G+ Improving compliance workshop: basic lifting operations

G+ Global Offshore Wind
Health & Safety
Organisation

In partnership with

energy institute

G+ IMPROVING COMPLIANCE WORKSHOP: BASIC LIFTING OPERATIONS

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Contents

The Improving Compliance Workshop

G+ is the global health and safety organisation for the global offshore wind industry.

It has commissioned the development of a workshop designed to get people in the industry thinking about the routine, smaller lifts that are part of our day-to-day operations.

Why? Because these lifts are a source of many incidents and near misses.

The 3-hour workshop is designed to be used with groups of technicians who work in offshore wind operations.

The workshop can be delivered by any facilitator willing to familiarise themselves with the process before setting up the workshop and look through the comprehensive facilitator notes provided to understand all the steps.

What does it cover?

- The definition of routine lifts.
- The risks involved in routine lifts.
- The use of documentation to manage those risks.
- The types of non-compliance that may be occurring.
- The specific reasons behind such non-compliances.
- The development of actions to reduce non-compliance, which may involve redesign of the procedure, or of the worksite conditions that promote non-compliance.

This workshop is **not** a behavioural audit, and does not set out to find out what participants are doing wrong.

Instead it aims to provide a safe space for those who are expected to comply with the procedures to voice their opinions about why non-compliance occurs, and how this could best be reduced.

It is not about blame, but about enquiry, learning and improvement.

The workshop materials available to you from G+ include:

- A PowerPoint presentation covering all the steps in the workshop, together with comprehensive explanatory notes for the facilitator.
- A questionnaire designed to explore which types of non-compliance are an issue in the workplace.
- A1 flipchart worksheets to complete with the group during the workshop, which show the process step by step.
- Materials to support the group in deciding how the improvements identified might be made.
- A template of a SMARTER action plan, designed to help the group get into action.

Before you start

Points to consider before running the workshop in your organisation:

- How to involve managers/supervisors/HSE specialists.
- Time taken to run the workshop(s).
- Capacity for the organisation to take any action on issues raised.
- You might not uncover anything new, but the organisation may be able to look at the issues in a different way with new insight.
- There is an opportunity to empower technicians to come up with solutions—but managers need to support these for the workshops to have value.

Improving compliance workshop for G+

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What we will cover today

- Introduction.
- Basic lifting operations.
- Using procedures to manage risk.
- Improving compliance and procedures.
- Actions to improve.
- Close of workshop.

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G+ workshop

Introduction to the workshop

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Introducing the G+

The G+ is the global health and safety organisation for the global offshore wind industry. We bring together business leaders, health and safety experts, and organisations operating in offshore wind. Our members are committed to promoting and maintaining the highest possible standards of health and safety in the sector.

The overall aim of the G+ is to work together to tackle health and safety issues in the offshore wind industry. The G+ does this through four main work programmes: incident data reporting, Good practice guidelines, Safe by Design workshops and Learning from incidents.

To learn more about the G+ and its work please visit our website: gplusoffshorewind.com

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Why are we doing this now?

- Thank you for attending this workshop.
- You may be wondering why it is being held.
- Analysis has shown that across the industry, incidents occur that involve **routine**, **day-to-day lifting** and handling of **smaller loads** at
  - onshore facilities: e.g. quayside, warehouse; and
  - offshore locations: e.g. Wind Turbine Generators (WTGs), Offshore Substations.
- Simply put, this is '**getting your stuff to the work site**'.
- Feedback from G+ member companies supports this point.

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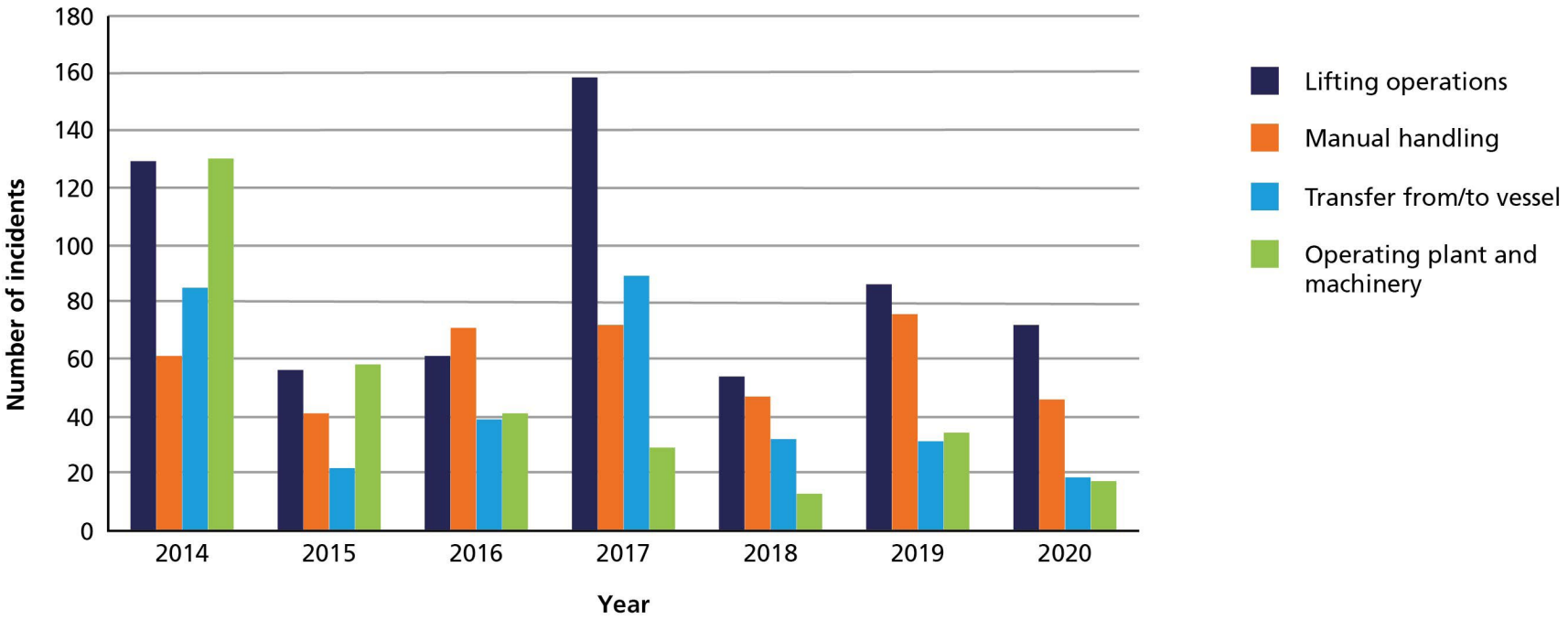
G+ H&S incident data



- Top 4 work processes per number of incidents.
- Lifting operations first or second highest each year.
- Of these Top 4, lifting operations have the largest share of high potential incidents, at 37%.

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Which type of lifts are we looking at in this workshop?

The focus is on **routine**, **day-to-day** lifts (not major component lifts).

These lifts take place in various locations:

- Onshore
  - harbour, quay, pontoon, warehouse/workshop.
- Offshore
  - turbine: nacelle, transition piece/boat-landing.
  - substation.
- Vessels
  - crew transfer vessel (CTV), small vessels (<24 m), work and supply vessels.

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We need to improve

- A G+ review has suggested that there are concerns across the industry that behavioural aspects of safety are one of the key drivers behind incidents and near misses in this type of lifting.
- Behavioural aspects of safety need to be considered together with technical and design aspects (infrastructure, equipment) and organisational issues (systems, processes, procedures).
- This workshop aims to explore some of the issues related to incidents and near misses in this type of lifting.

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Engaging with the workshop

- This workshop is a safe space.
  - Please be open and frank in the exercises and discussions.
- Every organisation has ways of working that may not be exactly what is documented or written down.
  - For example, rules or procedures that are not always followed, and therefore are not always effective in managing risks.
- We want to talk about how this happens in your organisation.
- We want to hear from you about how work gets done here.

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G+ workshop

Basic lifting operations

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What are the lifting operations in your work?

We are especially thinking about routine, day-to-day, 'getting your stuff to work' lifts—at all the locations you work in.

- What are the main activities you do that involve lifting?
- What sort of equipment do you use?
- What are the different types of load?

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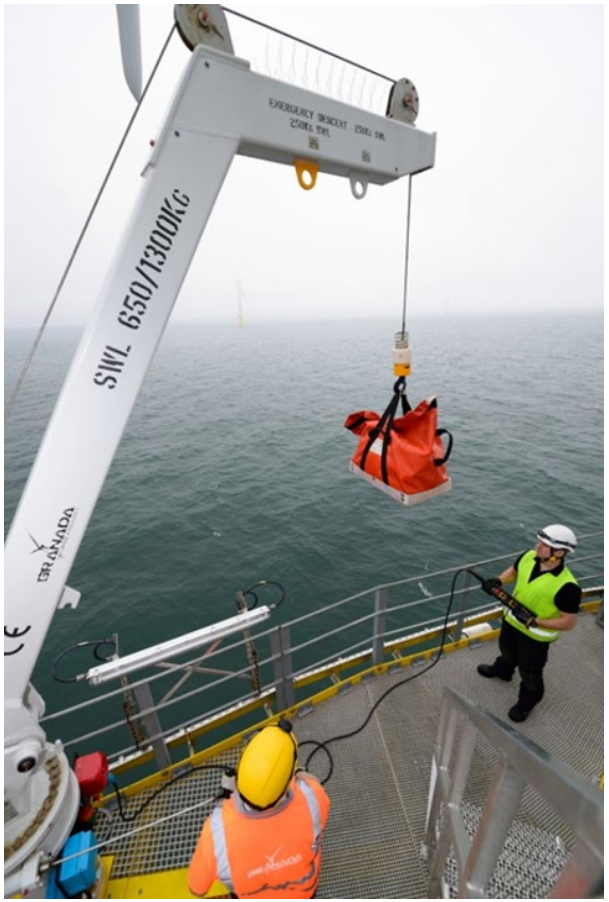
Basic lifting operations: what should happen



Industry guidance and legislation states that a safe system of work must be established and maintained for every lifting operation.

The main principles of the safe system of work are that **any lifting operation must be**:

- Properly planned.
- Well organised.
- Appropriately supervised.
- Carried out by trained and competent staff.
- Carried out in a safe manner—including lift-up, set-down and afterwards—and managing the load at all times.
- Closed and reviewed.

The **overall objective** is that all hazards are duly considered, communicated, well understood and controlled by those involved in the lifting operations.

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Lifting operations and Lifting Equipment Regulations

These are very clear on the positioning of lifting equipment to prevent harm and the organisation of lifting operations:

Positioning and installation

6.— (1) Every employer shall ensure that lifting equipment is positioned or installed in such a way as to reduce to as low as is reasonably practicable the risk—

(a) of the lifting equipment or a load striking a person; or

(b) from a load—

(i) drifting; (ii) falling freely; or (iii) being released unintentionally; and it is otherwise safe.

(2) Every employer shall ensure that there are suitable devices to prevent a person from falling down a shaft or hoistway.

Organisation of lifting operations

8.— (1) Every employer shall ensure that every lifting operation involving lifting equipment is—

(a) properly planned by a competent person;

(b) appropriately supervised; and

(c) carried out in a safe manner.

(2) In this regulation 'lifting operation' means an operation concerned with the lifting or lowering of a load.

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Key activities in routine lifting operations

The activities that are involved in ‘getting your stuff to work’ may not feel like lifting operations, but they come under the same guidance and legislation.

Routine lifting operations should be planned and risk assessed by a competent person prior to commencement to ensure safe execution.

They should address the following questions:

- Has a formal lift plan been prepared?
- Objectives of the lifting operation—what is the task?
- What are the characteristics of the load?
  - including dynamic conditions, unusual loads.
- Are the correct lifting equipment and accessories being used?
- Have the hazards been identified and the risk assessed by a competent person to control the area?
- Are the right resources (people) in place?
  - roles and competency, e.g. Technical Authority, Appointed Person (where appropriate/required), enough people.
- Is the equipment being operated within specifications and in control?
- Are multiple lifts taking place within the same area?
- Have inspections, checks and maintenance of equipment been carried out?
- Has the condition and adequacy of the set-down area been considered?
- Have the condition of the load, and what could happen after set-down, been considered?

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Routine, day-to-day lifts: the reality?

Multiple bagged load

20 kg weight not attached to sling; weights (15 pcs = 300kg) lifted using the 'sewing' technique; one weight has been overlooked and is not attached to the sling

- What are the risks in these examples?
- Have you seen incidents like this?
- Why do people do this?

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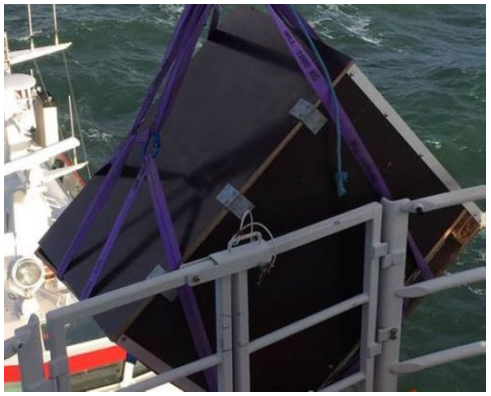
Routine, day-to-day lifts: the reality?

Unsafe lifting using carabiner



Unsafe lifting using carabiner

Carabiner used as lifting point for the four slings, instead of the shackle. The carabiner doesn't have enough strength to sustain the 500 kg of the load

- What are the risks in these examples?
- Have you seen incidents like this?
- Why do people do this?

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Description of carabiner unsafe lifting

Description

- During the review of a dropped lifting bag during cargo transfer two unsafe lifting practices were noticed, which are used on multiple sites: use of carabiners for lifting and use of the 'sewing' technique for lifting. This piece of equipment and method are not safe to use when lifting bags or tools, as this could lead to dropped objects and even personal injuries. More cases related to these unsafe lifting practices were found during an investigation.
- A carabiner is a piece of personal protective equipment to guard against falling from height. There is a risk of unclipping or breakage, which could subsequently lead to a dropped load, if carabiners are used for lifting.
- 'Sewing' technique is where the sling goes through the handles of one bag/load and then goes through the handles of several other bags/loads. There is a risk of overlooking handles or bags, and a subsequently dropped load.

Learnings

- Do NOT use carabiners for lifting. Carabiners should only be used as personal equipment.
- Do NOT use the 'sewing' technique for connecting loads when lifting.
- Only use fishing boxes or spider strap hooks for lifting multiple loads.

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What are the risks in your lifting activities?

- The potential for harm in routine lifts is the same as in major component lifts.
- They all have four components:
  - load, equipment, accessories and environment.
- There is no difference between big and small lifts in our vulnerability to harm.
- However, it can feel as though there is less risk in routine lifts.

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Example hazards/risks

Load
Position of CoG, including unknown position
Location and type of lift points
Complex slinging arrangements
Use of load control systems
Uncertainty in weight of load
Two-crane lifting operations
Integrity of load
Load dynamics, floating, in port or in field
High surface area and drag coefficient
Weight transfer
Axle load transfer
Orientation of the load
Access to lift points and rigging
Sharp edges
Protruding load parts

Environment
Snow
Ice
Hail
Rain
Wind
Lightning
Sea state
Fog
Uneven ground
Poor ground conditions
Poor seabed conditions

Proximity to
Main components
Adjacent vessels
Vessel structures (crane structure, jack-up legs, masts, accommodation)
Roads
Rail
Passing vessels
Adjacent cranes, mobile elevating work platforms (MEWPs) or other plant and equipment
Temporary works (e.g. scaffolding)
Proximity to quayside
Mooring lines
Permanent and temporary lighting
Power lines
Personnel
Underground utilities
Ducts
Sewage
Cellars
Pipelines

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G+ workshop

Using procedures to manage risk

What documents do you use for lifting operations?

Organisations have documents to state how work should be done.

These documents:

- Define acceptable operating standards.
- Describe good practice.
- Set out actions and sequences—step-by-step requirements.
- Assume that operators have required level of competence.
- May be required for legal compliance (varies across regions).

What documents do you use in work that includes routine lifting operations?

Which of these documents are difficult to use, and for what reason?

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Point of clarification: what are procedures?

- In this part of the workshop we refer to ‘procedures’.
- In this context a procedure is a document that specifies the correct, effective and safe way of carrying out a task.
- You may have been trained on the guidance/procedures/rules related to lifting activities in your organisation.
- However, while a formal lifting plan may not used for these smaller lifts, you may well have **guidelines**, **rules**, **risk assessments**, **work instructions**, **protocols** and **flow charts** for the lifting task.

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The role of procedures: what are they for?

- Most organisations use procedures as one of the main barriers against mistakes and non-compliance.
- These procedures aim to specify best practice. They form a very important part of a safety management system (SMS).
- However, lifting operations may not always go to plan. Everyone makes mistakes from time to time, or compliance may be difficult.
- Organisations need to ensure that their systems and processes do not give rise to situations that make mistakes and non-compliance more likely.

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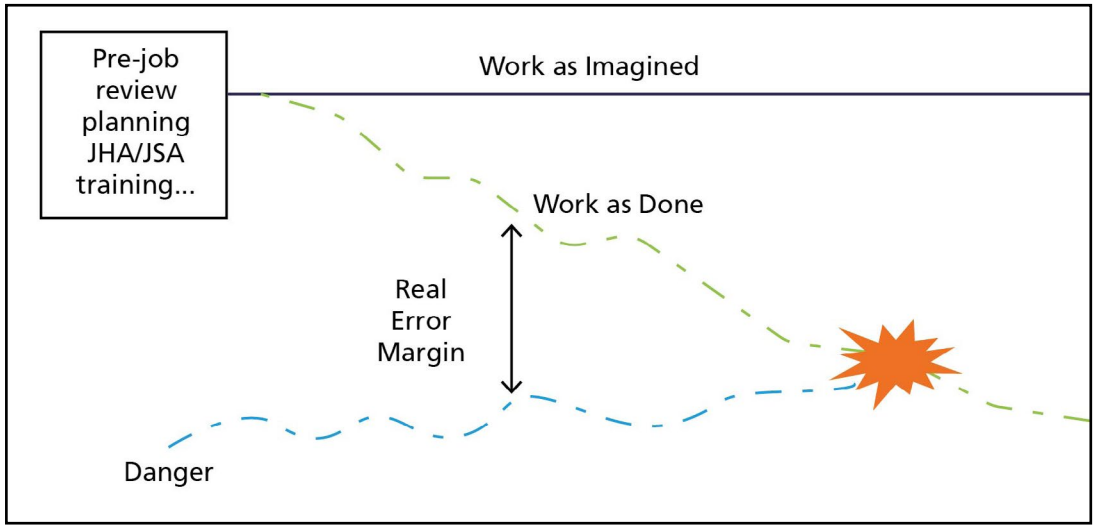
Work as Imagined vs. Work as Done



Adapted from 'Pre-Accident Investigations' Todd Conklin, 2012

- The solid line represents 'Work as Imagined'
  - the way the work is supposed to happen.
- The green dotted line is 'Work as Done'
  - the way the work actually gets done.
- In most workplaces there is a gap between the two, as shown here.
- That gap may get bigger over time, and result in hazards that are not planned for, properly managed, or protected against.

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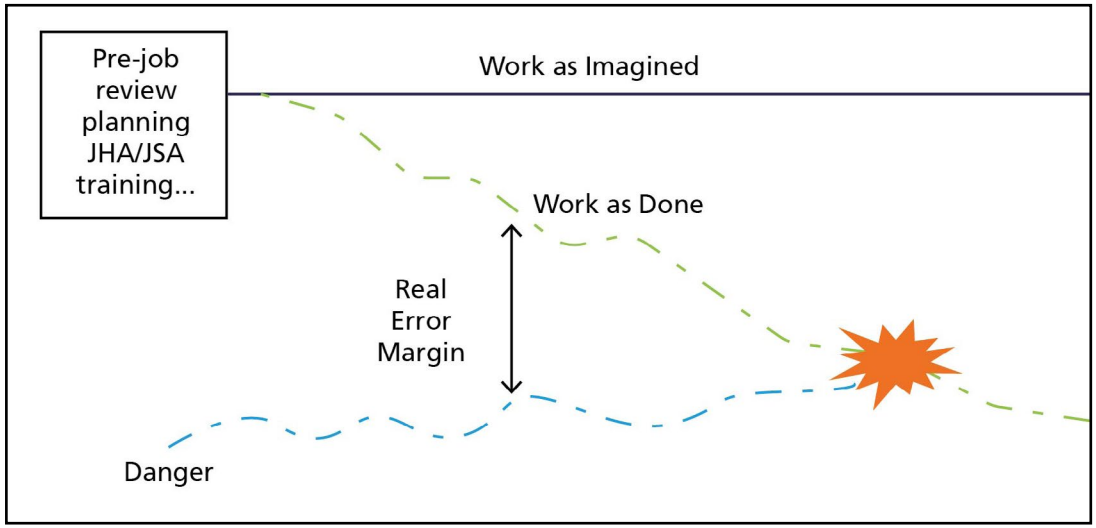
Closing the gaps



- In most companies there is a gap between 'Work as Imagined' and 'Work as Done'.
- This workshop is about identifying and closing that gap.
- So we are going to look at the procedures we work to when carrying out routine lifts.
- We will be thinking about how to make compliance with those procedures easier and make the procedures more effective.
- We want that layer of the 'Swiss Cheese' working as well as possible—to reduce the holes in the slice!

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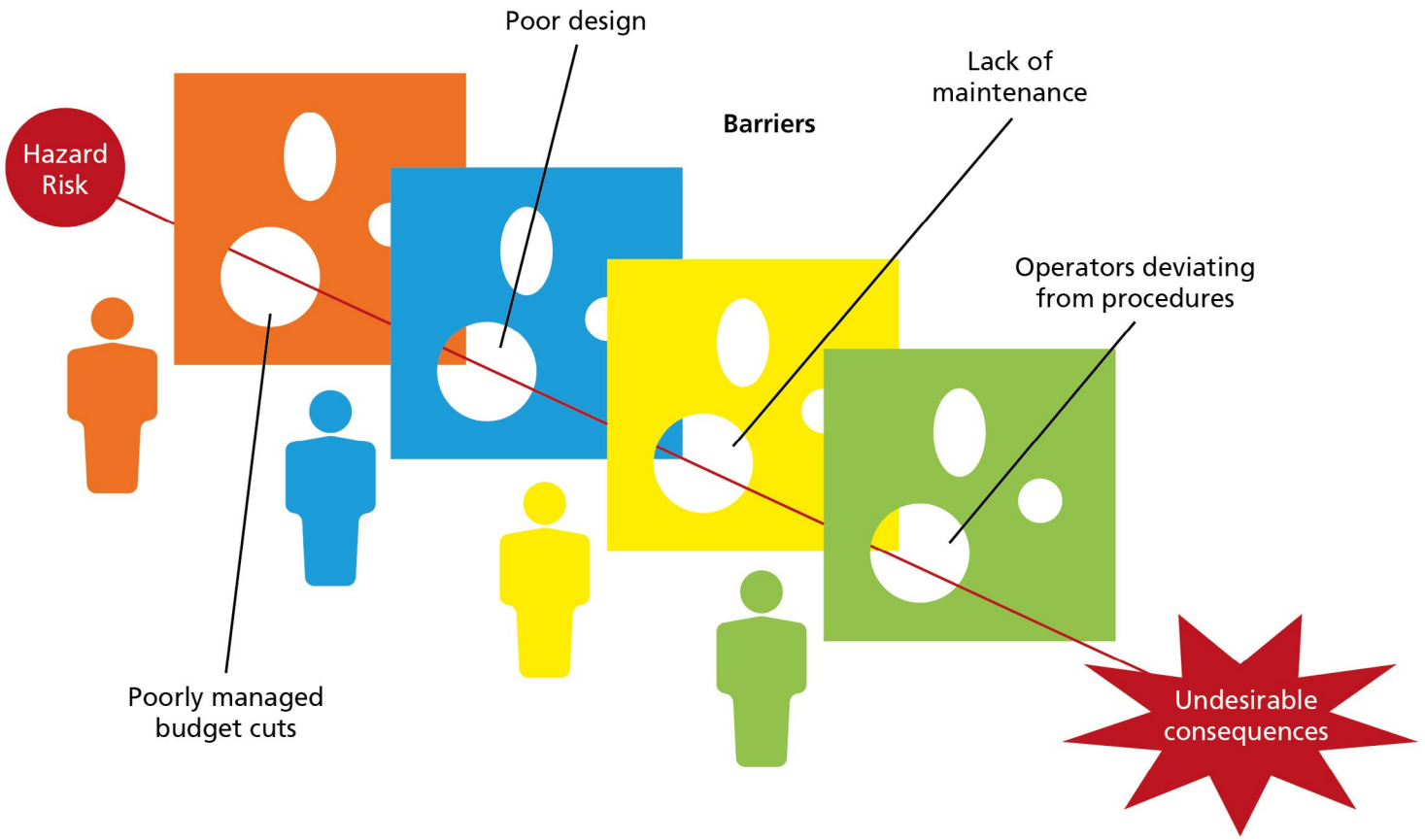
The Swiss Cheese model of how incidents happen



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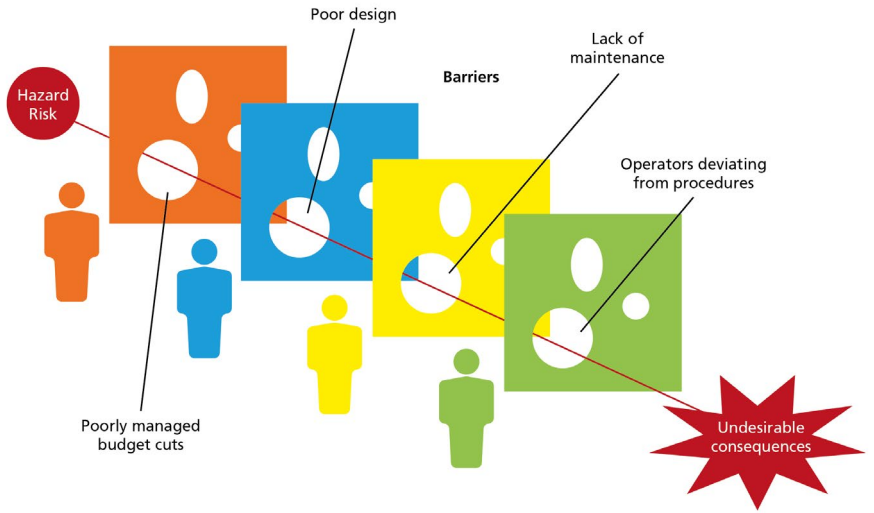
Why lifting goes wrong

1: Non-compliance

Incidents can occur when basic procedures for lifting operations are not complied with. Examples are:

- Lift plan adapted from another task (and assumes the same functions/capability) so it is not detailed enough on some key points.
- No lift plan.
- Pre-use inspection not completed or not thorough (so potential problems not identified).
- Load is too heavy.
- Boom is not retracted before moving.
- Insufficient training is given to the workers.
- Load is rigged incorrectly, or lifting accessory is not appropriate.
- Failure to double-check the slinging arrangement.
- Lack of competent support to the crane operator.



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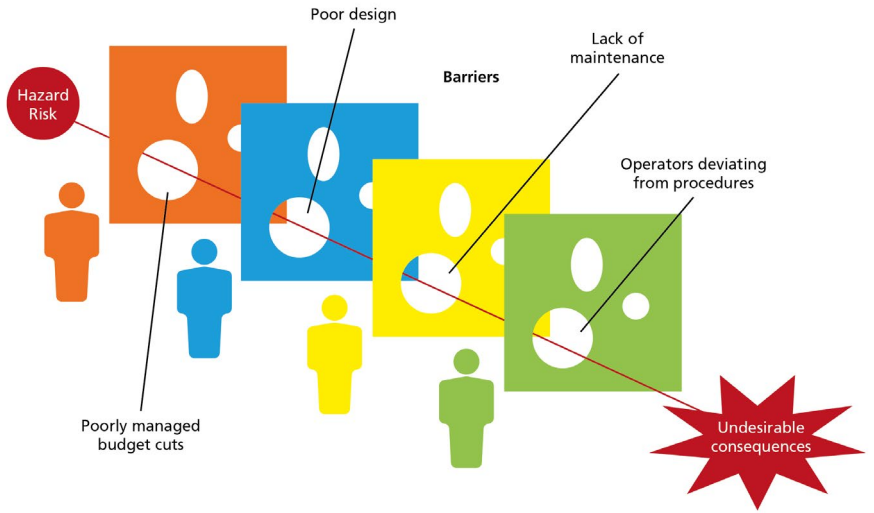
Why lifting goes wrong

2: Underlying conditions

Underlying conditions in the organisation may also make non-compliance more likely, for example:

- Poor design of equipment, e.g. lifting accessory such as sling, was not suitable for task.
- Lack of safeguards to prevent unintentional activation of equipment.
- Changes to equipment.
- Lack of mechanisms to stop equipment being damaged during operation.
- Equipment supplied and introduced without any operating instructions or specific user training.
- Safety features that are not immediately obvious to somebody unfamiliar with equipment.
- Offshore harsh environment, very often windy.
- Inappropriate attitudes to safety—safety culture, e.g. production pressure vs. safety.



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Types of non-compliance considered in this workshop

There are two main types of non-compliance:

– Mistakes (sometimes known as error).
– Violations (non-compliance).
– The key difference between mistake and violation is that violation always includes an element of intention.

There are several sub-categories of both types, which we will explore in this workshop.

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Your perspective is important

- Error is normal—we all make mistakes.
- To reduce mistakes and violations we need to fix the system.
- We want to ask WHAT are the causes, not WHO are the causes.
- We want to engage properly with those who actually carry out the work, in working out how to improve.

In other words, we want to hear from you.

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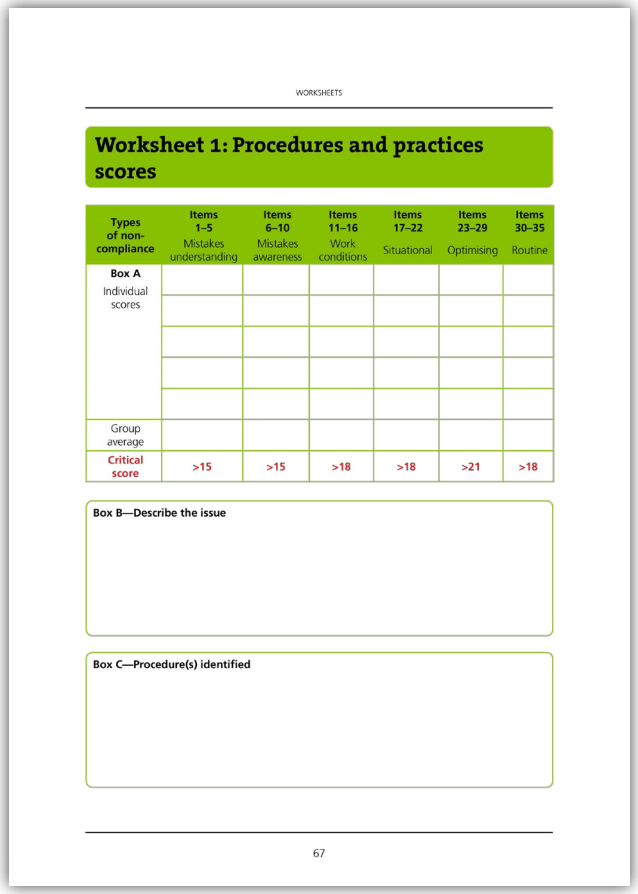
Your perspective is important

Now we are going to find out what types of mistakes and violations are taking place in your lifting operations.

The first step is to complete the questionnaire **individually**.

- Complete all of the survey questions.
- There are six sections. For each section, write your total score in the space provided.
- Compare your total to the critical value given for each section.



WORKSHEETS

Worksheet 1: Procedures and practices scores

Types of non-compliance	Items 1–5 Mistakes understanding	Items 6–10 Mistakes awareness	Items 11–16 Work conditions	Items 17–22 Situational	Items 23–29 Optimising	Items 30–35 Routine
Box A Individual scores						
Group average						
Critical score	>15	>15	>18	>18	>21	>18

Box B—Describe the issue

Box C—Procedure(s) identified

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What does the Procedures and practices questionnaire measure? (1)

- **Rule-based mistakes due to lack of understanding**
  are likely to occur when factors such as difficult language or many cross-references to other procedures make them difficult to understand.
- **Rule-based mistakes due to lack of awareness**
  are likely to occur if procedures are not accessible, or people are not sufficiently familiar with them, so they act as if the procedures do not exist.
- **Rule-based mistakes due to worksite conditions and environment**
  are likely to occur when people work in conditions that make them more likely to forget to follow the procedures, such as when there is information overload, or in unfamiliar work situations.

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What does the Procedures and practices questionnaire measure? (2)

- **Situational violations**
  occur when it is impossible to get the work done by strictly following the procedures due to lack of resources.
- **Organisational optimising violations**
  are done for the benefit of the organisation—getting the job done faster, cheaper, pleasing the boss, meeting a performance target.
- **Personal optimising violations**
  are done to reach a personal goal—getting the job done more conveniently, finishing work earlier.
- **Routine violations**
  can occur when procedures are frequently not followed because they are felt to be irrelevant or because people no longer appreciate the dangers. Violations can become routine for a group of people ('everyone does it that way') **or** for a specific individual ('I always do it like that').

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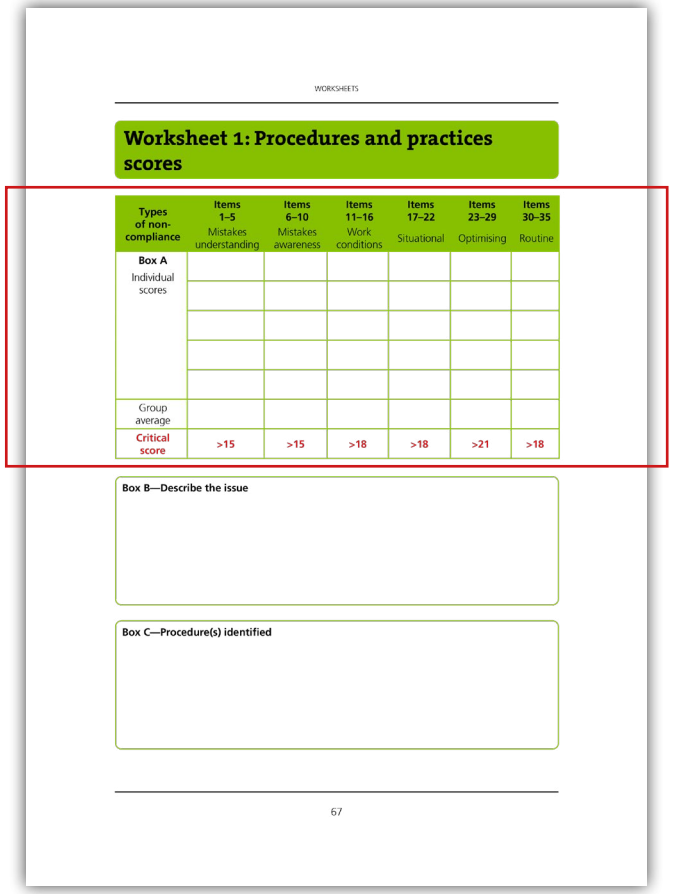
Procedures and practices exercise (2a)

Use Worksheet 1.

As a group:

- Put everyone's individual score for each section in the corresponding area of **Box A** on Worksheet 1: Procedures and practices scores.
- Next, calculate your group average for each section and enter that in the appropriate box for each section.
- If that average is HIGHER than the critical value, it indicates that, as a group, you think there is a problem with that type of mistake or violation in routine lifts.



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Box B—Describe the issue

Box C—Procedure(s) identified

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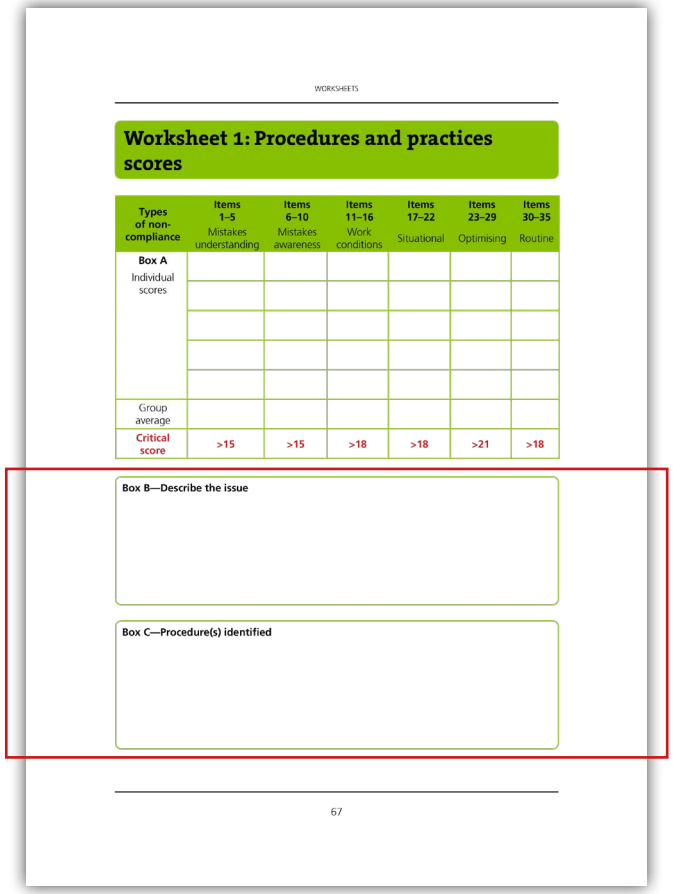
Procedures and practices exercise (2b)

As a group:

- Select one of those types where there is a problem, and refer back to the questions in the survey related to it.
- Select two or three questions that you think are the reasons this mistake or violation type was given a high score. Write those questions in **Box B**.
- Then decide which specific procedure(s) related to routine lifts are not always complied with, for those reasons. Write the name of those procedures in **Box C**.



WORKSHEETS

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Box B—Describe the issue

Box C—Procedure(s) identified

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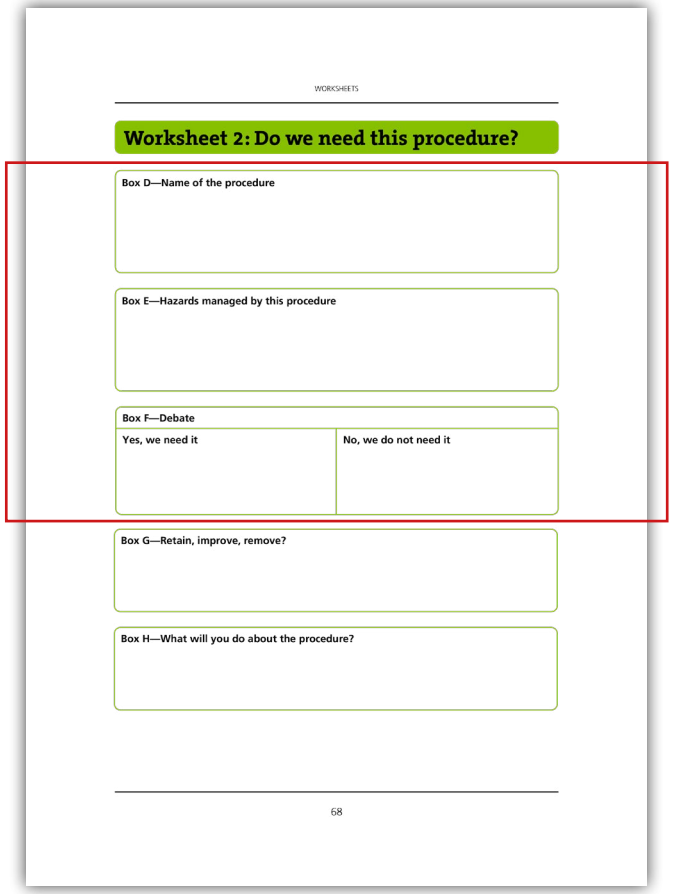
Debate: the process

Use Worksheet 2. As a group:

- Select one of the specific 'problem' procedures you have identified. Write it in **Box D**.
- What hazards does the procedure manage? Write them in **Box E**.
- Decide by debate whether the procedure is needed or not.
- Each group puts their best arguments in **Box F**.
- Possible decisions:
  - Retain.
  - Improve.
  - Remove.



WORKSHEETS

Worksheet 2: Do we need this procedure?

Box D—Name of the procedure

Box E—Hazards managed by this procedure

Box F—Debate

Yes, we need it	No, we do not need it

Box G—Retain, improve, remove?

Box H—What will you do about the procedure?

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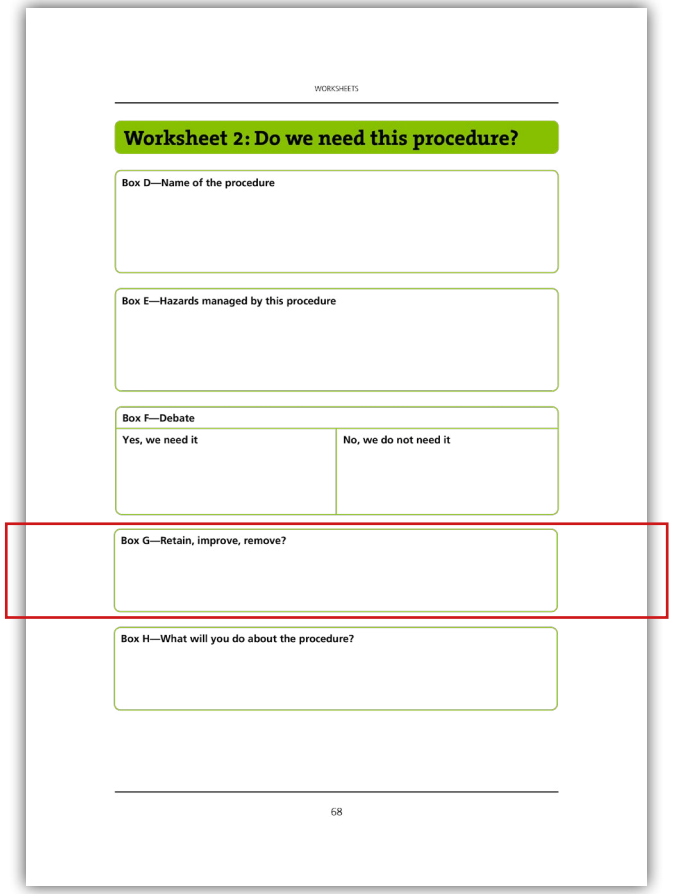
Debate: possible results

If you decide as a group to:	then you must:
– retain the procedure as it is.	– consider how to increase compliance.
– improve the procedure.	– consider how to review and reframe the procedure itself.
– remove the procedure.	– consider how you will still control the hazards.

Write in **Box G** of Worksheet 2 which one you choose.



WORKSHEETS

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Yes, we need it	No, we do not need it

Box G—Retain, improve, remove?

Box H—What will you do about the procedure?

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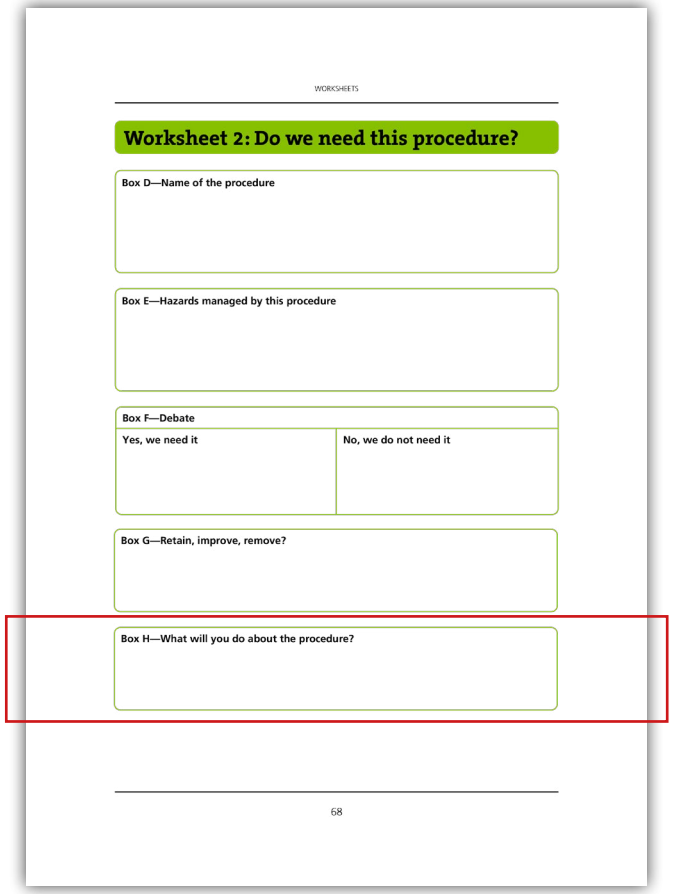
Slide 37

Click for Slide 37 Presenter Notes

Debate: getting into action

- If you choose to **retain** the procedure as it is and increase compliance, use **Worksheet 1: Procedures and practices scores**.
- If you choose to **improve** the procedure, use **Worksheet 4**: Potential solutions to guide a discussion of possible improvements.
- If you choose to **remove** the procedure, discuss the consequences of removal and how to ensure that all hazards will still be controlled.
- Write down what you decide to change in **Box H**.
- Whichever way forward you choose, you must complete an **Action plan** to record how those changes will be made.



WORKSHEETS

Worksheet 2: Do we need this procedure?

Box D—Name of the procedure

Box E—Hazards managed by this procedure

Box F—Debate

Yes, we need it	No, we do not need it

Box G—Retain, improve, remove?

Box H—What will you do about the procedure?

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Slide 38

Click for Slide 38 Presenter Notes

Worksheet 3: Action plan

Questions to address	Actions
What are you going to do about the procedure: replace, revise or comply?	
Who is going to do it?	
How will you do it?	
Who will review your action plan? Do you have the support of your company management?	
When will the accepted plan be carried out?	

Click for Slide 39 Presenter Notes

Close of workshop

- Thank you for taking part in this workshop.
- This is not the end of the process.
- If you have identified more than one type of non-compliance, or more than one 'problem' procedure where improvement can made, there is more work to be done.
- At a later date, you can choose another issue that was identified today (from **Box B**), re-visit the debate and create another action plan.

Click for Slide 40 Presenter Notes

Additional slides

Background information for facilitators

Reasons for having procedures: benefits

- Complicated jobs.
- Long instructions.
- Non-obvious safety checks and standards.
- Information for safe and effective operation.
- Define the order of order when alternative sequences are possible.
- Define common work practices.
- Ensure everyone ‘plays the same game’.
- Information transfer as new people arrive.
- Legal compliance for the company.

Click for Slide 42 Presenter Notes

Aspects to consider when following the rules

- Difficulties in making the correct selection of lifting equipment and correct accessories.
- Classification of lifting operation.
- Appropriate information for lift planning is available.
- All pre-lift checks are completed.
- All lifting equipment is certified and inspected.
- Pre-task briefing carried out.
- Over-crowding of hooks.
- Personnel positioning.
- Dynamic conditions; time pressure.
- Following maintenance regime.
- Equipment operated by personnel without the required training, or outside OEM specifications.
- Inspections not carried out, pre- and post-use; defect not fixed.
- SWL/WLL complied with.
- Multiple lifts in same area.
- Management of Change issues.
- Variations to plan during task.

Click for Slide 43 Presenter Notes

Toolbox

What is Toolbox?

Toolbox puts safety in your hands, quickly connecting global users to health and safety insights.

It holds incident lessons shared by global companies and safety information for you to use at work every day, helping you and your team to work safely.

How will Toolbox help you?

Toolbox provides safety information that is:

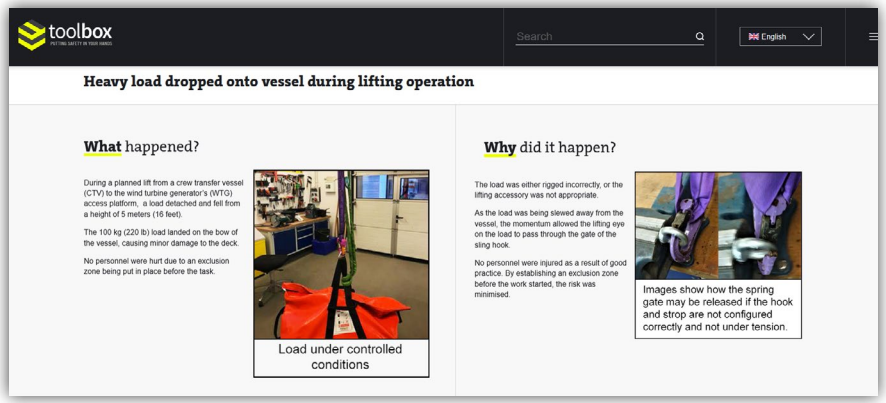
- What you need.
- When you need it.
- Right for you.

It gives you control by putting safety in your hands.

Its focus is on lifesaving, fatality prevention and high-risk activities.

Link to the G+/DROPS reliable securing booklet:
gplusoffshorewind.com/__data/assets/pdf_file/0017/641042/Web-version-G-adaptation-of-DROPS-reliable-securing_LM.pdf

Other resources are available on the DROPS website:
https://www.dropsonline.org/



To find more about Toolbox please visit:
https://toolbox.energyinst.org/home

To submit any content you would like to share with the global energy industry please go to:
gplusoffshorewind.com/work-programme/learning-from-incidents

All incidents shared through Toolbox are anonymised.

Click for Slide 44 Presenter Notes

Pre-job lifting operation checklist

- Does everyone understand the relevant procedures?
- Does everyone understand the pre-job briefing?
- Carry out a pre-job inspection of the equipment.
- Ensure all safety devices are working.
- Is it clear who is the person in charge?
- Is everyone competent for their role?
- Is there a current lift plan?
- Does everyone understand the environmental limits for the lift?
- Is the lift area clear and controlled?
- Are signals and communications methods clear and agreed?

Click for Slide 45 Presenter Notes

Presenter notes

Slide	Notes
Slide 1:	Title slide—display this before the workshop starts and you are waiting for participants to arrive. It's important to have the right mix of participants in the workshop. For example, with the Work as Imagined (WAI) vs. Work as Done (WAD) discussion—there will be different perceptions based on who is in the workshop—the gaps are the holes in the Swiss Cheese (see **Slide 26**). Attendees: people who hold roles and responsibilities, e.g. technicians, APs, slinger banksmen, crane ops, members of the team involved in the lifting operations, who follow the lift plan. Technicians know about the detail of the operations. You need to have people who are familiar with how the lifting operations actually happen to bring the reality of the workplace into the workshop.
Slide 2:	Suggested timings for the sections of the workshop: Introduction: 20 minutes Basic lifting operations: 40 minutes Break for 10 minutes Using procedures to manage risk (WAI vs. WAD, Swiss cheese): 45 minutes Optional break for 10 minutes Improving compliance and procedures, debate: 60 minutes Actions to improve: 15 minutes Wrap-up and Close of workshop: 5 minutes If participants are from the same company, or who work together, there may be a lot of discussion about company specific issues. Therefore, we recommend you allow for a half-day workshop (3.5 hours), but it may take less time than this.
Slide 3:	The introduction explains why this workshop was developed and why it is needed now.
Slide 4:	This slide describes the G+ Global Offshore Wind Health and Safety Organisation and the overall aim of the G+. Present this slide briefly to ensure participants understand who developed the workshop.

Slide	Notes
Slide 5:	Feedback from the UK regulator (HSE) indicates that this type of lifting needs attention across the industry. Some companies may call these routine, day-to-day lifts something else, for example 'auxiliary lifts'. **Ask the participants:** what do you call these lifts in your operations? It may not occur to the participants that they are already at work when they are getting stuff to the work sites as well as when they are doing their work on the turbine/substation/etc.
Slide 6:	THIS SLIDE MAY BE HIDDEN BECAUSE YOU ONLY NEED TO SHOW IT TO MANAGERS IF THEY ARE THE PARTICIPANTS OF THE WORKSHOP. **If you start with this data as a reason for doing the workshop with technicians they may be challenged straightaway, and may disengage from the workshop and say nothing. The data does not convey the message to these people well.** It is worth mentioning that this data is only what is recorded in the categories displayed on the slides—some incidents that have been classified under other categories may also be linked to lifting. Highlight the point that some lifting-related incidents may fall into those other categories, and so the total number of lifting-related incidents may actually be higher than what is presented in the chart.
Slide 7: (Slide 7 notes continue on next page)	This slide is to make sure that participants know that this workshop is focused on routine lifts, **not** major component lifts. This may also be called 'mobilisation'. **Normal, Day-to-Day, Routine, Repetitive, Auxiliary Lifts** These include lifting operations where the load characteristics are considered straightforward, and there are no significant hazards within the working area or on the access route for the crane to the working area. **Ask the participants to give you some examples of these lifting operations from their work.** You can also share some of the examples below with participants: – Lifting of standardised goods; intended and suitable for safe lift (e.g. pallets, containers). – Lifting of loads with CoG and gross weight known or easily estimated. – Operations where standard rigging and slinging practices can be applied. – WTG Foundation Davit crane lifts of e.g. pallets. – Nacelle crane lifts of e.g. lifting bags (of equipment). **Check if the participants are clear about the distinction between routine lifts and major component lifts.**

Slide	Notes
Slide 7: (continued)	**ADDITIONAL INFORMATION—IF NEEDED:** **If you need to elaborate on the distinction between routine lifts and major lifts, here is some information about them (you could also ask the participants to tell you how they are different).** **Major component complicated, complex lifts** These lifts are lifting operations where: – the crane is used to lift complex loads or persons and significant hazards have been identified either with the load, with the working area or access route of the crane, or – two or more cranes are used to lift a load, or – the lifting operation is carried out at a location with exceptional hazards. **Examples of these lifting operations:** – Lifting of loads with unknown gross weight and CoG. Engineering input is required. – Lifting of complex shape or a load with CoG offset or variable lifting point loads. – Tandem crane lifting. – Lifting of main components, e.g. hub, generator, nacelle, tower, blade, foundation, transition piece, offshore substation. – Operations where standard rigging and slinging practices do not apply. Engineering input is required. – Lifts conducted in difficult or restricted areas.
Slide 8:	This slide is a summary of the introduction section, and to introduce the focus on some of the behavioural aspects related to routine lifting activities. This relates to '**how work really gets done**' (see 'Routine, day-to-day lifts: the reality?') which is elaborated on later in the workshop. In this workshop, we are also considering how the technical and design aspects, and the systems and processes, affect how work gets done.
Slide 9:	This is where you need to be sure that the participants feel they can be open and honest in the workshop. If you have managers/supervisors and their reports together in the workshop, you may need to put them in separate groups for some of the discussions and exercises during the workshop. **IMPORTANT:** – Don't make assumptions about what the participants do or how they work. You'll get called out for it and the participants may not engage with the workshop.

Slide	Notes
Slide 10:	This section aims to: – Get participants to describe what the lifting operations are in their work. – Establish a shared understanding of what is involved in basic lifting operations with participants. – Encourage participants to think about how lifting operations really take place. – Identify what the risks are in their lifting operations.
Slide 11:	5 minute 'shout out' session **Facilitator writes down on a flipchart or shared slide what the participants say.** – Be aware that different groups will do different types of lifting operations. – Ask them what sort of routine lifting they do, e.g. what lifting equipment do they use, what are the different types of loads they lift. **Purpose of slide:** it is important that participants have a shared understanding of the lifting operations that we are going to focus on in the workshop. The output may be useful to refer back to in later sessions when you ask them about the different aspects of their lifting operations. **This allows for different audiences in different locations to be equally engaged and involved—by getting their understanding of what lifting operations are for them.** There are different groups of people who do these lifting activities, e.g. contractors, OEMs or technicians.
Slide 12:	This is a slide to introduce the main points of a safe system of work for lifting operation, according to industry guidance. This applies to all lifts, including the routine lifts that we are discussing in this workshop. **Ask the participants:** is this guidance familiar to you in your lifting operations? Do you have guidance like this in your company/organisation?
Slide 13:	**This is a facilitator resource slide—it may be hidden.** This is UK HSE law from industry guidance and applies to any kind of lift, including the 'getting my stuff to work' routine lifts. **This slide may be useful if:** – People do not think that that the guidance and legislation on the previous slide applies to their routine lifts. – There are HSE specialists in the group—**it is best to avoid a lengthy discussion of regulation in this workshop.**

Slide	Notes
Slide 14:	**This slide unpacks the points on Slide 12 'Basic lifting operations: what should happen'. This slide is used for a 5–10 minutes 'shout out' session using the following questions.** **Ask the participants:** – Do you recognise the activities these questions ask about? Do they usually take place in your workplace? – Who are key people? What are the key roles? Who is involved in a lift? – Which of these activities usually go well? – Which do you find difficult? **Example question if you need to start the discussion**: are there formal lift plans for all routine lifts? E.g. the bags that go to a nacelle? Really? (Perceived reality vs. actual reality—do managers think this happens?) Who thinks about the lift plans? **Remember to mention the set-down area** for the load after lifting and disconnection; e.g. a load being placed on top of a bag so that it rolled off. These can be the things we don't think about at the end of a lift. It is not a standardised activity. **Note:** Technical Authority, Appointed Person (AP) (where appropriate/ required)—you may need to consider what this role is called in different countries and regions. The AP may be someone who is not usually based at the worksite, but is an experienced lifting engineer and the technical expert on lifting operations.
Slides 15 and 16:	**Examples of the reality of lifting operations** **The previous slides were about how lifts SHOULD happen. But what happens in REALITY?** **Encourage the participants to start talking about the reality of lifting operations in their workplace.** **Ask the questions on the slides:** – Do they see the risk in these smaller lifts as well? – What would be the outcome or consequences in the examples? **Purpose of the slides:** you need to get the participants in thinking the 'what can go wrong' scenarios in the workshop and to talk about what they see as risk in lifting operations. **Note:** the DROPS calculator can help to illustrate potential consequences of dropped objects, e.g. the 20 kg weight in the image on the right, if needed. The examples are taken from incidents that are documented in the Energy Institute Toolbox website. (Slide 44 has information about Toolbox.)

Slide	Notes
Slide 17:	**This is a facilitator resource slide and may be hidden.** **This slide has the description and learning from the carabiner example on the preceding slide. ONLY SHOW IF YOU NEED IT AS BACK-UP INFORMATION.** **There is no need to go through this slide in the workshop unless it if necessary for understanding the carabiner unsafe lifting example.** This example is from an incident that is documented in the Energy Institute Toolbox website. Slide 44 has information about Toolbox.
Slide 18:	**Purpose of this slide:** the risks are the same for major lifts and routine lifts, but there may be a difference in the recognition of risk related to the different types of lifts. The potential for harm is the same in the routine lifts as in the big lifts. **Ask the participants** to list/shout out the hazards/risks they have to deal with in their lifting operations. Write them down on a flip chart or shared screen/ whiteboard. It may be useful to refer back to these later in the workshop. **Up to 5 minutes.** Ask them to identify the Top 3 or 5 hazards in their lifts, or select the Top 3 **or** 5 from their list if they have made many suggestions.
Slide 19:	**Use this slide alongside Slide 18 IF YOU NEED IT.** These are factors that can increase risk during smaller, routine lifts. Use this as a list of prompts or suggestion if the participants find it difficult to identify specific hazards and risks when you ask them for the Top 5 risks in their lifting activities.
Slide 21: (Slide 21 notes continue on next page)	This exercise builds on the previous slides, and its aim is to get the participants to identify what their 'rules and procedures' for lifting operations are, and which ones are difficult to use. These procedures will be considered in the next part of the workshop. **Allow up to 10–15 minutes for this exercise.** **Ask the group to list the main rules and procedures for their routine lifting operations.** **Purpose:** getting the participants to identify the procedures that they use in their workplace in this step allows for differences between companies and countries/regions. The same risks have to be managed across global regions, but mitigation methods might vary. **If they just say 'we have a lifting procedure'**, you may need to dig a bit deeper and ask these questions: – What is in that procedure? What does that look like? What are the elements of the procedure? What activities does it cover? **Ask which procedures they have identified as more difficult to use/ follow, and for what reasons.**

Slide	Notes
Slide 21: (continued)	**Here are some examples if you need to prompt the group:** – Point of work risk assessments. – Method statements and work instructions. – 'There is no procedure / it's just what you do / it's a routine task'. – Maintenance, inspection, equipment-related procedures, electrical isolations. – Rules and guidance related to weather conditions.
Slide 22:	**Purpose of slide: it is important to clarify what we mean by 'procedures' in this workshop.** The previous slide has identified the procedures that the group participating in this workshop use.
Slide 23:	This slide introduces the idea of rules and/or procedures as one way of keeping everybody safe. Procedures are a key part of any organisation's safety management system (SMS). When we are trained, and learn the recommended way of carrying out a task, this ensures consistency, predictability and effectiveness. However, to err is human, and everyone makes mistakes sometimes. Organisations often implement safe systems of work to try to prevent people from making mistakes, and to protect them from the effects of any mistakes that do happen. However, organisations too are imperfect, and so the systems and processes they develop in order to keep people safe can also (unintentionally) make non-compliance of various types more likely to happen.
Slide 24: (Slide 24 notes continue on next page)	– The solid line represents work performed the way the organisation believes work should happen according to its system and processes. Think of the 'Work as Imagined' line as perfect work—with perfect workers, perfect weather, perfect tools and perfect processes. – The dotted line represents reality, and in order to be successful, workers learn to adapt the processes and procedures to match the work they are required to do. – As the gap between the two widens, the level of risk increases. – An example of how this gap can increase: one bag is used on a hook, then it goes to two bags, then three, then four bags—then eventually this leads to a dropped object because no one asked 'What if the bags drops off?' because nothing went wrong with the increased risk. – This workshop is designed to identify those gaps (related to procedures). – The more we know about how work actually happens, the better we can close the gaps we have identified.

Slide	Notes
Slide 24: (continued)	**Additional facilitator information about WAI vs. WAD (DOES NOT NEED TO BE PRESENTED):** – The gap between work as planned and work as performed gives information about the reality of safety and operations in an organisation, and can inform how to plan work better the next time. – There can be a lack of knowledge in organisations about the reality of the work environment. Workers adapt to this reality and improvise solutions so they can get the job done. This results in them dealing with hazards that are not planned for, and risk that is not mitigated.
Slide 25:	– **Organisations plan for the work to be carried out 'as imagined'**, e.g. hazard identification work, job hazard analysis (TRA, JSA), training and competency. – Simply reacting to problems by asking for better planning is not enough. – **Real learning comes from understanding the difference between 'Work as Imagined' and 'Work as Done'.** – That is why it is useful to understand the reality of (lifting) operations in order to improve safety and operational performance. – The more that is known about how work actually happens in reality, the better prepared an organisation will be to support workers to work safely in practice. **Ask the group:** **What is the difference between 'Work as Imagined' and 'Work as Done' in your day-to-day lifting operations?** – How does the gap vary for different lifts and different situations? The final point about the Swiss Cheese is explained on the following slide.
Slide 26:	1. Explain the Swiss Cheese model to the audience. 2. You can either use the words below or show the animation available at: https://heartsandminds.energyinst.org/__data/assets/file/0019/26605/Swiss-cheese.mp4 Organisations develop barriers that protect people/assets from the dangers that can be encountered during work activities. Ideally each barrier should be impenetrable. In reality however, they resemble slices of a Swiss Cheese; they have many holes that constantly move, open and shut. When all holes line up (meaning all the defences fail), an incident occurs. Rules and procedures are an important layer in the Swiss Cheese. However, non-compliance happens in all organisations. When people fail to follow a procedure, for whatever reason, an essential control is being removed from the system and the risk of an incident increases. It is important to understand the reasons why people break the rules or find it difficult to follow the procedures. This will help you identify the gap between 'Work as Imagined', which is how the work is described in the SMS, and 'Work as Done', which is what actually happens day to day. **Ask the group for some examples of their 'barriers' and the 'holes' in those barriers.**

Slide	Notes
Slide 27:	This slide has examples from recent incidents of how lifting goes wrong related to different layers of defences in the system)—i.e. the slices of the Swiss Cheese. **It shows that it is not just due to the operator/technician.** **Ask the group:** Have you experienced incidents like these in your lifting operations? If they say 'There was no plan', ask the participants how they do this type of activity when there is no plan. The examples in the slide were taken from: https://toolbox.energyinst.org/c/presentations/unfamiliar-equipment-leads-to-oxygen-cylinder-dropping-17-metres-55-feet https://toolbox.energyinst.org/c/presentations/crane-operator-accidently-knocks-lever-leading-to-dropped-750kg-weight https://toolbox.energyinst.org/c/presentations/heavy-load-dropped-onto-vessel-during-lifting-operation https://toolbox.energyinst.org/c/presentations/cranes-topple-over-when-basic-lifting-rules-are-not-followed
Slide 28:	Refer again to the Swiss Cheese model: we can think about how lifting goes wrong related to different layers of defences in the system, not just the operator/technician. **Ask the group:** – Have you experienced underlying conditions like these in your lifting operations? The examples in the slide were taken from: https://toolbox.energyinst.org/c/presentations/unfamiliar-equipment-leads-to-oxygen-cylinder-dropping-17-metres-55-feet https://toolbox.energyinst.org/c/presentations/crane-operator-accidently-knocks-lever-leading-to-dropped-750kg-weight https://toolbox.energyinst.org/c/presentations/heavy-load-dropped-onto-vessel-during-lifting-operation https://toolbox.energyinst.org/c/presentations/cranes-topple-over-when-basic-lifting-rules-are-not-followed
Slide 29:	This slide introduces the two main types of non-compliance: **At this stage our focus is on error/mistake and violation** 1. **Error** which includes several types of **mistake.** In a mistake, the person does what they planned to do, but fails to achieve the intended outcome because the plan was wrong. In other words: performing the wrong or incorrect action while believing it to be right. 2. Intentional non-compliance, which is sometimes known as a **violation**, including several sub-types that we will explore during this workshop.

Slide	Notes
Slide 30:	Assure all participants that the workshop is a safe space, as at the beginning of the workshop. This point is especially important after the introduction of mistakes and violations. Remind participants to be open and honest in their answers to the questionnaire they are about to complete. Their scores are anonymous. Do not ask for anyone's name.
Slide 31:	– Ask all participants to complete Worksheet 1: Procedures and practices questionnaire, openly and honestly. – Tell participants to compute their own total score for each of the six sections in the questionnaire and to enter their section totals in the box on the right hand side. An example, with sample answers, can be seen on **page 70**. – Then, use the two following slides to explain to participants what each of the questionnaire sections is assessing. – Ask each person to compare their personal section total to the critical value given for each section so each individual can see what types of non-compliance they think are taking place. – The purpose of comparing their own scores for each section with the critical value for that section is to get an understanding of why each person thinks things are going wrong. – Remind people to think about near misses as well—things that are referred to in the questionnaire relate to these too, not just incidents.
Slide 32:	This slide and the next one show the seven types of non-compliance measured in the Procedures and practices questionnaire. Some examples of the three types on this slide you may want to use: – **Rule-based mistakes due to lack of understanding**: making a mistake on a government tax form. – **Rule-based mistakes due to lack of awareness**: unaware of a recent change to a local speed limit. – **Rule-based mistakes due to worksite conditions and environment**: unclear signs and signals; confusing traffic signs that give ambiguous information. (There is more detail about worksite conditions in the Energy Institute Hearts and Minds 'Making Compliance Easier' tool.) **Ask the group to suggest their own examples of each type if they can.**
Slide 33: (Slide 33 notes continue on next page)	This slide and the previous one show the seven types of non-compliance measured in the Procedures and practices questionnaire. Some examples of the four types on this slide you may want to use: – **Situational violations**: using a tool other than what is specified for the job, because the correct tool is not available. – **Organisational optimising violations**: breaking the speed limit to make a 'just-in-time' delivery deadline.

Slide	Notes
Slide 33: (continued)	– **Personal optimising violations**: failing to take the mandatory rest break from driving in order to get home earlier. – **Routine violations**: driving slightly above the speed limit, e.g. at 35mph in a 30mph speed limit (UK roads). **Ask the group to come up with their own examples of each type if they can.** **IMPORTANT:** of the seven types of non-compliance, only personal optimising violations are primarily the responsibility of the individual. For all the other types, the organisation has a role to play in the reasons for the non-compliance. This is why the workshop is about making compliance with procedures easier, and focuses on the organisational context and system in which non-compliance occurs.
Slide 34:	**You will need to use Worksheet 1: Procedures and practices scores** – Ask each person to read out their scores for each of the sections and enter them into **Box A**. – When this process is finished ask someone to calculate the group averages for each section and enter that into the appropriate Group average box on the Worksheet. – If the group average score is **more than** the critical value for any section, then that type of mistake/non-compliance is likely to be an issue for the group. – In choosing which non-compliance type to discuss further, choose one where the group average is higher than the critical value by the greatest amount.
Slide 35:	After choosing a type of non-compliance to discuss, you need to uncover the specific reasons for that mistake or violation occurring. – Refer back to the questions in the relevant section of the Procedures and practices questionnaire that measured that type of non-compliance you are now focusing on. So, e.g., if situational violations have emerged, look at questions 17 to 22. – Encourage the group to select the two or three questions/reasons that they think account for the high section score, i.e. the reasons that this type of non-compliance was seen as an issue. – Write those questions/reasons in **Box B** of **Worksheet 1**: Procedures and practices scores. – Finally, ask the group to name some specific procedure(s) that are not complied with for those reasons, e.g. because of time pressure (Q17) the lifting hook was overloaded with bags. – Write those procedures by name in **Box C**.
Slide 36: (Slide 36 notes continue on next page)	On **Worksheet 1** you should now have a small set of specific 'problem' procedures and the reasons they cause issues. – Ask the group to select one of these procedures and conduct a short debate around it, following the steps in these notes.

Slide	Notes
Slide 36: (continued)	– You will need to use **Worksheet 2: Do we need this procedure?** to record the results of each step in the debate process. – Write the procedure in **Box D**, and the hazards it manages in **Box E**. – Use two breakout groups to have 10 minutes' discussion, and come up with the three arguments for or against keeping the procedure under debate. Write their best arguments in **Box F**. – Allow 5 minutes per side, for each side to put their arguments forward. Then proceed to a vote. If the vote ends in a tie, the facilitator has the deciding vote. **The result of the debate and vote can be one of three decisions:** – retain the procedure; or – improve the procedure; or – remove the procedure. **Hint:** if you have safety specialists in the group, put them in the sub-group that argues why the procedures should be removed. Get them out of their comfort zone!
Slide 37:	1. **RETAIN:** If the conclusion is that the rule or procedure must be kept, then you must try to increase compliance with it. – If improvement of the procedure debated is really not possible, and it must be retained as it is, then examine possible ways of increasing compliance with it. This is covered in detail on **Worksheet 3**. – Write how you intend to increase compliance in **Box H** on **Worksheet 2** (**next slide**). 2. **IMPROVE:** If the conclusion of the debate is that the procedure itself needs to be improved, follow these steps. – Use **Worksheet 4**: Potential solutions to guide a discussion of possible improvements to the procedure itself. – The answers to specific questions in the questionnaire that you recorded in **Box B** on **Worksheet 1** should help with this. – Write the proposed improvements chosen in **Box H** on **Worksheet 2** (**next slide**). 3. **REMOVE:** If the conclusion of the debate is that the procedure is not needed, then discuss the consequences of removal. – How can you ensure that all hazards will still be controlled? – How will you inform everyone involved of this change? – There is a video on the Hearts and Minds website 'Removing the Hazard' that might help. – Write the decisions you make in **Box H** on **Worksheet 2** (**next slide**).

Slide	Notes
Slide 38:	**Important:** you should also encourage the group to consider whether improvements are needed to the workplace in order to manage error-provoking worksite conditions. For example: – Replace normal 'push on'-type transfers from a CTV which almost always require some form of craning activity with 'Walk to work'. This would eliminate most of the craning activity as the sites use 'motion stabilised gangways' from an SOV and powered trolleys to move equipment across to the TP. This is possible unless it's beyond the capability of the trolley. Getting the group to think about worksite conditions, and suggesting improvements, could help with increasing compliance by making the procedure easier to follow. Other examples: – Basic equipment on older wind farms. – Basic bearing on a crane, risk of injury due to equipment. – Fixed cranes, repetitive tasks, fatigue, shift patterns. – Accessing the site requires a lot of effort because of bad weather, lift in turbine, motion sickness. – Actions of others and poor communication to the technicians.
Slide 39:	The final step in the workshop is to complete **Worksheet 3**: Action plan, using SMARTER planning. **Encourage participants to agree on an action plan that will be:** – Specific – Timebound – Measurable – Evaluated – Achievable – Reviewed – Realistic If the agreed plan is something participants can carry out themselves, encourage them to carry their action plan in their pocket or hang it on the wall. This will make the plan prominent and allow the improvement actions to be reviewed regularly. – **Ask the group what they think will make it more likely that the action plan is carried out.** Now that you/the participants know what is causing these issues, what does the company or appropriate manager need to do about it? – It is important to make sure that the action plan is realistic and that actions are supported at the appropriate level of the company. – This is especially important if the workshop participants are technicians, who may not have the authority to change things themselves. **TO MAKE THIS WORKSHOP SUCCESSFUL IT IS ESSENTIAL TO ENSURE THE PLANNED ACTIONS WILL BE FOLLOWED UP, AND TO INCLUDE THE MANAGER/SPONSOR IN THE ACTION PLAN FROM THE START!**

Slide	Notes
Slide 40:	Further issues that have arisen in this workshop, such as procedural non-compliance, can also be addressed in other regular meetings, e.g. – Safety meetings. – Team meetings. – Toolbox talks. **Or** you can hold a meeting to go through the debate and action plan process from this workshop, to identify how to improve another procedure that was identified during the workshop. In either case, you should allow 45–60 minutes for the process, starting with the procedure/rule to be discussed and working through **Worksheet 2**: Do we need this procedure? and the action planning process.
Slide 42:	Consider placing within the presentation as a hidden slide. **This is a facilitator resource slide to help illustrate the benefits of procedures.**
Slide 43:	Consider placing within the presentation as a hidden slide. **This is a facilitator resource slide to help answer the question about those specific procedures that participants identify.** These are more specific and detailed examples from lifting operations which may relate to the two levels of procedures and getting the group to identify the rules and procedures they use in their lifting operations. Management of Change issues could be: – Deviations from standard company procedure, lift plan, work instruction, lift instruction. – Unforeseen work. – Unforeseen changes in site conditions. – Unplanned modifications to lifting equipment or vessel. – Major changes to the sequence of operation. – Environmental (weather) conditions. – Implementation of new systems. – Changes requested by the client, MWS or vessel.
Slide 44:	**We refer to Toolbox in notes in the examples slides, and so have put this slide at the end of the presentation if you need to present more information about Toolbox.** Toolbox is available in English, Spanish, Russian, French and traditional Mandarin. It is currently being translated into German, Japanese and Malay. Link to the G+/DROPS reliable securing booklet: gplusoffshorewind.com/__data/assets/pdf_file/0017/641042/Web-version-G-adaptation-of-DROPS-reliable-securing_LM.pdf Other resources are available on the DROPS website: https://www.dropsonline.org/

Slide	Notes
Slide 45:	These questions are based on a job aid from Shell: '10 questions for safe lifting and hoisting'. You can use these as alternative facilitator questions that relate to 'Key activities in routine lifting operations' earlier in the presentation.

Procedures and practices questionnaire

This questionnaire helps you identify where you may have gaps between 'Work as Imagined' and 'Work as Done'.

In this questionnaire the word '**procedure**' means how the work is meant to be done, whether or not that is written down. (Please refer to Slide 22, 'Point of clarification: what are procedures?' from the workshop for more information.)

In this context a procedure is a document that specifies the correct, effective and safe way of carrying out a task. You may have been trained on the procedures used in your organisation. For example, **a lifting plan** can be seen as a complex procedure, or set of procedures.

The work we are referring to in this questionnaire describes the routine, day-to-day lifts that we have described in the workshop.

Please indicate how strongly you agree or disagree with each statement by circling the corresponding number where:

1 = strongly disagree (SD)

2 = disagree (D)

3 = neutral (N)

4 = agree (A)

5 = strongly agree (SA)

Question number	Notes	SD	D	N	A	SA	Score
1	The procedures are written using words that are difficult to understand	1	2	3	4	5	
2	Some procedures are not clear enough, so I do not understand exactly what I am supposed to do	1	2	3	4	5	
3	Procedures are often written with many cross-references to other procedures	1	2	3	4	5	
4	It is not clear how to apply the procedures	1	2	3	4	5	
5	There is no system to check that people understand procedures before they are used	1	2	3	4	5	
					Critical value 15 **Section total =**		0

Question number	Notes	SD	D	N	A	SA	Score
6	It is difficult to get access to the procedures, (printed copy or online)	1	2	3	4	5	
7	I sometimes have to use a procedure that I was not aware of	1	2	3	4	5	
8	I do not always know which specific procedure to follow	1	2	3	4	5	
9	I am not always informed about new or replacement procedures	1	2	3	4	5	
10	Sometimes I am not told about the procedures that relate to a lifting task	1	2	3	4	5	
					Critical value 15 **Section total =**		0

Question number	Notes	SD	D	N	A	SA	Score
11	Sometimes I am so tired that I make mistakes on a lifting task	1	2	3	4	5	
12	Sometimes we have so much work to do, it is hard to follow the procedures	1	2	3	4	5	
13	Unclear signs, signals, instructions and other information can make following procedures difficult	1	2	3	4	5	
14	We often have to do boring, trivial or repetitive actions during work tasks	1	2	3	4	5	
15	We have to do work in difficult environments such as poor weather, cramped conditions, poor ventilation and poor ease of access	1	2	3	4	5	
16	There is potential for interruptions or distractions when following procedures during a lifting task	1	2	3	4	5	
					Critical value 18 **Section total =**		0

Question number	Notes	SD	D	N	A	SA	Score
17	There are some situations that do not allow enough time to do the lifting task according to the rules	1	2	3	4	5	
18	We don't always get the equipment we need to do the lifting task according to the procedures	1	2	3	4	5	
19	The person in charge tolerates the breaking of rules in some circumstances	1	2	3	4	5	
20	Workforce shortages sometimes result in rules being broken to get the lifting task done	1	2	3	4	5	
21	Supervisors know that in some situations the rules have to be ignored for work to continue	1	2	3	4	5	
22	It is not always possible to follow the procedures exactly and keep the work going	1	2	3	4	5	
					Critical value 18 **Section total =**		0

Question number	Notes	SD	D	N	A	SA	Score
23	We can get the lifting task done quicker by ignoring some of the rules	1	2	3	4	5	
24	The procedures are mainly for inexperienced workers	1	2	3	4	5	
25	Sometimes the best way to do the lifting task is not the way written in the procedure	1	2	3	4	5	
26	Finding different ways of doing work tasks can make them more interesting	1	2	3	4	5	
27	Working around the procedures shows that you have special knowledge of the job	1	2	3	4	5	
28	Working strictly to the plan can be too restrictive	1	2	3	4	5	
29	We have to break the rules sometimes to achieve a performance target	1	2	3	4	5	
					Critical value 21 **Section total =**		0

Question number	Notes	SD	D	N	A	SA	Score
30	Some of the rules are broken regularly	1	2	3	4	5	
31	Shortcuts are accepted when they involve little or no risk	1	2	3	4	5	
32	Team leaders tolerate some everyday rule breaking	1	2	3	4	5	
33	Some of the procedures are just there to provide cover for the company	1	2	3	4	5	
34	Most procedures do not need to be followed exactly to get the job done safely	1	2	3	4	5	
35	Following the procedures does not necessarily make the job safer and more efficient	1	2	3	4	5	
					Critical value 18 **Section total =**		0

Worksheet 1: Procedures and practices scores

Types of non-compliance	Items 1–5 Mistakes understanding	Items 6–10 Mistakes awareness	Items 11–16 Work conditions	Items 17–22 Situational	Items 23–29 Optimising	Items 30–35 Routine
Box A Individual scores						
Group average	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Critical score	**>15**	**>15**	**>18**	**>18**	**>21**	**>18**

Box B—Describe the issue

Box C—Procedure(s) identified

Worksheet 2: Do we need this procedure?

Box D—Name of the procedure

Box E—Hazards managed by this procedure

Box F—Debate

Yes, we need it	No, we do not need it

Box G—Retain, improve, remove?

Box H—What will you do about the procedure?

Worksheet 3: Action plan

Questions to address	Actions
What are you going to do about the procedure: retain, improve, or remove?	
Who is going to do it?	
How will you do it?	
Who will review your action plan? Do you have the support of your company management?	
When will the accepted plan be carried out?	

Worksheet 1: Procedures and practices scores (Facilitator version)

Types of non-compliance	Items 1–5 Mistakes understanding	Items 6–10 Mistakes awareness	Items 11–16 Work conditions	Items 17–22 Situational	Items 23–29 Optimising	Items 30–35 Routine
Box A Individual scores	14	12				
	16	19				
	16	19				
	11	18				
	15	23				
Group average	14.4	18.2				
Critical score	**>15**	**>15**	**>18**	**>18**	**>21**	**>18**

Box B—Describe the issue

Q2 – Some procedures are not clear enough, so I do not understand exactly what I am supposed to do

Q4 – It is not clear how to apply the procedures

Box C—Procedure(s) identified

Lifting operations procedure

Worksheet 2: Do we need this procedure? (Facilitator version)

Box D—Name of the procedure

Lifting operations procedure

Box E—Hazards managed by this procedure

Falling objects, damage loads or equipment

Box F—Debate

Yes, we need it	No, we do not need it
Reason A	*Reason A*
Reason B	*Reason B*
…	*…*

Box G—Retain, improve, remove?

Improve:

Rewrite procedures with those who will use it involved and using pictures

Box H—What will you do about the procedure?

Ensure training on using the procedure is effective by checking comprehension

Worksheet 3: Action plan (Facilitator version)

Questions to address	Actions
What are you going to do about the procedure: retain, improve, or remove?	
Who is going to do it?	
How will you do it?	
Who will review your action plan? Do you have the support of your company management?	
When will the accepted plan be carried out?	

Worksheet 4: Potential solutions

	Problem identified	Potential solutions
Rule-based mistakes: lack of understanding		
1	The procedures are written in words that are difficult to understand.	Rewrite the procedure to simplify. Check that end users understand them. Translate to the local language.
2	Some procedures are not clear enough, so I do not understand exactly what I am supposed to do.	Try to reduce complexity. Use pictures or video. Break complex tasks down into simple steps.
3	Procedures are often written with many cross-references to other procedures.	Minimise cross-referencing. Provide clear links to other relevant procedures.
4	It is not clear how to apply the procedures.	Understand the difficulties in applying the procedure. Review regularly for useability.
5	There is no system to check that people understand procedures before they are used.	Test understanding after briefings, and as part of induction into the team.
Rule-based mistakes: lack of awareness		
6	It is difficult to get access to the procedures (printed copy or online).	Check availability of procedures at the start of a job. Check that everyone knows how to access procedures.
7	I sometimes have to use a procedure that I was not aware of.	Test understanding after briefings, and as part of induction into the team.
8	I do not always know which specific procedure to follow.	Test understanding of which procedures to use at toolbox talks. Check that training covers all the info it should.
9	I am not always informed about new or replacement procedures.	Ensure that changes to procedures are briefed out to all who need to know.
10	Sometimes I am not told about the procedures that relate to a lifting task.	Ensure that people are told about all the rules and procedures that relate to their work.

	Problem identified	Potential solutions
Rule-based mistakes: worksite conditions		
11	Sometimes I am so tired that I make mistakes on a lifting task.	Review working hours, overtime and travel time regularly. Plan for and manage fatigue as with other risks.
12	Sometimes we have so much work to do, it is hard to follow the procedures.	Try to make it efficient and effective to complete the job safely. Discuss expectations with the team regularly.
13	Unclear signs, signals, instructions and other information can make following procedures difficult.	Verify that visual aids and instructions are clear. Check that the correct message is being communicated. Verify that equipment is correctly labelled.
14	We often have to do boring, trivial or repetitive actions during work tasks.	Acknowledge that people cannot maintain high levels of focus for long periods. Acknowledge that high mental workload reduces the length of time people are able to concentrate for.
15	We have to do work in difficult environments such as poor weather, cramped conditions, poor ventilation and poor ease of access.	Check that noise or poor lighting do not reduce effective communication. Improve the physical environment where possible.
16	There is potential for interruptions or distractions when following procedures during a lifting task.	Manage potential distractions especially during critical steps in a task.

	Problem identified	Potential solutions
Situational violations		
17	There are some situations that do not allow enough time to do the lifting task according to the rules.	Check planning allows sufficient time for tasks. Involve those expected to carry out the work in planning it.
18	We don't always get the equipment we need to do the lifting task according to the procedures.	Include a review of equipment availability in planning. Consider the possibility of using alternatives, and the associated risks, in the procedures.
19	The person in charge tolerates the breaking of rules in some circumstances.	Assess whether the procedure can be complied with in an effective way and still get the job done.
20	Workforce shortages sometimes result in rules being broken to get the lifting task done.	Involve those people who do the work in managing the risk of carrying it out with fewer workers.
21	Supervisors know that in some situations the rules have to be ignored for work to continue.	Ensure that supervisors manage any gaps in workforce and/or equipment available before the job starts.
22	It is not always possible to follow the procedures exactly and keep the work going.	Allow for risk-managed variance from the procedure that copes with special conditions.

	Problem identified	Potential solutions
Optimising violations		
23	We can get the lifting task done quicker by ignoring some of the rules.	Review planning so as not to reward shortcuts. Consider revising the procedure with competent/experienced workers.
24	The procedures are mainly for inexperienced workers.	Consider if all restrictions are necessary for experienced workers. If they are, explain the rationale.
25	Sometimes the best way to do the lifting task is not the way written in the procedure.	Ensure everyone involved understands the risks. Revise procedures if necessary to reflect best practice.
26	Finding different ways of doing work tasks can make them more interesting.	Consider allowing extra flexibility to competent people. Discuss changes with those who do the job.
27	Working around the procedures shows that you have special knowledge of the job.	Consider whether all restrictions are necessary for those with specialist knowledge and competence. Discuss changes with those who do the job.
28	Working strictly to the plan can be too restrictive.	Define acceptable flexibility where procedures are too restrictive for some work. Consider documenting the variance to recognise established practice.
29	We have to break the rules sometimes to achieve a performance target.	Plan to ensure time is available to do the work according to the rules. Allow documented variances for competent/experienced workers.

	Problem identified	Potential solutions
Routine violations		
30	Some of the rules are broken regularly.	Find out why the rule is routinely ignored. Ensure everyone understands the risks of not following the rules. Remove or revise the rule if appropriate, while still managing the risk.
31	Shortcuts are accepted when they involve little or no risk.	Ensure people understand the risks, if they feel a shortcut is acceptable. Revise the procedure and revise competency requirements, ensuring risk is still managed.
32	Team leaders ignore some everyday rule breaking.	Find out what pressures (both individual and organisational) make non-compliance attractive. Discuss how risks are to be managed if a variance is allowed.
33	Some of the procedures are just there to provide cover for the company.	Discuss alternative ways to control the hazards. Where hazards are significant, explain the rationale for the procedures.
34	Most procedures do not need to be followed exactly to get the job done safely.	Discuss alternative ways to control the hazards. Consider revising the procedure in a way that still controls the hazards.
35	Following the procedures does not necessarily make the job safer and more efficient.	Revise any procedures that make the job less safe or less efficient.

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