

# Course Descriptor - Health and Safety Representative Training for the Offshore Oil and Gas Industry

Document No: N-04950-GL1581 A445739

Date: 30/10/2020

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## Introduction

Health and Safety Representatives (HSR) play an important role in the improvement of occupational health and safety (OHS) in the Offshore Oil & Gas industry. To ensure HSRs can make the best possible contribution to improving OHS performance there is a legislative requirement<sup>1</sup> to ensure all HSRs undertake training related to OHS that is accredited by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). The following list is a summary of the minimum requirements that an OHS training course must contain.

- The Legislation
  - Role of HSRs, regulator and employer
  - Responsibilities and authority of HSRs
  - Role of NOPSEMA
  - Research skills
- Hazard Identification and Risk Management
  - Identify and control hazards
  - Risk assessment methodologies
  - Risk management tools
  - Hierarchy of controls
- Safety Management Systems (SMS) and Safety Case
  - SMS and Safety Case structure
  - Understanding of concepts and terminology
  - Understanding the Formal Safety Assessment (FSA) process and tools
  - Audit requirements and processes
- Incident Investigation
  - Incident reporting
  - Root cause analysis methodologies

<sup>1</sup> See Schedule 3, Section 30: Training of health and safety representatives, of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*

- Recognising a “good” investigation
- Incident data
- Communications
  - Communication / presentation skills
  - Negotiation Skills
  - Running effective meetings
  - Conflict / issue resolution
  - Time management

For a HSR training course to be accredited by NOPSEMA it shall, as a minimum, be aligned with the course descriptors outlined in this document. To maintain a level of quality assurance the accredited course should be presented by a Registered Training Organisation (RTO).

## Information for the Trainer

### Scope

The course is to be developed for presentation to HSRs working in the oil and gas industry with an emphasis on the offshore working environment and legislative regime.

### Health and Safety Representatives

HSRs are employees within the offshore oil and gas industry and have been elected or have volunteered to represent a designated work group. The HSR will, in the main, have worked within industry for a number of years and will have a basic understanding of safety systems as they relate to their work. They may also be familiar with the current OHS regulatory regime as it relates to their respective work place.

HSRs may come from a variety of backgrounds and some may have English as their second language. Many HSRs will have been in a number of jobs with various employers and will have been out of a classroom environment for many years.

### Presentation

No time frame has been suggested for the course. It is recognised that sufficient time needs to be allocated to allow for a variety of presentations, workshops and case studies to ensure an enjoyable and meaningful course. It is a requirement that the course be delivered by RTOs.

It is anticipated the course will be enhanced by offering a variety of presenters with expert knowledge of the subject area or a particular case study. These presenters could be drawn from within the oil and gas industry, the respective unions or government.

### Assessment

No formal assessment of the participants is required. However self-assessment through participation in case studies and subsequent discussions should be encouraged. Participation in the full course is required

before an attendance certificate can be issued. Further, the RTO is required to maintain Student Feedback Records.

## 1. Module 1: Legislation

### Module Descriptor

The HSR will need to have an understanding of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* Schedule 3 and the *Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009*. The HSR must know where and how to access information relating to legislation and safety. The HSR would:

- be able to explain the general provisions of Schedule 3 and the safety regulations with particular reference to the duties employers and employees
- describe the role of the employer, operator, members of the workforce, the HSR and the regulator in regard to a healthy and safe workplace. Recognize the regulations, codes of practice and guidelines that apply under the OPGGSA, and have an overview of the evolution of the legislation from prescriptive to goal setting
- know the various reference sources available to research any safety and health issues.

Generally the HSR would be part of a team and would be expected to be capable of explaining the legislation to a group of peers. They would be liaising and communicating with fellow workers and management representatives.

Element	Performance criteria
1. <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> (OPGGSA)	1.1 Be able to explain the scope of the OPGGSA. 1.2 Discuss how the 'performance based' regime of the OPGSSA differs from a prescriptive regime. 1.3 Discuss the safety regulations under the OPGGSA with an overview of the safety case. 1.4 Recognise the regulations, codes of practice and guidelines that apply.
2. <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006 – Schedule 3 and the Offshore Petroleum and Greenhouse Storage (Safety) Regulations 2009</i>	2.1 Explain the general provisions of Schedule 3 with particular reference to the duties relating to OHS and workplace arrangements. 2.2 Be able to discuss the role of the HSR, operator, employer and OHS inspector. 2.3 Discuss the powers and HSRs, disqualification of HSRs, Designated Work Groups, Health and Safety Committees. 2.4 Discuss of the consultative process and the different mechanism for issue resolution. 2.5 Demonstrate an understanding of when Provisional Improvement Notices apply. 2.6 Explain legislative requirements for reporting incidents and dangerous occurrences to NOPSEMA.
3. NOPSEMA	3.1 Describe the functions and roles of NOPSEMA.
4. Research	4.1 Gather and assess relevant Safety and Health and legislative information. 4.2 Update, modify, maintain and store relevant information pertaining to OHS. 4.3 Analyse and present relevant OHS information.

## 2. Module 2: Hazard Identification and Risk Management

### Module Descriptor

In a typical scenario an HSR will need to be able to recognise a range of potential hazards and risk management strategies. The HSR will need to know likely sources of information on hazards, what constitutes a hazard and how to prioritise the hazard based on the risk it presents. This unit includes the identification and implementation of relevant controls measures based on the hierarchy of controls. The HSR would:

- recognise a hazard and determine the risk it represents
- be aware of the appropriate type of control to put in place
- research an appropriate website / document to gain information on a hazard
- understand how to interpret a Material Safety Data Sheet (MSDS)
- understand the concept of risk management.

Generally the HSR would be part of a team and would be expected to be capable of explaining hazard identification and risk management strategies to a group of peers. They would be liaising and communicating with fellow workers and management representatives.

Element	Performance criteria
1. Recognise a Hazard	1.1 Be able to define a Hazard. 1.2 Be able to discuss the hazard represented by a given work situation, chemical, noise, a dust and working in an exposed location. 1.3 Access suitable information about a given hazard. 1.4 Discuss consultation and involvement in the risk management process.
2. Hazard Control	2.1 Use the hierarchy of control to develop a strategy to overcome a given hazard. 2.2 Understand the difference between preventative controls as opposed to mitigative controls. 2.3 Discuss the relationship of controls such as Permit to Work, Personal Protective Equipment within the hierarchy. 2.4 Read an MSDS and act on the information.
3. Understand Risk	3.1 Understand risk and its components. 3.2 Explain accepted, perceived, societal risk. 3.3 Be able to use a risk matrix to reach a team consensus of risk. 3.4 Understand the limitations of risk assessment. 3.5 Identify risk assessment tools. Including quantitative and qualitative and the merits and limitations.
4. Risk Management	4.1 Differentiate between hazard control and risk reduction. 4.2 Discuss the concept of "as low as is reasonably practical" (ALARP).

## 3. Module 3: Safety Management System and Safety Case

### Module Descriptor

In a typical scenario an HSR will need to have an understanding of Safety Management Systems and Safety Case development. The HSR will need to know how the various elements of an SMS come together to assist in providing a safe place of work. This unit includes identification of elements of an SMS and the SMS processes that produce a case for safety. The HSR should also understand the linkages between the SMS and the Safety Case. The HSR would:

- understand the elements of an SMS
- be able to discuss their understanding of the critical elements of an effective SMS
- be able to follow a logical development of a safety case
- be familiar with the FSA process and the impact of the assumptions and data bases used in the assessments
- understand the Hazard Identification and ALARP workshop process
- understand the role of audit in a self-regulating regime
- be able to discuss the outcomes as portrayed in the Hazard Register.

Generally the HSR would be part of a team and would be expected to be capable of explaining SMS and Safety Case to a group of peers. They would be liaising and communicating with fellow workers and management representatives.

Element	Performance criteria
1. Understand a Safety Management System	1.1 Identify elements that make up an SMS. 1.2 Describe an SMS. 1.3 Understand role of the SMS in managing ongoing safety at facilities.
2. Safety Case	2.1. Describe how the Safety Case regime evolved. 2.2. Recognise the Safety Case regulations & guidelines. 2.3. Be able to discuss the relationship between an SMS and Safety Case. 2.4. Be able to map the processes within an SMS that contribute to a Safety Case.
3. Formal Safety Assessment	3.1 Understand the concepts FSA / QRA / ALARP. 3.2 Identify qualitative and quantitative processes utilized in the development of an FSA. 3.3 Explain how changing operational assumptions relevant to their work impact on FSA outcomes. 3.4 Identify elements of a good HAZID workshop.
4. Audit	4.1 Understand the differences between monitoring, auditing and reviewing. 4.2 Develop an audit checklist for an Identified Hazard in the Hazard Register. 4.3 Discuss the role of audit, monitor and review within the context of the Safety Case regime and SMS. 4.4 Recognise an effective audit.
5. Hazard Register	5.1 Explain how the Hazard Register is used in the HAZID workshop.

## 4. Module 4: Incident Investigation

### Module Descriptor

In a typical scenario an HSR will need to have an understanding of root cause analysis so as to enable meaningful participation in and recognition of an effective investigation. The HSR will need to know what constitutes a good root cause methodology and investigation technique and how to access and research incident data to obtain meaningful information. The HSR would:

- analyse incident investigation reports to assess thoroughness
- be able to discuss the root cause methodology
- recognise potential in a number of incident scenarios
- participate in investigation scenarios using the basic 5 whys method and present meaningful recommendations designed to prevent a recurrence
- identify trends in incident database.

Generally the HSR would be part of a team and would be expected to be capable of explaining incident investigation to a group of peers. They would be liaising and communicating with fellow workers and management representatives.

Element	Performance criteria
1. Incident Reporting	1.1 Discuss the importance of reporting all incidents. 1.2 Discuss the elements of a culture that encourages incident reporting. 1.3 Discuss incident reporting requirements in the OPGGSA and the Safety Regulations.
2. Incident investigation	2.1 Identify different investigation tools / methodologies. 2.2 Participate in an investigation team. 2.3 Develop meaningful recommendations to prevent a recurrence of the identified root causes. 2.4 Assess an incident investigation report. 2.5 Identify an effective incident investigation. 2.6 Discuss workforce involvement in incident investigation.
3. Root Cause Analysis	3.1 Discuss root cause methodology – TapRoot, Tripod, 5 Whys. 3.2 Be able to apply the 5 Why methodology to an incident scenario. 3.3 Recognise a root cause.
4. Incident data	4.1 Gather, collate, organise and store incident data. 4.2 Be able to recognise trends in supplied incident data. 4.3 Present data in a meaningful way.

## 5. Module 5: Communications

### Module Descriptor

In a typical scenario an HSR will need to be able to communicate effectively with fellow workers and management representatives. The HSR will need to know how to present findings, chair meetings, negotiate outcomes and assist in conflict resolution. This unit includes exposure to the tools that help make communication effective. The HSR would:

- develop well balanced presentations / arguments based on research of relevant legislation and OHS documents
- be able to plan and run an effective meeting with specific reference to Safety Committee and Toolbox meetings
- be able to plan for and participate in a variety of negotiation scenarios.

Generally the HSR would be part of a team and would be expected to be capable of demonstrating good communication skills with his peers. At all times they would be liaising and communicating with fellow workers and management representatives.

Element	Performance criteria
1. Meetings	1.1 Use a methodology to plan the meeting. 1.2 Explain the role of the various meeting participants. 1.3 Prepare a meeting agenda. 1.4 Conduct a meeting.
2. Presentation of information	2.1 Identify the media available for presenting information, its merits and limitations. 2.2 Present information using an effective medium. 2.3 Present to a meeting in a logical sequence, clearly and concisely.
3. Negotiation	3.1 Recognise various negotiation methodologies. 3.2 Use of conflict resolution process. 3.3 Demonstrate negotiation skills in scenarios covering HSR and Employer/Operator, HSR and Employee.