

# Unit IOG1 - International Oil and Gas Operational Safety

Reference information provided, in particular web links, was correct as of 03/04/17.

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## Element 1 - Health, safety and environmental management in context

The Process Safety Leadership Group final report on Safety and Environmental Standards for Fuel Storage Sites <a href="http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf">http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf</a>

The Report of the BP U.S. refineries independent safety review panel (January 2007) at: <a href="http://www.bp.com/liveassets/bp\_internet/globalbp/globalbp\_uk\_english/SP/STAGING/local\_assets/assets/pdfs/Baker\_panel\_report.pdf">http://www.bp.com/liveassets/bp\_internet/globalbp/globalbp\_uk\_english/SP/STAGING/local\_assets/assets/pdfs/Baker\_panel\_report.pdf</a>

The Australian Government report into the Longford Disaster

ISO 17776 Petroleum and natural gas industries, Offshore production installations, Guidance on tools and techniques for hazard identification and risk assessment

The Offshore Installations (Safety Case) Regulations (OSCR) 2005

Preparing safety reports: Control of Major Accidents Hazards Regulations (COMAH) 1999. (HSE) HSG190

The Public Enquiry into the Piper Alpha Disaster, Cullen, The Honourable Lord, The Stationery Office, 1990 ISBN: 978-0-10-113102-5 or

Kletz, T.A., Learning from Accidents, 3rd edition, 2001, Chapter 17. Gulf, ISBN: 978-0-7506-4883-7

Kletz, T A: What Went Wrong? Case Histories of Process Plant Disasters (1998) Gulf, ISBN: 978-0-88415-920-9

Kletz, T A: Still Going Wrong: Case Histories of Process Plant Disasters and How They Could Have Been Avoided (2003) Gulf, ISBN: 978-0-7506-7709-7

Incidents that Define Process Safety John Wiley and Sons, ISBN: 978-0-470-12204-4

Step Change in Safety at: <a href="http://stepchangeinsafety.net">http://stepchangeinsafety.net</a>

Investigating Accidents and Incidents (www.hse.gov.uk/pubns/books/hsg245.htm)

Guide for the management of NORM in the oil and gas industry. OGP report No412: September 2008

HSE Information sheet OIS No3/2006: Guidance on Risk Assessment for Offshore Installations

HSE: 'ALARP at a Glance'

Improving Inherent Safety: OTH 96 521: (Prepared by AEA Technology and Loughborough Consultants for the HSE)

HSE Offshore Information sheet No2/2009: Hydrocarbon Releases (HCRs) Offshore



HAZID: Hazard Identification: Chemical Engineering Processing. (<a href="http://chemeng-processing.blogspot.co.uk/2009/04/hazid-hazard-identification.html">http://chemeng-processing.blogspot.co.uk/2009/04/hazid-hazard-identification.html</a>)

Thermal Radiation from Large pool Fires (National Institute of Standards and Technology: NISTIR 6546)



#### Element 2 - Hydrocarbon process safety 1

The Process Safety Leadership Group final report on Safety and Environmental Standards for Fuel Storage Sites <a href="http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf">http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf</a>

USA Occupational Safety and Health Administration (OSHA) Process safety management of highly hazardous chemicals (Standards - 29 CFR 1910.119)

Lees' Loss Prevention in the Process Industries: Hazard Identification, Assessment and Control - Butterworth-Heinemann Ltd; ISBN - 13: 978-0-7506-7555-0

T. Kletz: What Went Wrong? Case Histories of Process Plant Disasters (1998) Gulf, ISBN: 978-0-88415-920-9

T. Kletz: Still Going Wrong: Case Histories of Process Plant Disasters and How They Could Have Been Avoided (2003) Gulf, ISBN: 978-0-7506-7709-7

BSEN ISO 15544 Petroleum and natural gas industries - Offshore production installations - Requirements and guidelines for emergency response

API Corrosion management

Safe Ups and Downs for Process Units (BP Process Safety Series) The Institution of Chemical Engineers; 2nd Revised edition (30 July 2006) ISBN: 978-0-8529-5502-4

Guidance on permit-to-work systems: A guide for the petroleum, chemical and allied industries (HSE) HSG 250 ISBN: 978-0-7176-2943-5

HSE: Managing Contractors: A Guide for Employers (HSG 159)

OSHA: Process Safety Management: Guidelines for Compliance (OSHA 3133)

**HSE: Plant Modification/Change Procedures** 

HSE: Asset Integrity: KP3 (11/07)

HSE: Maintenance of Work Equipment

Basics of Corrosion Control (www.npl.co.uk)

**HSE:** Guidance on Operating Procedures

HSE: Cleaning and Gas Freeing of Tanks containing Flammable residues (CS15)

Non-condensables (www.plantengineering.com; www.systhemique.com/steam-condensate)



#### Element 3 - Hydrocarbon process safety 2

The Process Safety Leadership Group final report on Safety and Environmental Standards for Fuel Storage Sites <a href="http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf">http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf</a>

T. Kletz: What Went Wrong? Case Histories of Process Plant Disasters (1998) Gulf, ISBN: 978-0-8841-5920-9

T. Kletz: Still Going Wrong: Case Histories of Process Plant Disasters and How They Could Have Been Avoided (2003) Gulf, ISBN: 978-0-7506-7709-7

**API Corrosion management** 

Safety and environmental standards for fuel storage sites Buncefield Standards Task Group (BSTG) Final report <a href="http://www.hse.gov.uk/comah/buncefield/bstqfinalreport.pdf">http://www.hse.gov.uk/comah/buncefield/bstqfinalreport.pdf</a>

Energy Institute: Guidance for corrosion management in oil and gas production and processing ref: 978-0-8529-3497-5

Energy Institute: Corrosion threats handbook - Upstream oil and gas production plant (A6) Date: Dec 2008 ref: 978-0-8529-3496-8

Materials strength; Stress; Stress Corrosion Cracking: Wikipedia

Process Control Systems (Wikipedia)

Safety Integrity Levels: Tech. News; SA Instrumentation and Control (www.instrumentation.co.za)

Floating Roof Tank (rim seal) Fire Protection: (GRISHMA Global Technology: www.grishmaglobal.com)

Interceptors/Separators: (PS International: www.psinternational.com) (Wikipedia)

Pressurised and Refrigerated Vessels: Wikipedia

Pool Fires: HSE (www.hse.gov.uk/offshore/strategy/pool.html)

Pipelines and Pigging Operations (Wikipedia)

Decommissioning Topic Strategy (Bomel Ltd: <a href="https://www.hse.gov.uk/research/otopdf/2001/oto01032.pdf">www.hse.gov.uk/research/otopdf/2001/oto01032.pdf</a>)

Lightning: US EPA (<a href="http://www.epa.gov/osweroe1/docs/chem/lit-flam.pdf">http://www.epa.gov/osweroe1/docs/chem/lit-flam.pdf</a>)

Static Electricity: OSH Department of Labour: New Zealand

(http://www.osh.dol.govt.nz/order/catalogue/archive/staticelectricity.pdf)

Zoning and Hazardous Areas: HSE (www.hse.gov.uk/comah/sragtech/techmeasareaclas.htm)

Boiler Tube Failures: (http://www.brighthub.com/engineering/mechanical/articles/38111.aspx)



#### Element 4 - Fire protection and emergency response

The Process Safety Leadership Group final report on Safety and Environmental Standards for Fuel Storage Sites, <a href="http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf">http://www.hse.gov.uk/comah/buncefield/fuel-storage-sites.pdf</a>

Fire systems integrity assurance (OGP Report No. 6.85/304)

ISO 13702 Petroleum and natural gas industries - Control and mitigation of fires and explosions on offshore production installations - Requirements and guidelines

API recommended Practice no 2021 Management of Atmospheric Tank Fires

Fire and Gas Detection in the Process Industry: J.Hind (<a href="http://www.jonhind.com/fire-and-gas-in-the-process-industry-jon-hind%20paper.pdf">http://www.jonhind.com/fire-and-gas-in-the-process-industry-jon-hind%20paper.pdf</a>)

Fire and Gas Detection: HSE Offshore

HSE: Offshore Report OTO 200 051: Review of Response of Pressurised Process Vessels and

Equipment to Fire Attack

Passive Fire Protection: Wikipedia

Fire Engineering (www.fireengineering.com)

HSE: HSG 191: Emergency Planning for Major Accidents

HSE: L65: Prevention of Fire and Explosion and Emergency Response on Offshore Installations



### Element 5 - Logistics and transport operations

Oil Companies International Marine Forum Guidelines

Guidelines for managing marine risks associated with FPSOs (OGP Report No. 377)