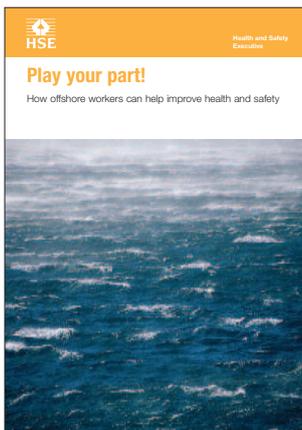


Play your part!

How offshore workers can help improve health and safety



This is a web-friendly version of leaflet INDG421

Foreword

In his report on the Piper Alpha disaster, Lord Cullen recommended:

The regulatory body, operators and contractors should support and encourage the involvement of the offshore workforce in safety. In particular, first-line supervisors should involve their workforce teams in everyday safety.

Note: Throughout this booklet, we use the terms 'workforce' and 'employee' to refer to everyone working offshore, whether for an operator or a contractor.

This guidance, which was originally produced in response to Lord Cullen's recommendation, is intended to help operators, contractors, trade unions, safety representatives and individual employees to co-operate to improve health and safety offshore through the active participation of the workforce.

The Cullen report on the Piper Alpha disaster drew attention to the fact that the failure of people at many levels and in functions across an organisation can contribute to a major disaster. There is a requirement on dutyholders to consult safety representatives in the preparation, revision and review of the safety case. This safety case must contain a summary of how this consultation was carried out.

This booklet has been prepared by the Workforce Involvement Group of the OIAC which is made up of industry representatives - employers, employees, trade unions etc. It draws on examples of good practice and success stories from the industry, involving the workforce in improving health and safety. We hope it makes you think about how well the workforce in your company is involved in health and safety and sharing best practice from the experience of others in your industry.

Offshore operations are carried out in remote locations and in a hazardous environment of continual change. Typically, the employees of several different employers will be working closely together, or in close proximity, and they will need to co-operate with each other. All these factors add to the importance of continuing vigilance and positive planning to establish and maintain good standards.

There are many human factors to consider when operations take place in an environment that is potentially hazardous and this guidance emphasises the importance of a proactive safety culture supported by all who work in, and have an influence upon, that environment.

A strong health and safety culture offshore means everyone taking responsibility for their actions and playing their part.

Section 1 Why workforce involvement is important

The workforce has a role to play and need to understand what is required of them. They must be given the opportunity to raise safety concerns within an encouraging and welcoming culture.

Making sure everything is done properly requires planning and co-operation at all levels.

The law sets out the framework, by identifying key roles:

- employers;
- operators;
- owners;
- contractors;
- individual employees;
- safety representatives; and
- health and safety advisers.

Those responsible for offshore activities. Installation **operators and owners** and other **employers** of people who work offshore - such as contractors - have primary legal duties to ensure the health and safety of offshore workers and all who are affected by their activities.

In particular, on an offshore installation the operator or owner will set policy, provide the main resources for health and safety and co-ordinate management of the operation.

Line managers including front-line supervisors, who act on behalf of those with the primary duties, must understand their personal responsibilities to ensure safe working and be equipped to carry them out.

Individual employees have legal duties to take care of their own and others' safety and to co-operate with management in meeting their obligations. Everyone who works offshore must recognise this personal responsibility and act accordingly.

Offshore workers may elect **safety representatives** to represent them in health and safety matters. Safety representatives have special training and some defined functions, for example they can carry out inspections (with or without management), can be involved in investigating incidents etc.

In general, safety representatives help individual employees to keep in touch with important developments that may affect their health and safety, including the revision, review or preparation of the installation safety case (see Section 5).

Safety committees which include safety representatives and management provide a regular forum for co-operation and effective two-way communication.

Companies have a responsibility to appoint competent **health and safety advisers**. These advisers give expert support to management and can also inform and advise others - including safety representatives and employees.

Case studies

The workforce should be involved because:

They have the most direct contact with work hazards so should know what the problems are at first hand.

A release of 40,000 cubic feet of highly flammable material occurred on an offshore installation when a compressor balance line was not isolated during a maintenance operation. A permit to work (PTW) was issued for the job by a maintenance operator. The permit identified the mechanical and electrical isolations necessary but did not specify the process isolations because the issuer was not aware of the necessary process controls.

The workforce should be involved because:

They are more likely to work safely if they are involved in worksite planning

A man was lucky to escape death when he fell 30 ft through a hole in the drill floor where the rotary table was going to be installed. Fortunately he only suffered minor injuries. The hole was covered by four loose scaffold boards and one slipped when he stood on it. A PTW had been issued for the job but the worksite was not inspected beforehand. Workers should seek assurance that conditions of the permit have been met before starting any work, but everyone has a responsibility to report potential hazards.

How could the people involved have prevented this accident?

Think particularly about how a proper safety plan, which includes rules for inspecting sites, pre-job talks, hazard-spotting routines, training and safe ways of working might have helped.

The workforce should be involved because:

It helps to create a collaborative safety culture and a commitment to safety at all levels of the organisation.

A contractor was working on a scaffolding access platform, carrying out rigging and de-rigging operations. He struck his left foot against part of the turret structure. After suffering increasing discomfort, he reported the injury the next morning to the installation medic who gave first-aid treatment. The injured person (IP) was employed by a subcontractor and had been advised and funded to purchase his own safety equipment by the contract company.

An investigation discovered that the IP's protective footwear did not provide adequate protection to the small toe. Two separate designs of protective boots were tried and only one gave the necessary cover. This highlighted the difference in protection offered by different designs depending on the size and shape of a person's foot.

The facts of the case study are:

- Injured person was new to offshore industry.
- No pre-selected PPE was supplied.
- Self-supplied PPE was not to offshore standard.
- Failure in communication between agency, contracting company and employee regarding the selection and suitability of PPE.

During a pressure testing campaign, the testing offshore personnel from other contractors persisted in crossing the test-limit barriers despite the barriers being clearly set and despite the warnings of the testing crew. The testing crew raised their concerns with the installation operator who also failed to stop the frequent incursions. The testing crew, confident of their employer's support for them to STOP the job, ceased the testing activities and advised that they would not resume testing until they were assured that their barriers would be respected. Their management and the client fully supported their actions and rewarded the positive safety culture.

The workforce should be involved because:

Employers, and others who have duties under the Health and Safety at Work Act, cannot meet them without the input of their workforce.

During a major shutdown, two mechanics were working on the maintenance of a choke valve. They determined that the work required a slight change in how they were tackling the job. They stopped the work, knowing that they were fully empowered to do so and asked the appropriate authority to check that the isolation in place was adequate for the new approach.

This is why workforce involvement is so important!

The following parts of this booklet show ways that the workforce can participate.

Lord Cullen said the whole workforce must be committed to safe working practices.

He picked out the safety representatives and committee system as the most visible way of involving the workforce. Other ways include giving information, improving communication at all levels, good induction and training, and making sure that people feel truly involved in the decisions affecting them.

Section 2 Building a successful safety culture

In an organisation with a continually improving safety culture, everyone makes safety a priority. This influences behaviour and the way that each individual handles new events and decisions. The workforce know, for example, that they are not expected to react to a problem by cutting corners on safety for operational needs.

An effective safety culture needs to have ways of informing and consulting with the workforce. It helps to have a company policy which makes it clear that **everyone has a role to play to improve health and safety**. In the offshore environment, each operator or owner's written safety case must contain a statement of each company's policy and a description of the safety management system to deliver it. This needs to support and encourage the reciprocal and interface arrangements of contractor organisations and their personnel.

Some key elements of a good safety culture are:

- leadership and commitment by all levels of management;
- continual demonstrations of unprompted safety thinking by everyone in an organisation;
- clear expectations for everyone and ways to check they are met;
- effective two-way communications;
- consultation;
- co-operation between operator and contractor employees;
- the adoption of a 'just culture'; and
- good induction and training.

The four 'C's of health and safety culture:

CONTROL

COMPETENCE

CO-OPERATION

COMMUNICATION

The safety culture in an organisation is heavily determined by the visible attitudes and behaviours of directors and senior managers. Top-level commitment must be demonstrated through their actions so that all of the workforce can see that health and safety is taken seriously.

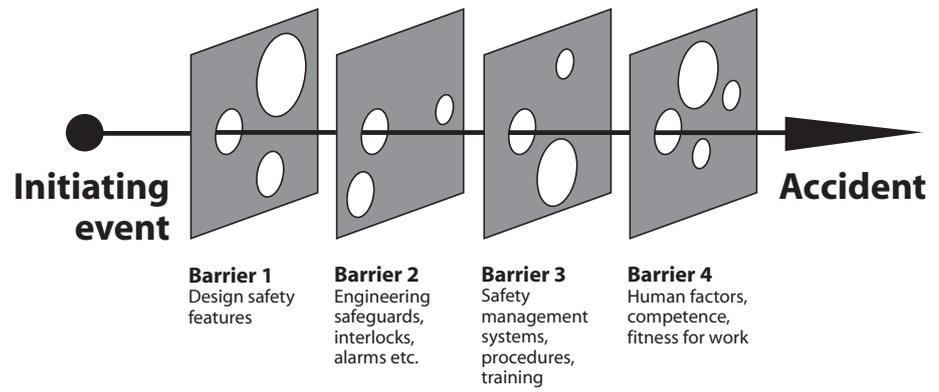
Management need to show commitment by example and in everyday decisions

Health and safety is part of the business process at all levels, including at the Board and NOT as a bolt-on extra.

Everyone should understand the links between hazards and risks AND the barriers that are in place to control them, including their own role - so that they are not tempted to override, ignore or cancel.

Risk assessment is not for somebody else or HSE but for EVERYONE.

Learn from 'near misses'.



This diagram shows a number of barriers - or defences - between an initiating event and the catastrophe that might result if those defences are imperfect, perhaps through a design fault, an overridden interlock, inadequate training, a procedure that is not adhered to, an operator who is not up to the job or is too tired to carry out duties safely.

Section 3 How the workforce can be involved

This is how one company approached workforce involvement:

Everyone in an organisation should be clear about their responsibilities for health and safety. With this company, the process started at the top. Activity was discussed and responsibilities were assigned by the CEO.

The CEO had a personal safety performance contract - as did all members of the senior management team. This meant that clear objectives were identified for him at the beginning of a performance year and he was accountable for his performance against these at his end of year review. As the process continued, cascading through the organisation, personal responsibility for specific activities was agreed with each manager and supervisor.

This ensured that safety and health responsibilities were truly integrated with line-management roles.



Human factor elements: There are many human factors to consider in a hazardous environment.

Control

Control of risks and safe working can only be achieved through co-ordinated action by all members of an organisation. Commitment to clear health and safety objectives is important and people need to know how their performance is going to be measured and monitored. Lord Cullen said the whole workforce must be committed to safe working practices.

Clear responsibilities and co-ordination are particularly important when two or more organisations work together, for example, when contractors are employed to provide goods or services.

Competence

As well as being competent to carry out both their normal duties and any specific safety role, it would be unfair and unwise to ask supervisors to perform any new role unless they're given the relevant skills or training.

Training in these areas enables employees and their representatives to make far more effective contributions to health and safety, whether as individuals or groups, by participating actively in:

- hazard spotting;
- risk analysis;
- problem solving;
- safety case preparation, review and revision;
- incident investigation; and
- inspection and auditing.

Many people - managers, supervisors and safety representatives - need to be trained in how to make presentations, negotiate and run meetings etc, if a culture of real workforce involvement is going to be a success.

In addition to their statutory duty to train safety representatives, one company has started a major initiative to train safety representatives through its Safety Representative Development Programme. The programme aims to:

- Develop jointly with management, HSE and advisers, the role of the safety representatives individually and as a group, promote and improve the health and safety of the whole workforce and improve the efficiency and effectiveness of operations.
- Agree and implement a common approach to improving safety performance, including an action plan to be jointly developed and supported by the safety representatives and management.
- Enable safety representatives to begin to identify and develop skills to help them fulfil their role more effectively.

Everyone in an organisation needs to know about:

- the organisation's health and safety policy and the philosophy underlying it; and
- the structure and systems for delivering the policy.

People need to know and understand the major hazards in an organisation's activities and how the risks are managed. Training helps people acquire the skills, knowledge and attitudes to make them competent in the health and safety aspects of their work.

The effectiveness of training in critical tasks is monitored and assessed, eg by observing behaviour and testing knowledge and understanding to ensure the person can perform the task correctly.

Finally, it is sensible to check how useful training has been.

Has it met the need?

One golden rule - ask the pupil.

One operator said:

'Training is evaluated for effectiveness and necessary improvements made. Was it timely and appropriate? Did it meet the learning objectives? Has it produced the right job performance? Evaluations should be performed by the trainee, together with his or her supervisor.

'All of this increases the safety representatives' confidence in dealing with their constituents and supervisors and these cross-platform contacts are often maintained after the courses have finished.'

Co-operation

Co-operation is particularly important on an offshore installation because, typically, the workers of several different employers will be working closely together and need to co-operate with each other.

Pooling knowledge and experience through workforce participation, commitment and involvement means that health and safety really becomes 'everybody's business'. For example, the safety committee has a role in developing the installation health and safety plan.

It is a legal requirement for all employees to be consulted, not just informed, about the health and safety issues in the workplace that affect them. All representatives must be given paid time off to carry out their duties and to undertake appropriate training; they must also be given adequate facilities in the workplace. However, successful organisations often go further than strictly required by law and actively support and encourage workforce participation in different ways.

One way of encouraging co-operation is to set up teams to look at specific problems.

One company produced a handbook which provided an introduction to risk assessment for the workforce. The handbook explains the role of risk assessment, the production of the safety case, risk assessment techniques and included a full glossary. All the terms included in the glossary were shown in italics throughout the text

Another company created a TV channel for one of their platforms to communicate information about the safety case and other significant events. This consisted of a series of slides, rotating in a loop, which can easily be updated with, for example, safety improvement plans, audits, safety initiatives and performance.

Communication

Clear communication is essential. Though communication is generally a challenging area for organisations, not just on health and safety issues - it is often seen as the single most important area requiring improvement. Two central elements are:

- clear, visible leadership; and
- a common appreciation of how and why the organisation is trying to improve health and safety.

Information should be distributed across the organisation in a way that suits the people receiving it.

Some examples of effective communications are:

- induction;
- face to face, eg toolbox talks - daily, or for each new task, with the supervisor;
- safety alerts;
- handbooks with technical information and control measures;
- safety meetings;

- platform safety committee - one every month or every six weeks to get different views;
- general safety meetings - one per trip, chaired by a safety officer; and
- safety meetings - weekly for a specific work group squad, chaired by the safety representative and minutes taken by the supervisor.

Safety meetings are a good way of getting information across and seeking ideas. The law requires safety committees to meet at least once every three months. Some companies find it worthwhile meeting more often.

How does your company communicate with you?

Is it two-way?

Safety meetings must be well run. For example, meetings benefit from:

- clear expectations;
- the right people attending (those who can contribute and make decisions);
- chairing and participation skills (training can help);
- good time management, so that the meeting finishes its business and concentrates on what is important;
- careful minuting and timely follow-up, where necessary; and
- feedback to others.

Above all, meetings should not be boring! Videos and presentations can help. It can also be useful for members of the workforce to use meetings to describe their own experiences.

Where a workforce has ownership of and involvement in processes to be realised, then many people - managers, supervisors and safety representatives - need to be trained in relevant communication skills. Reflecting this, one operator has launched a Safety Representative Development Programme to improve individuals' communication and presentation skills.

Section 4 Setting and maintaining standards

A successful corporate safety culture is supported by an effective 'management system' - a set of activities that aim to ensure that health and safety is controlled.

Continuous improvement in safety performance is a common goal but to ensure that it is happening SMART (Specific, Measurable, Achievable, Realistic, Time-bound) standards and detailed targets should be set.

For example:

- Are performance standards set?
- Are they right and realistic?
- Are they being met within a reasonable timescale?
- Are they helping us to do what we planned?
- What is our record on accidents, ill health and incidents?

How are you involved in setting and reviewing performance measures?

It is important that employees have a say in agreeing the measures, checking they are met and seeing what lessons can be learnt from them. There is no point in a company deciding what it wants from involving its workforce, how to get it and measure it, unless the company is able to learn the lessons. This includes auditing - collecting information on how well each part of safety management is being done and drawing up action plans to address identified shortcomings. To audit effectively, a company should involve the workforce. This involvement should be described in the company's audit and review policy.

Section 5 The safety case

What is a safety case?

A safety case is a **written document** prepared by the **operator** of a fixed installation or **owner** of a mobile installation. It sets out a description of the arrangements for **managing health and safety** and **controlling major accident hazards** on the installation.

The safety case must show that:

- the management system adequately covers all statutory health and safety requirements, including the management of arrangements with contractors;
- there are proper arrangements for an independent audit of the system;
- the risks of major accidents have been identified and assessed;
- measures to reduce major accident risks to people to the lowest reasonable level have been taken;
- proper systems for emergency arrangements on evacuation, escape and rescue are in place; and
- safety reps have been involved in developing the safety case.

A safety case must be submitted to HSE for acceptance. HSE will issue written confirmation if it is satisfied that the case for health and safety was made clear in the document.

Dutyholders - operators or owners - must keep their safety case up to date. Whenever they plan or make a significant change or revision to the safety case it must be resubmitted to HSE for acceptance. This applies throughout the life cycle of the installation. Dutyholders are also required to undertake a periodic, thorough review of accepted safety cases.

How is the workforce involved?

The *Guide to the Offshore Installations (Safety Case) Regulations 2005: Guidance on Regulations* (ISBN 978 0 7176 6184 8 available from HSE Books) emphasises the importance of the variety of arrangements that operators and owners need and want to make, to ensure that the whole workforce is actively involved in and committed to safe working practices.

This section shows examples of approaches which have been successful.

The Regulations also say that the safety case must contain a summary of how safety representatives have been involved in the review, revision or preparation of the safety case. Examples can be found in *A Guide to the Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989*. Safety representatives must also have access to the safety case contents. In particular, they:

- have access to the complete document; and
- are entitled to a written summary and may take copies of extracts, where needed, to carry out their representative role.

Involving the workforce in safety cases

Examples of company actions

One company treats workforce involvement in the safety case in the same way as workforce involvement in weekly platform safety meetings, quarterly management safety reviews and accident investigations.

- Information gathering - on older platforms, information from 'older hands' proves invaluable in understanding why plant is operated in a particular way.
- Hazard identification and control - benefits of 'hands on' experience. Workers are routinely involved in HAZOPs and WHAT-IF studies, eg a drilling crew considered the consequences of a dropped drill collar, based on an idea from a safety representative.
- Review of safety case studies - draft reports are provided to workers with relevant expertise for review and comment. Team reviews in scheduled working hours are carried out for the safety case.
- Open comment - after team reviews, copies are distributed to onshore and platform work groups for review and comment.
- Workforce presentations - every member of the workforce is given the opportunity to attend a presentation on the safety case.

Benefits include improved awareness and recognition of installation hazards, better understanding of the hazard assessment process and clearer ideas of the ways that safety is managed offshore.

What is HSE's role?

The dutyholder is responsible for the safety case and for controlling risks offshore. HSE decides whether an adequate case has been made for safe operation; the detail will be taken into account and tested in later inspection plans.

During the assessment of a safety case, discussion and review between HSE inspectors and companies will often result in agreement on improvements needed and on timescales. If an urgent problem is found, HSE will want immediate action.

As part of their normal inspection work, HSE inspectors meet safety representatives and others in the workforce to tell them the purpose of the visit and the results of the inspection and listen to any concerns they may raise.

Section 6 Accident case studies

How you can help prevent an accident

A man was seriously injured while replacing a valve in a high-pressure line.

The accident happened when workers on one shift isolated the valve by shutting a valve on either side, and opening the drain-line between. They knew the isolating valves were not operating properly so they closed the drain-line again. They left a message for the next shift that it must be reopened first to blow the line down. The PTW and isolation certificate did not describe the method of isolation in detail.

During the shift handover, the message was not passed on. A fitter (who was unfamiliar with that type of job) removed the clamp bolts holding the pipe flanges together, instead of just loosening them and cracking a joint. Pressure had built up in the line again and a coupling blew apart. The fitter received very serious head injuries and will never fully recover.

An incident with high potential for serious injury or death occurred when, following a number of relatively minor engineering and control system changes, the rotary table on an hydraulic work-over unit spun out of control. Debris thankfully missed the operating crew but they were unable to access the ESD and needed remote assistance to effect the ESD. Following a detailed investigation, it became apparent that the main underlying cause was inadequate change control management and the consequences of incremental changes.

Having read through this guidance, think about how workforce involvement improves offshore safety. Here are some key points to think about:

- participation in risk assessment;
- responsibility for planning and checking the job;
- toolbox talks;
- role of PTW and other written procedures;
- shift handover arrangements;
- competence of everyone involved in the job; and
- learning the lessons for the future from incidents and near misses.

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This leaflet is available at: www.hse.gov.uk/pubns/indg421.pdf.

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