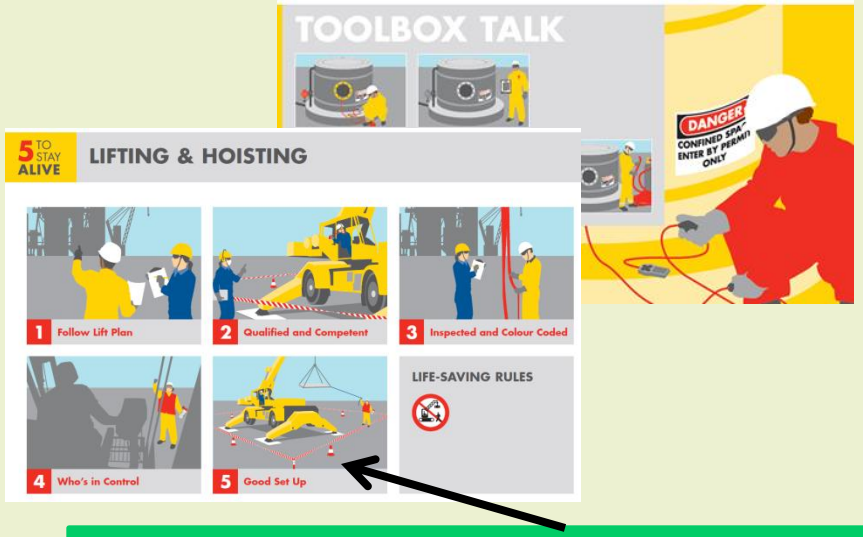
Tool Box Talk guides for each topic.....



5 key controls aligned with the "5 to Stay Alive " posters

WHEN YOU ARE READY TO START

1 Introduce yourself

2 State the subject for this Tool Box Talk (TBT) e.g. Confined space entry.
This is to ensure all of us are safe in this work.
We are all responsible for the safety of everyone around us.

3 Questions to ask the group:
a) What can go wrong in each activity?
b) What does this mean for our workplace?
c) Which Life Saving Rules are relevant to this job?

4 Explain what you will talk about in the TBT. TBT packs cover the same 5 key controls identified in the "5 to Stay Alive" posters.

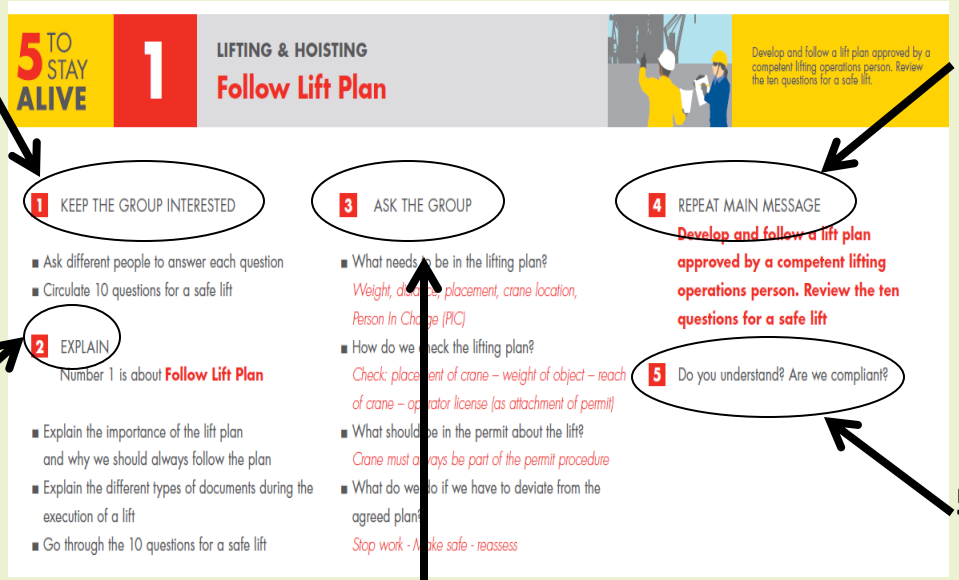
THINGS TO REMEMBER

- Keep them interested
- Ensure you have two-way communication with your team
- Good practice is that the TBT is done as questions and answers so that the TBT is a more interactive and "reflective learning" experience. This will help reinforce understanding
- TBT should take about 10 – 15mins

5 Steps to follow for explaining each control....

1. Keep the Group interested
Ask questions to different people.
Maintain an eye contact with the group.

4. Repeat the main message
Repeating what needs to be done will help people to remember things and emphasize the importance of what has been discussed.


5 TO STAY ALIVE

1 LIFTING & HOISTING
Follow Lift Plan

Develop and follow a lift plan approved by a competent lifting operations person. Review the ten questions for a safe lift.

1 KEEP THE GROUP INTERESTED
- Ask different people to answer each question
- Circulate 10 questions for a safe lift

2 EXPLAIN
Number 1 is about **Follow Lift Plan**
- Explain the importance of the lift plan and why we should always follow the plan
- Explain the different types of documents during the execution of a lift
- Go through the 10 questions for a safe lift

3 ASK THE GROUP
- What needs to be in the lifting plan?
  Weight, dimensions, placement, crane location, Person In Charge (PIC)
- How do we check the lifting plan?
  Check: placement of crane – weight of object – reach of crane – operator license (as attachment of permit)
- What should be in the permit about the lift?
  Crane must always be part of the permit procedure
- What do we do if we have to deviate from the agreed plan?
  Stop work - Make safe - reassess

4 REPEAT MAIN MESSAGE
Develop and follow a lift plan approved by a competent lifting operations person. Review the ten questions for a safe lift

5 Do you understand? Are we compliant?

2. Explain
The importance of each control and why we have to comply.
Help them understand the hazards and what controls should be in place.

3. Ask the Group
By asking the group it will help to keep their attention, help them to understand better and help them to think and eventually enhance their knowledge.

5. Do you understand? Are we Compliant?
Ask them these questions to test their understanding and to check if the controls are in place.

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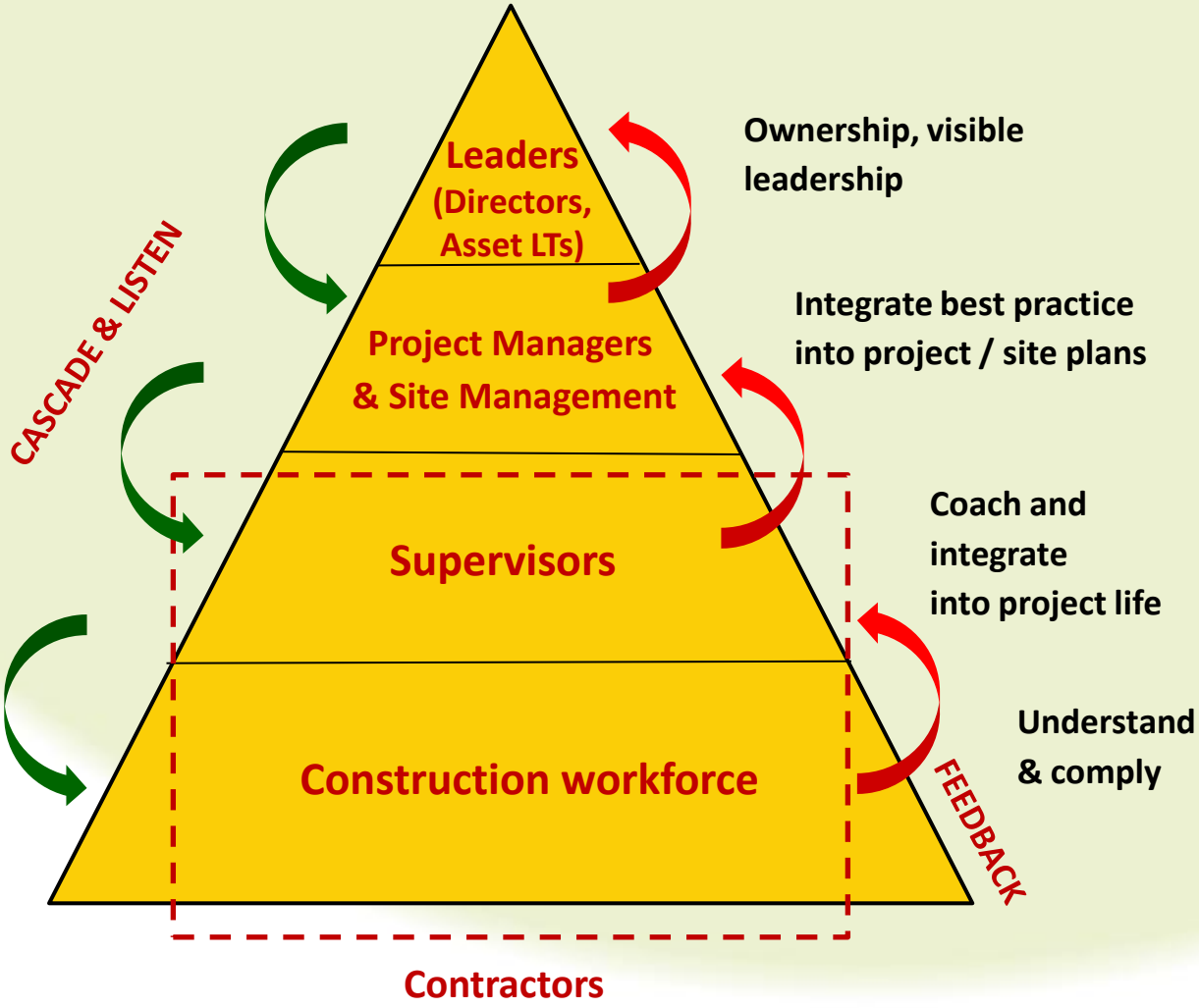
Accountability for implementation sits in the Line, supported by HSE



HSE support

- Hold up the mirror
- Coach and advise
- Share tools & resources
- Highlight best practices
- Assure progress

The Challenge: Compliance… Commitment…

Different skill sets are required to implement the HA & SP standards

Summary

- A standardised approach will make things **easier** and **safer** and deliver these benefits:
  - **Reduce HSE risk** by consistently applying the practices we know work best
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Thank You
&
Any Questions?