



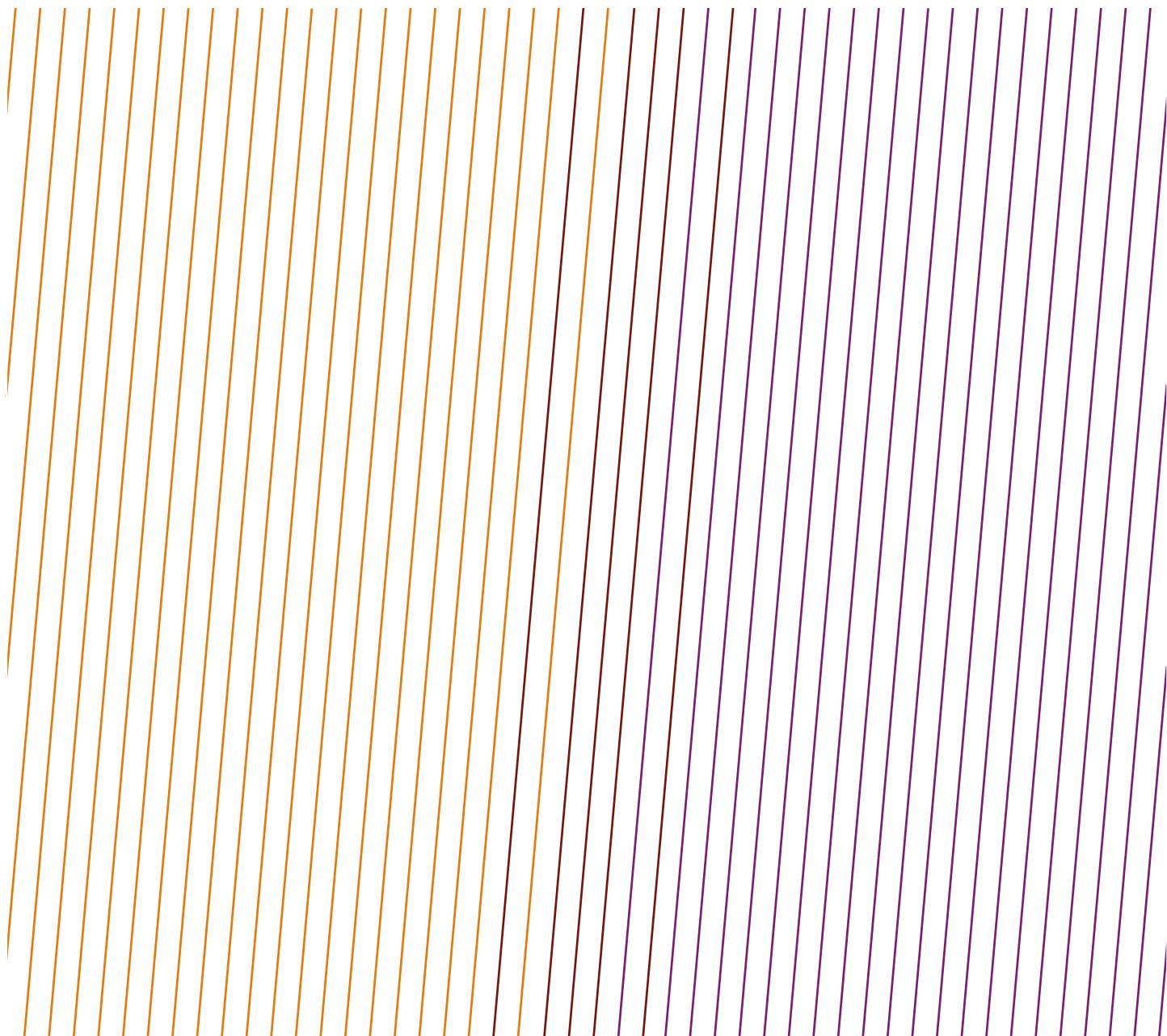
International  
Association  
of Oil & Gas  
Producers

REPORT  
2014su

SEPTEMBER  
2015

DATA SERIES

## Safety data reporting user's guide – 2014 data



## Acknowledgements

### Safety Committee

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# Safety data reporting user's guide – 2014 data

Revision history

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1.0	September 2015	First release

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# 1. Summary

The International Association of Oil & Gas Producers, IOGP (formerly the E&P Forum), has been collecting global safety incident data from member companies since 1985. The data collected are entered directly to the IOGP safety database, which is the largest database of safety incident statistics in the industry.

The principal purpose of the data collection is to annually record and analyse the global event and incident statistics of IOGP member companies in the areas of occupational safety, process safety, and motor vehicle safety. The annual report produced provides the information required to analyse industry incident trends, benchmark performance and identify subject areas and activities where focused efforts can be made to effect the greatest improvements.

The scope of the IOGP incident and event reporting system includes worldwide exploration and production (E&P) activities, onshore and offshore, for both member companies and their associated contractor work hours, as defined in 3.1. The data reported by member companies are consolidated and analysed in order to compute the frequency and severity of incidents and events occurring in E&P operations by region, country, function and company. A code is used to preserve company anonymity.

It should be noted that the scope of reporting and definitions in this document may deviate from other reporting schemes.

## 2. Structure of reporting system

Member companies are requested to provide their safety incident and event data using the standardized forms that are described in this guide for each country in which the member company has operations within the scope of reporting. A glossary of terms is provided in Appendix 2 and Frequently Asked Questions are listed in Appendix 4.

### **Report 1: Occupational Injuries**

Used for reporting all recordable work-related injuries, i.e. those that result in:

- a fatality
- an injury requiring time off work (lost work day case)
- a restriction in the work performed (restricted work day case), or a
- an injury requiring medical treatment (medical treatment case, see Appendix 1).

### **Report 1A: Lost Workday Case Breakdown – Cause**

Used to provide additional information on the injury causes associated with lost workday cases.

### **Report 1B: Lost Workday Case Breakdown – Activity**

Used to provide additional information on the activities associated with lost workday cases.

The intent of gathering the detailed information in both Reports 1A and 1B is to provide industry with focus areas for the development of guidance and recommended practice.

### **Report 2: Fatal Incidents**

Used to provide additional information on work-related fatalities as a result of an injury, rather than an illness. Wherever a fatality is entered in Report 1, details of the incident must be provided in Report 2, i.e. one completed Report 2 for every incident involving one or more fatalities. When a fatal incident results from a Process Safety Event, details must be entered in Report 2, as well as Report 6 and 6B (to capture barrier failures).

### **Report 3: High Potential Events**

High potential events are defined to be any incident or near miss that could, in other circumstances, have realistically resulted in one or more fatalities. The intent of gathering the detailed information in Reports 2 and 3 is to maximize learning from all incidents and near misses which did or may have resulted in a fatality. Companies are requested to only submit the event reports with the most useful information for industry learning. The learning from these events is not necessarily dependent on the actual outcome, therefore it is very important to provide sufficient detail on learning to be able to provide the industry with recommendations and guidance to prevent recurrence. The information reported using Reports 2 and 3 may also relate to process safety event data provided in Report 6.

#### **Report 4: Occupational Illnesses**

Occupational illnesses are no longer part of the request for data. Leading Health Performance Indicators are reported separately, as outlined in IOGP/IPIECA Report 393, *Health Performance Indicators. A guide for the oil and gas industry*, published 2007.

#### **Report 5: Motor Vehicle Crashes**

Used for reporting the number and severity of Motor Vehicle Crashes. These data are used for industry performance benchmarking in line with the IOGP Land Transportation Recommended Practice.

#### **Report 6: Process Safety Events**

Used for reporting Tier 1 and Tier 2 Process Safety Events (PSE) according to IOGP Report 456, *Process Safety – Recommended Practice on Key Performance Indicators* <http://www.ogp.org/pubs/456.pdf>, the supplement to this report provides Process Safety Upstream PSE examples <http://www.ogp.org/pubs/456supp.pdf>. The IOGP publications are consistent with API Recommended Practice No. 754 *Process Safety Performance Indicators for the Refining and Petrochemical Industries*.

#### **Report 6A: Process Safety Events – sabotage or wilful damage**

PSE incidents related to sabotage or wilful damage are reported separately in report Form 6A.

#### **Report 6B: Tier 1 Process Safety Event Descriptions**

Report Form 6B is used for the submission of event descriptions for Tier 1 PSE including barrier failures.

#### **Self-Assessment**

A mandatory form which is intended as an aid to validation of data submissions.

#### **Checklist**

A checklist is provided for nominees completing the data submission to ensure that all data forms have been completed.

# 3 Scope of reporting and key definitions

Data are reported on a country-by-country basis for all operations where the company either:

- is the operator, or
- has majority or controlling interest and has an officer assigned as the senior managing director of the joint venture operation.

## **Joint Venture Operations**

In the case of **Joint Ventures** where the operating company is itself not a member of IOGP, companies in the partnership that are IOGP members are required to reach agreement on which company is to take the lead on collection of relevant information.

When the Joint Venture Company is itself an IOGP member, then the Joint Venture Company should report.

## **Joint Operatorship**

In case of joint operatorship where more than one operating company is an IOGP Member, in order to avoid double counting the operating companies are required to reach agreement on how to report data to IOGP.

## **Partner Operations**

Data from partnership operations (i.e. facilities for which the company owns equity but is not the operator) are excluded.

The following definitions provide the scope of reporting for incidents and events that should be included within the data submission to IOGP.

---

## 3.1 Work-relatedness definition

An injury must be considered work-related if an event or exposure in the work environment caused or contributed to the resulting condition or significantly aggravated a pre-existing injury. Work-relatedness is presumed for injuries resulting from events or exposures occurring in the work environment unless one of the following exceptions applies in its entirety:

- occurs when an employee or contractor is present in the work environment as a member of the general public. In case of a fatality, it will be included in the third party statistics
- results solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity, such as blood donation, physical examination, flu vaccination, exercise class, racquetball, or baseball etc. Where the activity is company-sponsored the participation must be perceived by the employee as voluntary for this exception to apply
- involves signs or symptoms that surface at work but result solely from a non work-

related event or exposure

- is solely the result of eating, drinking, or preparing food or drink for personal consumption (whether bought on the employer's premises or brought in).  
For example, if the employee is injured by choking on a sandwich while in the employer's establishment, the case would not be considered work-related.  
Note: If the employee is made ill by ingesting food contaminated by workplace contaminants (such as lead), or gets food poisoning from food supplied by the employer, the case would be considered work-related
- is solely the result of doing personal tasks in the work environment outside of the employee's assigned working hours
- is solely the result of personal grooming, self-medication for a non-work-related condition or is intentionally self-inflicted
- is the common cold or flu (Note: contagious diseases such as tuberculosis, brucellosis, hepatitis A, or plague are considered work-related if the employee is infected at work), and
- occurs during a commute from the home to the normal place of work or first stop unless the commute uses company-mandated transport.

## 3.2 Occupational injury definitions

An **occupational injury** is any injury such as a cut, fracture, sprain, amputation, etc., which results from a work-related activity or from an exposure involving a single incident in the work environment, such as deafness from explosion, one-time chemical exposure, back disorder from a slip/trip, insect or snake bite.

### Fatality

Cases that involve one or more people who died as a result of a work-related incident. 'Delayed' deaths that occur after the incident are to be included if the deaths were a direct result of the incident. For example, if a fire killed one person outright, and a second died three weeks later from lung damage caused by the fire, both shall be reported. In some cases, a delayed fatality occurs in the next calendar year after the incident. For example, if the above fire occurred on December 21, the second death from it might occur in January of the next year. *All fatalities from an incident should be included in the report for the year incident occurred.*

### Lost Work Day Case (LWDC)

When reporting occupational injury data (report forms 1, 1A and 1B): non-fatal cases that involve a person being unfit to perform any work on any day after the occurrence of the occupational injury. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment.

### LWDC Days (No. of Lost Work Days)

The sum total of **calendar days** (consecutive or otherwise) after the days on which the occupational injuries occurred, where persons reported under LWDC (above) were unfit for work and did not work.

If LWDC days are reported at least one day must be reported for each lost workday case (LWDC).

Where absence from work extends beyond the year end, the actual or estimated days unfit for work in the following year should be added to those for the reporting year in computing the number of lost work days, i.e. days unfit for work.

Days unfit for work between a fatal incident and the date of death are not included.

The maximum LWDC days reportable for each lost workday case is 180.

**Example** - Three employees were severely injured and unfit for work after their respective incidents. Employee A was unfit for 2 working days, a weekend and 2 further days. Employee B was unfit for 3 weeks, and Employee C was fit for work the day after the injury but thereafter not fit for the three following days.

A was unfit for work for 2+2+2 days	=	6 days
B was unfit for work for 3×7 days	=	21 days
C was unfit for work for	=	3 days
Number of days unfit for work	=	30 days.

This example should be reported as 3 Lost Work Day Cases and 30 Lost Work Days.

### Restricted Work Day Case (RWDC)

When reporting occupational injury data (report form 1): cases that do not result in a fatality or a lost work day case but do result in a person being unfit for full performance of the regular job on any day after the occupational injury.

Work performed might be:

- an assignment to a temporary job
- part-time work at the regular job
- working full-time in the regular job but not performing all the usual duties of the job.

### RWDC Days (No. days restricted work)

Days counting as restricted work are defined as for a lost work day case (LWDC above).

### Medical Treatment Cases (MTC)

Those cases not severe enough to be reported as fatalities, lost work day cases or restricted work day cases but are more severe than requiring simple first aid treatment. Further guidance on cases that qualify as medical treatment rather than first aid cases is given in Appendix 1.

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### 3.3 Company/Contractor activity definitions

#### Company work-related activities

All work by Company personnel, including attendance at courses, conferences and Company-organized events where participation is perceived by the employee as mandatory, business travel, field visits or any other activity or presence expected by the employer. Refer to the section on work-relatedness for the exemptions that apply.

#### Contractor work-related activities

Reporting is required for all work performed by Contractor personnel under the following contractual Modes 1 and 2, as defined in IOGP Report 423, *HSE management – guidelines for working together in a contract environment* published in 2010:

**Mode 1** – The contractor provides people, processes and tools for the execution of the contract under the supervision, instructions and HSE-MS of the client. The contractor has a management system to provide assurance that the personnel for whom it is responsible are qualified and fit for the work and that the processes, tools, materials and equipment they provide are properly maintained and suitable.

**Mode 2** – The contractor executes all aspects of the contract under its own HSE-MS, providing the necessary instructions and supervision and verifying the proper functioning of its HSE-MS. The client is responsible for verifying the overall effectiveness of the HSE management controls put in place by the contractor, including its interface with subcontractors, and assuring that both the client's and the contractor's HSE-MS are compatible.

**Mode 3** – Contractor operates within its own HSE-MS that has no interfaces with the client HSE-MS and is not required to report HSE performance data including incidents to the client. However, this does not exclude the possibility that the client may wish to guide and influence HSE performance under this type of contract.

**NOTE:** For reporting purposes, **Subcontractor** personnel are to be treated as if they were Contractor personnel and work hours and work-related events reported as Contractor events.

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## 3.4 Personnel definitions (company/contractor/third party)

### Company employee

A person employed by and on the payroll of the reporting Company, including corporate and management personnel specifically involved in E&P activities. Persons employed under short-service contracts are included as Company employees provided they are paid directly by the Company.

### Contractor employee

A person employed by a Contractor or Contractor's Subcontractor(s) who is directly involved in execution of prescribed work under a Mode 1 or Mode 2 contract with the reporting Company (Reference 3.3 above).

### Third Party

A person with no business relationship with the company or contractor. Incidents in which there are third party fatalities should be entered in Report 1, with details entered in Report 2. This third party information will be used internally within IOGP to identify learning opportunities.

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## 3.5 Location definitions (onshore/offshore)

### Onshore

All activities and operations that take place within a landmass, including those on swamps, rivers and lakes. Land-to-land aircraft operations are counted as onshore, even though flights may be over water.

### Offshore

All activities and operations that take place at sea, including activities in bays, in major inland seas, such as the Caspian Sea, or other inland seas directly connected to oceans. Incidents including transportation of people and equipment from shore to the offshore location, either by vessel or helicopter, should be recorded as 'offshore'.

**NOTE:** Strictly speaking, the categorization under onshore or offshore refers to the physical location of the incident, and not to an individual's normal place of work. However, where this is administratively difficult, it is acceptable to record an incident as happening at the location where the work hours are recorded, even though the incident physically happened elsewhere. For example, a mechanic who normally works onshore is called offshore for a repair job lasting two days. Whilst offshore, the mechanic suffers an injury resulting in a lost workday. If the mechanic's work hours are counted as onshore hours, even though he was physically offshore, then the LWDC

should be counted as an onshore incident. The same principle applies for personnel who travel internationally; the incident should be assigned to the geographic location where their work hours are allocated.

## 3.6 Work function definitions

### **Exploration**

Covers geophysical, seismographic and geological activities, inclusive of administrative and engineering aspects, maintenance, materials supply, and transportation of personnel and equipment. Exploration drilling is to be included under 'drilling'. Exploration activities fall outside the scope of Report 6 for Asset Integrity/Process Safety Events.

### **Drilling**

Includes all exploration, appraisal and production drilling, wireline, completion and workover as well as their administrative, engineering, construction, materials supply and transportation aspects. It includes site preparation, rigging up and down and restoration of the drilling site upon work completion.

### **Production**

Covers petroleum and natural gas production operations, including administrative and engineering aspects, repairs, maintenance and servicing, materials supply and transportation of personnel and equipment. It covers all mainstream production operations:

#### **Production includes:**

- work on production wells under pressure
- oil (including condensates) and gas extraction and separation (primary production);
- heavy oil production where it is inseparable from upstream (i.e. steam assisted gravity drainage) production
- primary oil processing (water separation, stabilization)
- primary gas processing (dehydration, liquids separation, sweetening, CO<sub>2</sub> removal)
- Floating Storage Units (FSUs) and sub-sea storage units
- gas processing activities with the primary intent of producing gas liquids for sale
- secondary liquid separation (i.e. Natural Gas Liquids [NGL] extraction using refrigeration processing)
- Liquefied Natural Gas (LNG) and Gas to Liquids (GTL) operations
- flow-lines between wells and pipelines between facilities associated with field production operations

- oil and gas loading facilities, including land or marine vessels (trucks and ships) when connected to an oil or gas production process
- pipeline operations (including booster stations) operated by company E&P business.

#### Production excludes:

- production drilling or workover
- mining processes associated with the extraction of heavy oil tar sands
- heavy oil when separable from upstream operations
- secondary heavy oil processing (upgrader)
- refineries.

#### Construction

Includes all construction, fabrication activities and also disassembly, removal and disposal (decommissioning) at the end of the facility life. Construction activities under contracting Modes 1 and 2 shall be reported, as defined in the contractor work activities below. Construction of process plant, fabrication yard construction of structures, offshore installation, hook-up and commissioning, and removal of redundant process facilities are all examples to be included. Construction activities fall outside the scope of Report 6 on Asset Integrity/Process Safety Events.

#### Unspecified

Should be used for the entry of data associated with office personnel whose work hours and incident data cannot be reasonably assigned to the administrative support of one of the function groupings of exploration, drilling, production or construction. Corporate overhead support function personnel such as finance or human resources staff may be examples where work hours cannot be specifically assigned to a particular function.

Injuries occurring in **seismic and drilling camps** or on offshore platforms during **off-duty hours** should not be included unless they are work-related, i.e. they are caused by other personnel who are at work.

### 3.7 Work hours

#### Hours worked (000's)

The actual 'hours worked', including overtime hours, are recorded in the case of onshore operations. The hours worked by an individual will generally be about 2000 per year.

For offshore workers, the 'hours worked' are calculated on a 12-hour work day. Consequently average hours worked per year will vary from 1600 to 2300 hours per person depending upon the on/off shift ratio. Vacations and leaves are excluded.

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## 3.8 Incident/event categories

The following list should be used for the reporting of Lost Work Day Cases and fatal incident and high potential event descriptions. See Appendix 2, *Glossary of general terms* for definitions.

- Assault or Violent Act
- Caught In, Under or Between
- Confined Space
- Cut, Puncture, Scrape
- Explosions or Burns
- Exposure: Electrical
- Exposure: Noise, Chemical, Biological, Vibration
- Falls from height
- Overexertion/Strain
- Pressure release
- Slips and Trips (at the same height)
- Struck By
- Water related, drowning
- Other.

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## 3.9 Type of activity

The following list should be used for the reporting of Lost Work Day Cases and fatal incident and high potential event descriptions. See Appendix 2, *Glossary of general terms* for definitions.

- Construction, Commissioning, Decommissioning
- Diving, Subsea, ROV
- Drilling, Workover, Well Services
- Lifting, Crane, Rigging, Deck Operations
- Maintenance, Inspection, Testing
- Office, Warehouse, Accommodation, Catering
- Production Operations
- Seismic / Survey Operations
- Transport – Air
- Transport – Land
- Transport – Water, including Marine Activity
- Unspecified – Other.

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## 3.10 Causal factors

The following list of causal factors should be used for Reports 2 and 3.

Further guidance has been provided in Appendix 3, *Glossary of causal factors* to assist the user of the IOGP list of causal factors, to further define and explain the classifications. Since the causal factors selected will be used for trend analysis, accuracy in selecting the appropriate cause is important. Users are encouraged to use this glossary to ensure proper understanding of each cause category.

### PEOPLE (ACTS)

The 'People (Acts)' causal factors involve either the actions of a person or actions which were required but not carried out or were incorrectly performed. There are four main categories, with an additional level of detail under each.

#### Following Procedures:

- Violation intentional (by individual or group)
- Violation unintentional (by individual or group)
- Improper position (in the line of fire)
- Overexertion or improper position/posture for task
- Work or motion at improper speed
- Improper lifting or loading.

#### Use of Tools, Equipment, Materials and Products:

- Improper use/position of tools/equipment/materials/products
- Servicing of energized equipment/inadequate energy isolation.

#### Use of Protective Methods:

- Failure to warn of hazard
- Inadequate use of safety systems
- Personal Protective Equipment not used or used improperly
- Equipment or materials not secured
- Disabled or removed guards, warning systems or safety devices.

#### Inattention/Lack of Awareness:

- Improper decision making or lack of judgement
- Lack of attention/distracted by other concerns/stress
- Acts of violence
- Use of drugs or alcohol
- Fatigue.

## PROCESS (CONDITIONS) CLASSIFICATIONS

Process (Conditions) classifications usually involve some type of physical hazard or organizational aspect out with the control of the individual. There are five major classification categories, with an additional level of detail under each of the major categories.

### Protective Systems:

- Inadequate/defective guards or protective barriers
- Inadequate/defective Personal Protective Equipment
- Inadequate/defective warning systems/safety devices
- Inadequate security provisions or systems.

### Tools, Equipment, Materials, Products:

- Inadequate design/specification/management of change
- Inadequate/defective tools/equipment/materials/products
- Inadequate maintenance/inspection/testing.

### Work Place Hazards:

- Congestion, clutter or restricted motion
- Inadequate surfaces, floors, walkways or roads
- Hazardous atmosphere (explosive/toxic/asphyxiant)
- Storms or acts of nature.

### Organizational:

- Inadequate training/competence
- Inadequate work standards/procedures
- Inadequate hazard identification or risk assessment
- Inadequate communication
- Inadequate supervision
- Poor leadership/organizational culture
- Failure to report/learn from events.

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## 3.11 Life-Saving Rule

The following list of Life-Saving Rules should be used for Reports 2 and 3. This list represents the core and supplementary Rules which are described in more detail in IOGP Report 459, *OGP Life-Saving Rules*. This document can be downloaded from the IOGP website at <http://www.iogp.org/pubs/459.pdf>.

### Confined space

Obtain authorization before entering a confined space

### Dropped objects

Prevent dropped objects

### Drugs and alcohol

No alcohol or drugs while working or driving

### Excavation

Obtain authorization before starting excavation activities

### Gas test

Conduct gas tests when required

### Isolation

Verify isolation before work begins and use the specified life protecting equipment

### Journey management

Follow prescribed journey management plan

### Lift plan

Follow prescribed lift plan

### Line of fire – safe area

Position yourself in a safe zone in relation to moving and energized equipment

### Overhead power lines

Do not work under or near overhead electric power lines

### Permit to work

Work with a valid work permit when required

### Flotation device

Wear a personal flotation device when required

### Seat belt

Wear your seat belt

### Smoking

Do not smoke outside designated smoking areas

### Speeding/phone

While driving, do not use your phone and do not exceed speed limits

### Suspended load

Do not walk under a suspended load

### System override

Obtain authorization before overriding or disabling safety critical equipment

### Work at height

Protect yourself against a fall when working at height

## 3.12 Motor vehicle crash (MVC) definitions

All light duty vehicles, heavy duty vehicles and heavy duty plant equipment (bulldozer, earthmoving equipment, etc.) including buses or coaches when driven on a public road, Reference IOGP Report 365, Guidance Note 5. A list of worked examples for motor vehicle crash classifications is available from the IOGP Data Specialist on request.

### Exclusions from reporting

The following should **not** be reported as motor vehicle crashes when the vehicle is properly parked:

- injuries that occur when entering or exiting the vehicle
- any event involving loading or unloading from the vehicle
- damage to or total loss of a vehicle solely due to environmental conditions or vandalism
- another vehicle crashes into the parked vehicle.

In addition the following should **not** be reported as a motor vehicle crash:

- superficial damage, such as a stone or rock chip damaging a windscreen or paintwork while the vehicle is being driven
- damage related to the theft of a vehicle.

### MVC Work-relatedness

Any crash involving a company, rental or personal vehicle while performing company business.

Work-relationship is presumed for crashes resulting from business being conducted on behalf of the company while operating a company assigned vehicle. Examples of company business include driving a client to the airport, driving to the airport for a business trip, taking a client or work colleague out for a meal, deliveries, visiting clients or customers, or driving to a business related appointment.

Personal business which should not be counted includes, but is not limited to, personal shopping, getting a meal by yourself, commuting to and from home, or driving to a private medical appointment.

Contractor Motor Vehicle Crash includes any vehicle procured (owned, leased, fleeted or rented) by a contractor or subcontractor while performing work on behalf of the company.

### Crash

Work-related vehicle damage or personal injury due to a vehicle related event, or rollover.

## **Motor Vehicle**

Any mechanically or electrically powered device (excluding one moved by human power), upon which or by which any person or property may be transported upon a land roadway. This includes motorcycles. Specifically excluded from the definition of motor vehicle are vehicles operated on fixed rails. In addition, vehicles which are not capable of more than 10 mph (16 kph) may be exempted.

## **Rollover**

Any crash where the vehicle has flipped onto any of its sides, top and/or rolled 360 degrees via any axis.

## **Commuting**

- Travel from home to first work site and travel from last work site to home
- Travel between a worker's identified work location and any location for personal business, including a restaurant
- Travel between a worker's established home-away-from-home to the first worksite or to any location for personal business, including a restaurant
- Travel between home and a non-employer-endorsed local conference or other similar function.

### **Commuting travel**

For injury/illness reporting, Commute travel begins when the worker is seated in the vehicle in preparation for departure and ends when the worker arrives at their home or worksite and the vehicle is placed in park or taken out of gear. For MVC reporting, Commute travel begins when the worker is no longer driving for company business and ends when the worker begins to drive for company business.

Note: Travel to and from field operations locations is consider to be company business travel.

An incident is considered to have occurred during commute travel if it meets the requirements above, regardless whether the incident occurs while driving a company or personal vehicle or whether the employee or contract employee is being compensated during this time. Where appropriate, any incident occurring during Commute travel may be considered as asset or property loss but not as an MVC.

Note: All work-related travel performed by workers that are home-based, i.e. work from their place of residence, is considered to be non-commuting travel.

### **Home-away-from-home**

When traveling, workers establish a 'home away from home' when checked into a hotel, motel, or other similar temporary residence.

Travel directly to the temporary residence before check-in from the airport (train station, etc.) or rental car agency and travel direct from home to the temporary

residence is considered business travel, when on work-related business.

Travel home directly from the temporary residence after checkout to the airport (train station, etc.) or rental car agency and travel direct to home from the temporary residence is considered business travel, when on work-related business.

### 3.13 Process safety event definition

#### **Process Safety Event (PSE)**

Reportable PSE are classified as Tier 1 or 2 based on whether an LOPC event meets or exceeds defined consequences or release thresholds (see Reports 6, 6A and 6B for detail of PSE data to be recorded).

A **process safety event** is a Loss of Primary Containment (LOPC) and is reportable if:

- i. the consequence was a reportable employee or contractor injury or fatality, a third party hospital admission or fatality, a community or site evacuation or a fire/explosion, or
- ii. a pressure relief device discharge or material release occurs which exceeded defined thresholds (even if none of the consequences above occurred)

as specified within IOGP report 456, *Process safety – recommended practice on key performance indicators*, <http://www.iogp.org/pubs/456.pdf>, which provides consequence and threshold definitions consistent with API Recommended Practice No.754. Indicator definitions and consequences are provided below for both Tier 1 PSE and Tier 2 PSE, together with respective tables of Material Release Threshold Quantities. Note that 'days away from work' injury should be taken to be the same as the IOGP defined LWDC.

A supplement to IOGP report 456 provides Process Safety Upstream PSE examples <http://www.iogp.org/pubs/456supp.pdf>. The definitions and thresholds are also provided within this guide as part of Report 6. It should be noted that work relatedness is not generally a factor when determining whether an asset integrity/process safety event is recordable.

Note:

#### **Officially Declared Community Evacuation or Community Shelter-in-Place**

- Officially Declared – A declaration by a recognized community official (e.g. fire, police, civil defense, emergency management) or delegate (e.g. Company official) authorized to order the community action
- Community – areas beyond the fence line, worksite, well site, etc. Community includes towns, cities, public areas (parks, residential areas, shopping centres, etc.), open spaces, roads, highways, worksites of other companies, etc. Community does not include gas plants, well sites, production facilities, production platforms, drilling rigs, FPSO, etc. in which the loss of containment occurs.

## Report 6A

Process safety events due to sabotage or wilful damage are reported separately in report 6A as the control required for sabotage and wilful damage events are generally more related to security rather than process safety.

## Report 6B

Tier 1 process safety events are reported on Report Form 6B to provide similar information as is required for fatal incidents and high potential events to further enable learning from these events. In order to conduct analysis on Tier 1 PSEs additional information is requested on the hardware, human and management system barrier failures in accordance with the categories shown below.

### Hardware Barrier failures

Primary Containment, process equipment and engineered systems designed and managed to prevent process safety events and mitigate any potential consequences of such events.

1. Structural Integrity
2. Process Containment
3. Ignition Control
4. Detection Systems
5. Protection Systems
6. Shutdown Systems – including operational well isolation and drilling well control equipment
7. Emergency Response Equipment and Systems
8. Life-Saving – Personal Survival Equipment.

### Human Barrier failures

These barriers rely on the actions of competent people capable of carrying out activities designed to prevent process safety events and mitigate any potential consequences of such events.

1. Operating in accordance with procedures – PTW, Isolation of equipment, Overrides and inhibits of safety systems, Shift handover, etc.
2. Surveillance, operator rounds and routine inspection
3. Authorization of temporary and mobile equipment
4. Acceptance of handover or restart of facilities or equipment
5. Response to process alarm and upset conditions (e.g. outside safe envelope)
6. Response to emergencies.

NOTE: Human Barriers exclude Maintenance and Inspection (M&I) activities associated with Hardware Barriers. M&I are Management System Elements.

### Management System Element barrier failure\*

Management System Elements designed to prevent process safety events and mitigate any potential consequences of such events. Management System Elements support Hardware and Human Barriers.

- Element 1 – Commitment and accountability
- Element 2 – Policies, standards and objectives
- Element 3 – Organization, resources and capability
- Element 4 – Stakeholders and customers
- Element 5 – Risk assessment and control
- Element 6 – Asset design and integrity
- Element 7 – Plans and procedures
- Element 8 – Execution of activities
- Element 9 – Monitoring, reporting and learning
- Element 10 – Assurance, review and improvement.

\*Reference IOGP report 510

## 3.14 Reporting boundaries

### **Definition**

For the purposes of this document, 'reporting boundaries' are used to help determine which activities and events should be monitored and considered for reporting. Even if a worker, facility or equipment is determined to be within the company's reporting boundaries, the potentially reportable incident or event shall be evaluated for other criteria (e.g. work related, treatment beyond first aid). See Section 3.1 for details and exceptions.

### **Determining Local Reporting Boundaries**

Decisions pertaining to whether an activity or operation is within reporting boundaries should be determined, documented, communicated and understood by the parties involved. In the case of contractor activities, these determinations shall be made prior to executing the work agreement. In most cases, these determinations will be documented as part of a service contract or operating agreement. Reporting units shall use the guidance in the following sections to help make specific determinations on local Reporting Boundaries. These determinations should identify:

- which locations are considered Company premises and what are the commonly understood physical boundaries of these premises
- on-premises activities typically **not** considered to be within Reporting Boundaries
- off-premises activities typically considered to be within Reporting Boundaries.

These determinations shall be documented and used as a guide when:

- setting up data tracking systems, such as those used to track hours worked and miles driven; and
- during incident investigations and classification for reporting under this standard.

## **Scope**

### **In Scope**

#### *Company employees*

- Company employees.
- Company secondees on assignment to non-operated joint ventures.

#### *Contract employees*

- Contract employees on Company premises, except as noted in the Out of Scope section below.
- Contract employees travelling in Company-provided vehicles, watercraft and aircraft (Company-dedicated or shared-service). In the context of this scope, Company-provided means that the Operating Company arranged and paid for transportation in vehicles owned by a contractor, and contract employees are expected to use the transportation as a condition of their work assignment. This excludes commercial (public) transportation that the Company reimburses but does not arrange.
- Contract employees acting in functions, such as inspectors, negotiators and drilling representatives for Company. These contract employees are in scope both on and off premises as long as they are on company business.
- Contract employees as per mode 1 and 2 as defined in IOGP Report 423, *HSE Management – Guidelines for working together in a contract environment*.

#### *Equipment and Transporters*

- Equipment and transport operations (equipment, cargo, crew and passengers), including shared service contractor-owned vehicles, located on the Company premises – except as noted in the Out of Scope section below.
- Transport operations (equipment, cargo, crew and passengers) involving Company-owned vehicles, watercraft and aircraft, both on and off Company premises (including deliveries to customers).
- Transport operations (equipment, cargo, crew and passengers) involving Company-dedicated, contractor-owned vehicles, watercraft and aircraft, when:
  - on Company premises, or
  - travelling directly between Company premises, or
  - travelling while performing work on behalf of the Company.

#### *Business Entities*

- Company-owned, company-operated service stations. Report injury and MVC data for these companies separately from data reported for Company employees and

contract employees, unless a person or vehicle is otherwise within Company's reporting boundaries. All other reportable metrics are included in Company data (e.g. spills, fires, citations, fines).

### Out of Scope

#### *Employees, Third Parties and Equipment*

- Mail, courier, service, and incidental delivery services on Company premises that are not contractually dedicated for exclusive use by Company and who move on and off Company premises, engaging with other firms as a normal activity (e.g. office supply, vending machine deliveries).
- Municipal services (e.g., utility connections, waste pickup) personnel on Company premises performing their normal activities. This exception does not apply to collection or handling of process waste or other services directly related to operations.
- Contract employees who are performing work on the contractor's premises – including fabrication yards, design offices and maintenance shops, according to Mode 3 as defined in IOGP Report 423, *HSE Management – Guidelines for working together in a contract environment*.
- Casual visitors and guests on company premises (e.g., customers, suppliers, public officials, tour groups) that are escorted by Company employees or contract employees.
- Visitors and business partners on premises engaged in emergency response activities related to a non-Company event.
- Drilling and workover rigs, well service equipment, or marine vessels on Company premises that are non-operating and either:
  - are on standby, waiting to commence work for the Company, or
  - have finished work for the Company and are on standby, waiting to mobilize to another distinct location or to be taken off of Company premises.

This item only applies if there is an explicit understanding that the provider is not under contract to the Company at the time, and the Company is allowing the standby storage to take place on premises for the sole convenience and benefit of the contractor. It does not apply to operations at contractor shops, offices and other facilities on Company premises.

- Product releases that occur on Company premises when common-carriers, and spot-charter trucks and vessels are:
  - picking up petroleum products (e.g. fuel, lubricants, crude oil) after ownership has transferred to a customer or transporter, or
  - delivering petroleum products (e.g. fuel, lubricants, crude oil) before ownership has transferred to the Company.
- Business partners' transporters that stop at Company facilities as a convenience to take on fuel or supplies (typically aircraft or marine vessels).

*Business Entities*

- Business partners who have been authorized by the company to use a discrete, isolated work area on Company premises that is solely under the control of the business partner and is for the benefit of more than one customer, possibly including Company (e.g. a gas plant at a refinery, a power generation plant in a production field or a custody transfer station).

# APPENDIX 1: Medical Treatment Cases (MTC)

## **Medical Treatment (MT)**

An incident is classified as Medical Treatment (MT) when the management and care of the patient to address the injury is above and beyond First Aid (see 14 First Aid treatments listed below):

Medical Treatment does not include:

- The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g. eye drops to dilate pupils)
- Visits to a physician or other licensed health care professional solely for observation or counselling.

The following may not involve any treatment but for purposes of severity classification, will be reported as Medical Treatment:

- Any loss of consciousness
- Significant injury diagnosed by a physician or other licensed health care professional for which no treatment is given or recommended at the time of diagnosis. Examples include punctured ear drums, fractured ribs or toes, byssinosis and some types of occupational cancer
- Needle stick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material
- Occupational hearing loss
- Medical removal under a government standard.

Note: First Aid carries a very specific meaning for this purpose. Please refer to the definition of First Aid.

## **First Aid**

An incident is classified as a First Aid if the treatment of the resultant injury is limited to one or more of the 14 specific treatments. These are:

1. Using a non-prescription medication at non-prescription strength
2. Administering tetanus immunizations
3. Cleaning, flushing or soaking wounds on the surface of the skin
4. Using wound coverings such as bandages, Band-Aids™, gauze pads, etc., or using butterfly bandages or Steri-Strips™
5. Using hot or cold therapy
6. Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.
7. Using temporary immobilization devices while transporting an accident victim (e.g. splints, slings, neck collars, back boards, etc.)
8. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister
9. Using eye patches

10. Removing foreign bodies from the eye using only irrigation or a cotton swab
11. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means
12. Using finger guards
13. Using massages, or
14. Drinking fluids for relief of heat stress.

### **Prescription medication**

When making the classification, it should be remembered that the intent is to distinguish those more severe situations that require a medical practitioner to use strong antibiotics and painkillers from those that only require first aid.

For medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment. The definition of Prescription Medication may be used to determine when the prescription strength threshold has been crossed.

**Where local regulations specify prescription medication and dosage these will be followed for the purposes of IOGP reporting.** Where 'prescription medication' is not defined by the local regulatory system the reporting company is responsible for defining prescription medicines and dose rates the following is provided as guidance:

These criteria are provided in order to list those medications that, when prescribed or provided for occupational injuries, uniformly result in recordable incidents, for the purposes of corporate occupational injury reporting. They are to be used in conjunction with other corporate occupational injury recording guidelines addressing diagnosis and level of treatment provided/required, as a means of achieving greater standardization of reporting across global operations.

For purposes of corporate reporting, prescription medication means:

- All antibiotics, including those dispensed as prophylaxis where injury has occurred to the subject individual  
Only Exceptions: Dermal applications of Bacitracin, Neosporin, Polysporin, Polymyxin, Iodine, or similar preparation
- Diphenhydramine greater than 50 milligrams (mg) in a single application or any dose 'injected'.
- All analgesic and nonsteroidal anti-inflammatory medication (NSAID) including:
  - Ibuprofen – Greater than 467 mg in a single dose
  - Naproxen Sodium – Greater than 220 mg in a single dose
  - Ketoprofen – Greater than 25 mg in a single dose
  - Codeine analgesics – Greater than 16 mg in a single dose
- NOTE: Shortening the dosing interval to less than the label instructions for over

the counter medications should be reviewed. If it produces a total dose of the above listed listed or labeled allowed OTC amount it is considered reportable

- Exceptions: Acetylsalicylic acid (Aspirin), acetaminophen (paracetamol) and dermal applications of NSAID's not obtained by prescription are not considered medical treatment
- All dermally applied steroid applications  
Exceptions: Hydrocortisone preparations in strengths of 1 percent or less
- All vaccinations used for work-related exposure  
Exceptions: Tetanus
- All narcotic analgesics (except codeine as listed above)
- All bronchodilators. Exceptions: Epinephrine aerosol 5.5 mg/ml or less
- All muscle relaxants (e.g., benzodiazepines, methocarbamol, and cyclobenzaprine)
- All injections are reportable unless specified above
- All other medications (not listed above) that legally require a prescription for purchase or use in the state or country where the injury occurred. Exception: Medication used for the sole purpose of diagnosis (e.g. dilating or numbing an eye for exam purposes only) is not considered medical treatment.

For areas that are not clear, please seek the advice from a Company physician or medical consultant and document your reasoning for classification.

# APPENDIX 2: Glossary of general terms

## **Assault and violent act (as an incident/event category)**

Intentional attempt, threat or act of bodily injury by a person or person(s) or by violent harmful actions of unknown intent, includes intentional acts of damage to property.

## **Caught in, under or Between (as an incident/event category)**

Injury where injured person is crushed or similarly injured between machinery moving parts or other objects, caught between rolling tubulars or objects being moved, crushed between a ship and a dock, or similar incidents. Also includes vehicle incidents involving a rollover.

## **Company Employee**

Any person employed by and on the payroll of the reporting Company, including corporate and management personnel specifically involved in exploration and production. Persons employed under short-service contracts are included as Company employees provided they are paid directly by the Company.

## **Confined space (as an incident/event category)**

Spaces that are considered 'confined' because their configurations hinder the activities of employee who must enter, work in, and exit them. Confined spaces include, but are not limited to underground vaults, tanks, storage bins, manholes, pits, silos, process vessels and pipelines.

## **Construction (as a work function)**

Major construction, fabrication activities and also disassembly, removal and disposal (decommissioning) at the end of the facility life. Includes construction of process plant, yard construction of structures, offshore installation, hook-up and commissioning, and removal of redundant process facilities.

## **Construction, commissioning, decommissioning (as a type of activity)**

Activities involving the construction, fabrication and installation of equipment, facilities or plant, testing activities to verify design objectives or specification, and also disassembly, removal and disposal (decommissioning) at the end of the facility life.

## **Contractor**

A 'Contractor' is defined as an individual or organization performing work for the reporting company, following verbal or written agreement. 'Subcontractor' is synonymous with 'Contractor'.

## **Contractor Employee**

Any person employed by a Contractor or Contractor's Subcontractor(s) who is directly involved in execution of prescribed work under a contract with the reporting Company.

## **Cut, puncture, scrape (as an incident/event category)**

Abrasions, scratches and wounds that penetrate the skin.

## Diving Operations

The personnel, equipment and management systems to support a person who dives. A person 'Dives' if he enters water or any other liquid, or a chamber in which he is subject to pressure greater than 100 millibars above atmospheric pressure: and in order to survive in such an environment he breathes air or other gas at a pressure greater than atmospheric pressure. Or for such a purpose uses a vehicle, capsule or suit where a sealed internal atmospheric pressure is maintained and where the external pressure differential is greater than 100 millibars.

### Diving, subsea, ROV (as a type of activity)

Operations involving diving (see definition for diving operations), subsea equipment or activities and/or operations involving underwater remotely operated vehicles (ROV).

### Drilling (as a work function)

All exploration, appraisal and production drilling and workover as well as their administrative, engineering, construction, materials supply and transportation aspects. It includes site preparation, rigging up and down and restoration of the drilling site upon work completion. Drilling includes ALL exploration, appraisal and production drilling.

### Drilling/workover/well services (as a type of activity)

Activities involving the development, maintenance work or remedial treatments related to an oil or gas well.

### Event

An unplanned or uncontrolled outcome of a business operation or activity that has or could have contributed to an injury or physical damage or environmental damage.

### Exploration (as a work function)

Geophysical, seismographic and geological operations, including their administrative and engineering aspects, construction, maintenance, materials supply, and transportation of personnel and equipment; excludes drilling.

### Explosion or Burn (as an incident/event category)

Burns or other effects of fires, explosions and extremes of temperature. 'Explosion' means a rapid combustion, not an overpressure.

### Exposure: Electrical (as an incident/event category)

Exposure to electrical shock or electrical burns, etc.

### Exposure: Noise, Chemical, Biological, Vibration (as an incident/event category)

Exposure to noise, chemical substances (including asphyxiation due to lack of oxygen not associated with a confined space), hazardous biological material, vibration or radiation.

### Falls from height (as an incident/event category)

A person falls from one level to another.

### Fatal Accident Rate (FAR)

The number of fatalities per 100,000,000 (100 million) work hours.

### Fatal Incident Rate (FIR)

The number of fatal incidents per 100,000,000 (100 million) work hours.

### First Aid Case

Cases that are not sufficiently serious to be reported as medical treatment or more serious cases but nevertheless require minor first aid treatment, e.g. dressing on a minor cut, removal of a splinter from a finger. First aid cases are not recordable incidents. See Appendix 1.

### High Potential Event

Any incident or near miss that could have realistically resulted in one or more fatalities.

### Hours Worked

The actual 'hours worked', including overtime hours, are recorded in the case of onshore operations. The hours worked by an individual will generally be about 2000 per year.

For offshore workers, the 'hours worked' are calculated on a 12-hour work day. Consequently average hours worked per year will vary from 1600 to 2300 hours per person depending upon the on/off shift ratio. Vacations and leaves are excluded.

### Hours Worked in Year (000's)

Hours worked must be reported in multiples of one thousand and should be rounded to the nearest thousand.

### Incident

An unplanned or uncontrolled Event or chain of Events that has resulted in at least one fatality, recordable injury, or physical or environmental damage.

### Lifting, crane, rigging, deck operations (as a type of activity)

Activities related to the use of mechanical lifting and hoisting equipment, assembling and disassembling drilling rig equipment and drill pipe handling on the rig floor.

### Lost Time Injury (LTI)

A fatality or lost work day case. The number of LTIs is the sum of fatalities and lost work day cases.

### Lost Time Injury Frequency (LTIF)

The number of lost time injuries (fatalities + lost work day cases) per 1,000,000 work hours.

### Lost Work Day Case (LWDC)

Any work-related injury, other than a fatal injury, which results in a person being unfit for work on any day after the day of occurrence of the occupational injury. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment.

### Loss of Primary Containment (LOPC)

An unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO<sub>2</sub> or compressed air).

### Maintenance, inspection and testing (as a type of activity)

Activities related to preserving, repairing, examining and function testing assets, equipment, plant or facilities.

### Medical Cause of Death

This is the cause of death given on the death certificate. Where two types of causes are provided, such as 'pulmonary oedema' caused by 'inhalation of hot gases from a fire', both are recorded.

### Medical Treatment Case (MTC)

Cases that are not severe enough to be reported as fatalities or lost work day cases or restricted work day cases but are more severe than requiring simple first aid treatment. NOTE: A MTC reported under the OSHA reporting requirements should also be reported to IOGP. See Appendix 1 for further information.

### Near Miss

An unplanned or uncontrolled event or chain of events that has not resulted in recordable injury or physical damage or environmental damage but had the potential to do so in other circumstances.

### Number of Lost Workdays

The sum total of calendar days (consecutive or otherwise) after the days on which the occupational injuries occurred, where the persons involved were unfit for work and did not work.

### Number of Employees

Average number of full-time and part-time employees involved in exploration and production, calculated on a full-time basis, during the reporting year.

### Number of Fatalities

The total number of Company's employees and/or Contractor's employees who died as a result of an incident. 'Delayed' deaths that occur after the incident are to be included if the deaths were a direct result of the incident. For example, if a fire killed one person outright, and a second died three weeks later from lung damage caused by the fire, both are reported. In some cases, a delayed fatality occurs in the next calendar year after the incident. For example, if the above fire occurred on December 21, 2013, the second death from it might occur in January 2014. **All fatalities from an incident are included in the report for the year of that incident.** In the above case, the fatality in 2014 is reported with the 2013 data.

### Occupational Illness

Any abnormal condition or disorder, or any fatality other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. Occupational illness may be caused by inhalation, absorption, ingestion of, or direct contact with the hazard, as well as exposure to physical and psychological hazards. It will generally result from prolonged or repeated exposure. Refer to IOGP/IPIECA Report 393, *Health Performance Indicators*, published 2007.

### Occupational Injury

Any injury such as a cut, fracture, sprain, amputation, etc., or any fatality, which results from a work-related activity or from an exposure involving a single incident in the work environment, such as deafness from explosion, one-time chemical exposure, back disorder from a slip/trip, insect or snake bite.

### Off-road

A route used for access to places which are not accessible by a road, (see 'Road').

### Office, warehouse, accommodation, catering (as a type of activity)

Activities related to work conducted in offices, warehouses, workshops, accommodation and catering facilities.

### Officially Declared Community Evacuation or Community Shelter-in-Place

- Officially Declared – A declaration by a recognized community official (e.g. fire, police, civil defense, emergency management) or delegate (e.g. Company official) authorized to order the community action
- Community – areas beyond the fence line, worksite, well site, etc. Community includes towns, cities, public areas (parks, residential areas, shopping centres, etc.), open spaces, roads, highways, worksites of other companies, etc. Community does not include gas plants, well sites, production facilities, production platforms, drilling rigs, FPSO, etc. in which the loss of containment occurs.

### Offshore Work

All activities and operations that take place at sea, including activities in bays, in major inland seas, such as the Caspian Sea, or in other inland seas directly connected to oceans. Incidents including transportation of people and equipment from shore to the offshore location, either by vessel or helicopter, should be recorded as 'offshore'.

### Onshore Work

All activities and operations that take place within a landmass, including those on swamps, rivers and lakes. Land-to-land aircraft operations are counted as onshore, even though flights are over water.

### Other (as an incident/event category)

Used to specify where an incident cannot be logically classed under any other category. In the case of incident activities, includes air transport incidents.

### Overexertion or Strain (as an incident/event category)

Physical overexertion e.g. muscle strain

### Pressure Release (as an incident/event category)

Failure of or release of gas, liquid or object from a pressurized system.

### Primary Containment

A tank, vessel, pipe, truck, rail car, or other equipment designed to keep a material within it, typically for purposes of storage, separation, processing or transfer of gases or liquids.

### Process Safety Event Rate

The number of process safety events per 1,000,000 (1 million) work hours (production and drilling work hours only).

### Production (as a work function)

Petroleum and natural gas producing operations, including their administrative and engineering aspects, minor construction, repairs, maintenance and servicing, materials supply, and transportation of personnel and equipment. It covers all mainstream production operations including wireline. Gas processing activities with the primary intent of producing gas liquids for sale including:

- Secondary liquid separation (i.e., Natural Gas Liquids [NGL] extraction using refrigeration processing)
- Liquefied Natural Gas (LNG) and Gas to Liquids (GTL) operations

See 3.1 for more detail of exclusions.

### Production operations (as a type of activity)

Activities related to the extraction of hydrocarbons from source such as an oil or gas well or hydrocarbon bearing geological structure, including primary processing, storage and transport operations. Includes normal, start-up or shut-down operations.

### Recordable

A type of event, incident, injury, release or other outcome which has been determined to meet or exceed definitions, criteria or thresholds for inclusion and classification in reported data.

### Restricted Work Day Case (RWDC)

Any work-related injury other than a fatality or lost work day case which results in a person being unfit for full performance of the regular job on any day after the occupational injury. Work performed might be:

- an assignment to a temporary job
- part-time work at the regular job
- working full-time in the regular job but not performing all the usual duties of the job.

Where no meaningful restricted work is being performed, the incident should be recorded as a lost work day case (LWDC).

### Road

A thoroughfare which has a prepared, graded and levelled surface designed for the conveyance of motor vehicles (see also 'off-road'), i.e.:

- asphalt, tarmac
- concrete
- aggregate
- dirt/sand
- ice.

### Secondary containment

An impermeable physical barrier specifically designed to prevent release of materials into the environment that have breached primary containment.

### Seismic/ survey operations (as a type of activity)

Activities relating to the determination of sub-surface structures for the purpose of locating oil and gas deposits including geophysical and seismic data acquisition.

### Slips and Trips (at the same height) (as an incident/event category)

Slips, trips and falls caused by falling over or onto something at the same height.

### Struck By (as an incident/event category)

Incidents/events where injury results from being hit by moving equipment and machinery, or by flying or falling objects. Also includes vehicle incidents where the vehicle is struck by or struck against another object.

### Third Party

A person with no business relation with the company or contractor.

### Total recordable incidents

The sum of fatalities, lost work day cases, restricted work day cases and medical treatment cases.

### Transport – Air (as a type of activity)

Involving aircraft, either fixed wing or helicopters. Injuries caused by accidents on the ground at airports are classified in one of the other categories.

### Transport – Land (as a type of activity)

Involving motorized vehicles designed for transporting people and goods over land, e.g. cars, buses, trucks. Pedestrians struck by a vehicle are classified as land transport incidents. Incidents from a mobile crane would only be land transport incidents if the crane were being moved between locations.

### Transport – Water, including Marine Activity (as a type of activity)

Involving vessels, equipment or boats designed for transporting people and goods over water (including inland, marine, ice roads and marsh/swamp), e.g. supply vessels, crew boats.

### Unspecified – Other (as a type of activity)

Incidents that cannot be logically classed under other headings or where the activity is unknown.

### Water related/drowning (as an incident/event category)

Incidents/events in which water played a significant role including drowning.

### Work-Related Injury

See Occupational Injury.

# APPENDIX 3: Glossary of causal factors

This glossary is provided to assist the user of the IOGP list of causal factors, to further define and explain the classifications. Since the causal factors selected will be used for trend analysis, accuracy in selecting the appropriate cause is important. Users are encouraged to use this glossary to ensure proper understanding of each cause category.

## **Following procedures**

**Violation intentional (by individual or group):** Deliberate deviations from rules, procedures, regulations, etc. An individual or a group of people fully aware that they were taking a risk, i.e. knowingly take short cuts, or failing to follow procedures, to save time or effort. Usually well-meaning, but misguided in an attempt to 'get the job done', e.g. operating equipment that they know they were not authorized for.

**Violation unintentional (by individual or group):** an individual or a group of people not aware that they were taking a risk, did not identify the hazard or were unaware of HSE requirements. The persons involved did not have sufficient awareness, training or competence to perform the tasks required in accordance with procedures, procedures were inadequate or were not properly implemented, no procedures available for the task.

**Improper position (in the line of fire):** person(s) were located in a position where they were exposed to a hazard, e.g. between a moving and a fixed object, in the line of a moving counterweight, standing under a suspended load, positioned under or behind a vehicle, in the path of a material release from an energized system, etc.

**Overexertion or improper position/posture for task:** the person did more than they were physically able to do or did not follow the proper ergonomic practice, e.g., carrying too much weight, or placing body parts in unsafe positions which resulted in physical strain.

**Work or motion at improper speed:** the person involved was not working at the proper speed, not taking time to do things safely, e.g. driving too fast, running down stairs or adding chemicals too fast or too slowly, etc.

**Improper lifting or loading:** material being lifted, either by human or mechanical means, was not lifted or loaded/unloaded in accordance with proper practices or was over the capacity of the person or the lifting equipment, e.g. a vehicle or equipment loaded to one side or overloaded.

## **Use of tools, equipment, materials and products**

**Improper use/position of tools/equipment/materials/products:** tools/equipment/materials or products were used for activities for which they were not designed or were misused, e.g. wrong tool for the job, using excessive force on a tool (such as the use of cheater bars), operating equipment beyond the maximum recommended temperature, operating speed or pressure. Knowing that the tools or equipment were defective and continuing the work, e.g. running a forklift with leaking hydraulics. Using a product which was known to be out of specification or wrong for the application. Materials placed in potentially hazardous position, e.g. equipment too heavy for surface it was placed on, restricted access to essential controls, products placed in location where likely to be damaged etc.

**Servicing of energized equipment/inadequate energy isolation:** servicing equipment without turning it off or without it being electrically or mechanically safeguarded according to energy isolation and equipment opening procedures, e.g. lockout tag out, e.g. trying to clear a jammed machine, cleaning out a plugged line, etc.

### Use of protective methods

**Failure to warn of hazard:** the person involved in the event was not warned about a dangerous condition or activity, or an individual was aware of a hazard but did not warn current or future persons involved of the exposure, e.g. not using 'out of service' tags on a defective tool, inadequate signage, no barriers placed around an open hole.

**Inadequate use of safety systems:** safety systems were not adequately used, e.g. any permit to work not properly used, confined space entry requirements were not followed, e.g. no gas testing performed, equipment was not properly isolated and the people involved were exposed to chemicals, hot surfaces, pressure, electricity, etc.

**Personal Protective Equipment not used or used improperly:** equipment prescribed in the procedures was not used, was not available or the required Personal Protective Equipment was used, but it was not used in the proper way, e.g. no safety harness worn when required for working at height, poorly fitted respiratory protection, incorrect type of respirator or safety glasses worn when safety goggles were prescribed.

**Equipment, or materials not secured:** equipment or materials was not secured against movement or falling, e.g. ladder not secured, materials not stacked properly, insecure scaffolding, working at height with unsecured tools, e.g. not tied off.

**Disabled or removed guards, warning systems or safety devices:** the proper guards, warning systems or other safety devices were either in place, but were disabled or overridden to allow the work to proceed without these protections or had been removed at some prior time, and not reinstalled or reactivated.

### Inattention/lack of awareness

**Improper decision making or lack of judgement:** the situation was wrongly judged and the wrong decision was made or person(s) involved in the event were engaged in inappropriate activities, including practical jokes.

**Lack of attention/distracted by other concerns/stress:** the person involved was performing a routine activity, such as walking, sitting down, stepping, etc. without conscious thought or was distracted and not attentive to the work in progress. The person was under high stress from either work/personal issues or conflicting directions/demands contributed to an incident or the work being done required judgement and decision making that created stress, e.g. time sensitive decisions, high stakes in the outcome, incomplete information in which to base the decision.

**Acts of violence:** any type of physical or mental confrontations that can cause bodily injury or mental distress.

**Use of drugs or alcohol:** person(s) involved in the event may have been or were found to be under the influence of drugs or alcohol (illegal or legal which affect performance).

**Fatigue:** person(s) involved were mentally tired for whatever reason, e.g. excessive work hours, shift patterns, staffing levels insufficient, ill-health, etc. The loss of situational awareness, task fixation, distraction, and mental fatigue due to sleep loss are examples of conditions that apply to this causal factor.

## Process (conditions) classifications

Process (Conditions) classifications usually involve some type of physical hazard or organizational aspect out with the control of the individual. There are five major classification categories, with an additional level of detail under each of the major categories.

### Protective systems

**Inadequate/defective guards or protective barriers:** adequate guards and protective barriers that were needed to protect the worker were not present or did not provide sufficient protection or failed at the time of the incident.

**Inadequate/defective Personal Protective Equipment:** the Personal Protective Equipment used was not adequate for the situation at the time of the incident, the wrong type of PPE was specified, the PPE was defective at the time of the incident or PPE was not properly maintained or inspected.

**Inadequate/defective safety devices/warning systems:** safety devices such as pressure relief valves or over-speed trip devices were present, but did not act quickly enough to prevent the incident or failed to activate at the time of the event. No safety device(s) in place when it should have been. Inadequate warning systems were present or adequate warning systems failed to provide notice at the time of the incident or no warning system in place when it should have been.

**Inadequate security provisions or systems:** security systems were present such as perimeter fencing, alarm systems, security guards, security contracted services etc. but did not function as intended to protect facilities and personnel as appropriate. Also, no security provisions or systems in place when they should have been.

### Tools, equipment, materials & products

**Inadequate design/specification/management of change:** the design or engineering of the plant/equipment did not adequately take into account HSE issues or the management of change processes were inadequate or not applied effectively. This could be applicable either to changes to the plant/equipment or to changes in procedures.

**Inadequate/defective tools/equipment/materials/products:** the tools/ equipment/ materials/ products needed to do the job were in some way inadequate, not supplied, were defective or were not prepared adequately prior to the job, e.g. tools in poor condition or not cleaned of contaminants, a vessel not thoroughly cleaned of chemicals prior to entry, a pallet of chemicals not adequately packaged, lifting equipment not suitably rated for a lift.

**Inadequate maintenance/inspection/testing:** facilities, infrastructure or equipment was not subject to adequate maintenance, inspection and/or testing not performed as required to ensure asset integrity.

### Work place hazards

**Congestion, clutter or restricted motion:** design of the workplace was poor and not enough clearances were available or accessibility was inadequate. Housekeeping was inadequate or work location was not clean and orderly.

**Inadequate surfaces, floors, walkways or roads:** the incident was caused by an inadequate surface, floor or walkway e.g. slippery stairs, uneven concrete or paving, ungraded road with potholes, etc.

**Hazardous atmosphere (explosive/toxic/asphyxiant):** the workplace was contaminated with flammable or explosive materials in concentrations which on contact with a source of ignition may cause a fire or explosion or concentrations of toxic chemicals above workplace exposure limits or oxygen levels below safe breathing limits.

**Storms or acts of nature:** the incident was a direct or indirect result of a storm, tornado, hurricane, lightening, hail storm, flood, earthquake, etc.

### **Organizational**

**Inadequate training/competence:** the organization did not provide adequate training and/or did not take appropriate measures to ensure the competence of person(s) performing tasks.

**Inadequate work standards/procedures:** the systems of work, processes or procedures provided by the organization were not adequate to effectively control the risks involved in the task, i.e. procedures may have been in place and implemented but the requirements stated were insufficient, e.g. confined space entry permit system which does not specify a requirement to gas test prior to entry.

**Inadequate hazard identification or risk assessment:** the person(s) involved in the work either did not recognise the hazard present or did not fully understand the risks involved, e.g. the pre-job checks or tool box talks did not cover appropriate issues.

**Inadequate communication:** the communication of the requirements of the task and the controls required were inadequate to effectively control the risks and/or inform the involved person(s).

**Inadequate supervision:** the organization did not provide adequate supervision for person(s) performing tasks.

**Poor leadership/organizational culture:** the organization did not reinforce the correct behaviours, participation in safety efforts were not effective, and/or support of people not effective (i.e. the leaders in an area did not demonstrate appropriate personal behaviours with respect to their role in seeking out and supporting those individuals who identify and speak out about safety issues and concerns, or those people affected by an incident).

**Failure to report/learn from events:** one or more similar events has previously occurred, there was a failure to learn from these incidents, e.g. not all events reported or those reported were inadequately investigated or additional control measures identified as required were not effectively implemented.

# APPENDIX 4: Frequently Asked Questions

## Security – Under what circumstances should security related incidents be reported?

Security related incidents (e.g. fatalities associated with an illegal detention of staff) should be reported where they are work-related, or where there is, or ought to be, management controls in place to reduce the possibility of the incident occurring.

## Suicides – Under what circumstances should suicides be reported?

It is not expected that suicides will be reported. However if an organization deems it to be work-related it can be reported using Forms 1 and 2.

## OSHA vs. IOGP – What are the differences between reporting under the OSHA and IOGP requirements?

The main difference between IOGP and OSHA reporting requirements relates to the need for E&P organizations to report incidents

- associated with their own personnel
- contractor and sub-contractor personnel. The focus of the OSHA reporting requirements relates to company personnel. Additionally, IOGP encourages the reporting of third party fatalities.

With respect to the reporting of medical treatment cases, the IOGP and OSHA are aligned, such that a MTC reported under OSHA should also be reported to IOGP. There are some differences in how IOGP and OSHA establish work-relatedness with the IOGP requirements being more inclusive.

- prescription medications
- home away from home does not apply
- OSHA 24 hours ruling does not apply
- IOGP data are presented per million work hours
- parking lot or company property commuting incidents.

NB: Definitions and scope change over time and there may be other differences that have not been taken into account here so this list should **not** be treated as definitive or complete.

## What is 'prescription medication'?

Where local regulations specify prescription medication and dosage these will be followed for the purposes of IOGP reporting. Where 'prescription medication' is not defined by the local regulatory system the reporting company is responsible for defining prescription medicines and dose rates.

# APPENDIX 5: Report forms – guidance only

IOGP Safety Data Report

**REPORT 1 - OCCUPATIONAL INJURIES - 2014 data**

Company								
Contact name/title								
Year								
Country								
Total number of fatal incidents involving employee, contractor or 3rd party fatalities:								
(This should tally with the number of report 2 worksheets.)								
<b>PSE REPORTING - Indicate 'yes' or 'no' for the data on this worksheet - REQUIRED:</b>								
Are the drilling/production work hours reported here for operations relevant to Process Safety Event reporting?								
If yes indicate for this country whether:								
There were PSE and I will be entering the figures in Report 6								
It is known that there were zero PSE								
I do not know the PSE figures so will not be entering anything in Report 6								
The following data are collected (enter zeros in appropriate box)								
COMPANY EMPLOYEES		Yes No						
Last Workday Case (LWDC) Days			RWDC Days	Yes No				
Restricted Workday Cases (RWDCs)			Medical Treatment Cases					
<b>A</b>	<b>OFFSHORE</b>							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days
Exploration								
Production								
Drilling								
Construction								
Unspecified								
Total	0	0	0	0	0	0	0	0
Note: 'Hours Worked' are based on actual hours. The average 'Hours Worked' are about 2000 per man year.								
<b>B</b>	<b>OFF SHORE</b>							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days
Exploration								
Production								
Drilling								
Construction								
Unspecified								
Total	0	0	0	0	0	0	0	0
Note: 'Hours Worked' to be based on 12 hour dayshift. Thus, depending upon on/off ratio, hours worked vary between 1600 and 2300 per man year.								
<b>CONTRACTOR EMPLOYEES</b>								
CONTRACTOR EMPLOYEES		Yes No						
Last Workday Case (LWDC) Days			RWDC Days	Yes No				
Restricted Workday Cases (RWDCs)			Medical Treatment Cases					
<b>C</b>	<b>OFFSHORE</b>							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days
Exploration								
Production								
Drilling								
Construction								
Unspecified								
Total	0	0	0	0	0	0	0	0
Note: 'Hours Worked' are based on actual hours. The average 'Hours Worked' are about 2000 per man year.								
<b>D</b>	<b>OFF SHORE</b>							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days
Exploration								
Production								
Drilling								
Construction								
Unspecified								
Total	0	0	0	0	0	0	0	0
Note: 'Hours Worked' to be based on 12 hour dayshift. Thus, depending upon on/off ratio, hours worked vary between 1600 and 2300 per man year.								
<b>3RD PARTY</b>								
<b>E</b>	<b>Fatalities</b>							
FUNCTION	Onshore	Offshore						
Exploration								
Production								
Drilling								
Construction								
Unspecified								
Total	0	0						

**REPORT 1A - LOST WORKDAY CASE BREAKDOWN BY CATEGORY - 2014 data**

**REPORT 1B - LOST WORKDAY CASE BREAKDOWN BY ACTIVITY - 2014 data**

Company	
Contact name/Title	
Year	
Country	

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**COMPANY EMPLOYEES**

**CONTRACTOR EMPLOYEES**

**REPORT 2 - FATAL INCIDENTS - 2014 data**

Country	
Contractor/Supplier	
Date	
Country	

**Incident details**

Date of incident (day/month/year):	
Place of incident (ring one)	ONSHORE OFFSHORE
Time incident occurred (or time of day):	
Incident description:	
What went wrong? (main root cause):	
Lessons learned and recommendations to prevent reoccurrence:	

Was this incident also classified as a Tier 1 Asset Integrity / Process Safety Event? (see Report 10)

Enter Yes or No

<b>A COMPANY EMPLOYEES</b>				
FUNCTION (VICTIM)	No. of Fatalities from Incident	Occupation of Victim	Age	Medical Cause of Death
Exploration				
Production				
Drilling				
Construction				
Unspecified				

<b>B CONTRACTOR EMPLOYEES</b>				
FUNCTION (VICTIM)	No. of Fatalities from Incident	Occupation of Victim	Age	Medical Cause of Death
Exploration				
Production				
Drilling				
Construction				
Unspecified				

<b>C THIRD PARTIES</b>				
No. of Fatalities from Incident				

Function (incident): (ring one only)	EXPLORATION PRODUCTION DRILLING CONSTRUCTION UNSPECIFIED
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Incident category (ring one - required)	Assault and Violent act Caught In, Under or Between Confined Space Cut, Piercing, Scratch Explosion / Blast Exposure Electrical Exposure Noise, Chemical, Biological, Vibration	Falls from height Overexposure / Strain Pressure release Slip and Trips (at same height) Struck By Water related, Drowning Other
--	---	--

Type of activity: (ring one - required)	Construction, Commissioning, Decommissioning Drilling, Subsea, ROV Dredging / Workover / Well Services Lifting, Crane, Rigging, Deck Operations Maintenance, Inspection, Testing Office, Warehouse, Accommodation, Catering	Protection Operations Seismic / Survey Transport - Air Transport - Land Transport - Water, incl. Unspecified - Other
--	--	---

Causal factors (ring as many as apply) See User Guide Appendix 3A.	<b>PEOPLE (ACTS)</b> Following Procedures: <input type="checkbox"/> Violent / intentional (by individual or group) <input type="checkbox"/> Violent / unintentional (by individual or group) <input type="checkbox"/> Improper position (in the line of fire) <input type="checkbox"/> Overexposure or improper position/location for tank <input type="checkbox"/> Work at height at improper speed <input type="checkbox"/> Improper lifting or loading Use of Tools, Equipment, Materials and Products: <input type="checkbox"/> Improper use/position of tools/equipment/materials/products <input type="checkbox"/> Sealing of energized equipment/inadequate energy isolation Use of Protective Methods: <input type="checkbox"/> Failure to wear of hazard <input type="checkbox"/> Inadequate use of safety systems <input type="checkbox"/> Personal Protective Equipment: not used or used improperly <input type="checkbox"/> Equipment or materials not secured <input type="checkbox"/> Disabled or remove guards, warning systems or safety devices Inattention/Lack of Awareness: <input type="checkbox"/> Improper decision making or lack of judgement <input type="checkbox"/> Lack of attention/distacted by other concern/stress <input type="checkbox"/> Acts of Violence <input type="checkbox"/> Use of drugs or alcohol <input type="checkbox"/> Fatigue	<b>PROCESS</b> Protective Systems: <input type="checkbox"/> Inadequate/inffective guards or protective barriers <input type="checkbox"/> Inadequate/inffective Personal Protective Equipment <input type="checkbox"/> Inadequate/inffective warning systems/safety devices <input type="checkbox"/> Inadequate security provisions or systems Tools, Equipment, Materials, Products: <input type="checkbox"/> Inadequate design/specification or management of change <input type="checkbox"/> Inadequate/inffective tool/equipment/materials products <input type="checkbox"/> Inadequate maintenance/inspection/testing Work Place Hazards: <input type="checkbox"/> Congestion, clutter or restricted motion <input type="checkbox"/> Inadequate surfaces, floors, walkways or roads <input type="checkbox"/> Hazardous atmosphere (explosive/toxic/irritant/physical) <input type="checkbox"/> Stairs or acts of status Organisational: <input type="checkbox"/> Inadequate training/compliance <input type="checkbox"/> Inadequate work standards/procedures <input type="checkbox"/> Inadequate hazard identification or risk assessment <input type="checkbox"/> Inadequate communication <input type="checkbox"/> Inadequate supervision <input type="checkbox"/> Poor leadership/organisational culture <input type="checkbox"/> Failure to report/learn from incidents
--	--	--

Life-Saving Rule (ring one)	Confined space Dropped objects Drugs and alcohol Excavation Gas test Isolation Journey management Lift plan Line of fire - safe area Overhead power lines	Permit to work PPE (including fall arrest device) Seat belt Smoking Speeding / phone Suspended load System override Work at height [Insufficient information to assign a rule] [No appropriate rule]
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**REPORT 3 - HIGH POTENTIAL EVENTS - 2014 data**

Company	
Contact name/title	
Year	
Country	

**Event details**

Place of event (please ring one):	ONSHORE OFFSHORE
Function (please ring one):	EXPLORATION PRODUCTION DRILLING CONSTRUCTION UNSPECIFIED
Date of event (day/month/year):	[ ]
Event description:	[ ]
What went wrong? (main root causes):	[ ]
Lessons learnt and recommendations to prevent reoccurrence:	[ ]

Was this incident also classified as an Asset Integrity / Process Safety Event? (see Report 6)		Enter 'yes' or 'no'
Event category (ring one - required)	Assault and Violent act Caught In, Under or Between Confined Space Cut, Puncture, Scrape Explosion / Burn Exposure Electrical Exposure Noise, Chemical, Biological, Vibration	Falls from height Overexertion / Strain Pressure release Slips and Trips (at same height) Struck By Water related Other
Type of activity: (ring one - required)	Construction, commissioning, decommissioning Diving, Subsea, ROV Drilling, Workover, Well Services Lifting, Crane, Rigging, Deck Operations Maintenance, Inspection, Testing Office, Warehouse, Accommodation, Catering	Production operations Seismic / Survey Operations Transport - Air Transport - Land Transport - Water, incl. Marine Activity Unspecified - Other
Causal factors (ring as many as apply) See User Guide Appendix 3A	<p>PEOPLE (ACTS)</p> <p>Following Procedures:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Violation intentional (by individual or group)</li> <li><input type="checkbox"/> Violation unintentional (by individual or group)</li> <li><input type="checkbox"/> Improper position (in the line of fire)</li> <li><input type="checkbox"/> Overexertion or improper position/posture for task</li> <li><input type="checkbox"/> Work or motion at improper speed</li> <li><input type="checkbox"/> Improper lifting or loading</li> </ul> <p>Use of Tools, Equipment, Materials and Products:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Improper use/position of tools/equipment/materials/products</li> <li><input type="checkbox"/> Servicing of energized equipment/inadequate energy isolation</li> </ul> <p>Use of Protective Methods:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Failure to warn of hazard</li> <li><input type="checkbox"/> Inadequate use of safety systems</li> <li><input type="checkbox"/> Personal Protective Equipment not used or used improperly</li> <li><input type="checkbox"/> Equipment or materials not secured</li> <li><input type="checkbox"/> Disabled or remove guards, warning systems or safety devices</li> </ul> <p>Inattention/Lack of Awareness:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Improper decision making or lack of judgment</li> <li><input type="checkbox"/> Lack of attention/distracted by other concerns/stress</li> <li><input type="checkbox"/> Acts of violence</li> <li><input type="checkbox"/> Use of drugs or alcohol</li> <li><input type="checkbox"/> Fatigue</li> </ul>	<p>PROCESS (CONDITIONS)</p> <p>Protective Systems:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inadequate/defective guards or protective barriers</li> <li><input type="checkbox"/> Inadequate/defective Personal Protective Equipment</li> <li><input type="checkbox"/> Inadequate/defective warning systems/safety devices</li> <li><input type="checkbox"/> Inadequate security provisions or systems</li> </ul> <p>Tools, Equipment, Materials, Products:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inadequate design/specification or management of change</li> <li><input type="checkbox"/> Inadequate/defective tools/equipment/materials/ products</li> <li><input type="checkbox"/> Inadequate maintenance/inspection/testing</li> </ul> <p>Work Place Hazards:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Congestion, clutter or restricted motion</li> <li><input type="checkbox"/> Inadequate surfaces, floors, walkways or roads</li> <li><input type="checkbox"/> Hazardous atmosphere (explosive/toxic/asphyxiant)</li> <li><input type="checkbox"/> Storms or acts of nature</li> </ul> <p>Organisational:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inadequate training/competence</li> <li><input type="checkbox"/> Inadequate work standards/procedures</li> <li><input type="checkbox"/> Inadequate hazard identification or risk assessment</li> <li><input type="checkbox"/> Inadequate communication</li> <li><input type="checkbox"/> Inadequate supervision</li> <li><input type="checkbox"/> Poor leadership/organisational culture</li> <li><input type="checkbox"/> Failure to report/learn from incidents</li> </ul>
Life-Saving Rule (ring one)	Confined space Dropped objects Drugs and alcohol Excavation Gas test Isolation Journey management Lift plan Line of fire - safe area Overhead power lines	Permit to work PPE (including flotation device) Seat belt Smoking Speeding / phone Suspended load System override Work at height [Insufficient information to assign a rule] [No appropriate rule]

**REPORT 5 - MOTOR VEHICLE CRASHES (MVC) - 2014 data**

Company	
Contact name/title	
Year	
Country	

**A COMPANY****Million kilometers driven**

Indicate types of crash incidents for which you have data and will be reporting  
(even if there were 0 incidents) and the number of crash incidents

If a value is known to be 0 enter 0. Enter n/k if not known (as you have indicated using the yes/no boxes)	Reported		Number of crash incidents
	YES	NO	
1. MVCs leading to at least one fatality (includes 3rd party fatality)	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
2. MVCs leading to LWDC as most severe outcome	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
3. MVC leading to MTC or RWDC as most severe outcome	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
4. MVC involving a rollover - not resulting in a fatality, LWDC, RWDC or MTC			
5. MVC, where the vehicle cannot be driven from the scene under its own power			
Sum total of the above*	Total		0

\* if breakdown is not available, total number of MVCs leading to fatality, LWDC, TRI, rollover or where the vehicle cannot be driven from the scene under its own power.

**B CONTRACTOR****Million kilometers driven**

Indicate types of crash incidents you have data on and will be reporting  
(even if there were 0 incidents) and the number of crash incidents

If a value is known to be 0 enter 0. Enter n/k if not known (as you have indicated using the yes/no boxes)	Reported		Number of crash incidents
	YES	NO	
1. MVCs leading to at least one fatality (includes 3rd party fatality)	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
2. MVCs leading to LWDC as most severe outcome	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
3. MVC leading to MTC or RWDC as most severe outcome	a. Not involving a rollover		
	b. Involving a rollover		
	c. Unknown if rollover involved		
4. MVC involving a rollover - not resulting in a fatality, LWDC, RWDC or MTC			
5. MVC, where the vehicle cannot be driven from the scene under its own power			
Sum total of the above*	Total		0

\* if breakdown is not available, total number of MVCs leading to fatality, LWDC, TRI, rollover or where the vehicle cannot be driven from the scene under its own power.

REPORT 6 - PROCESS SAFETY EVENTS - 2014 DATA

Customer	
Contact Information	
Type	
Comments	

Process Safety Events (PSE): is a lagging indicator based on Loss of Primary Containment (LOPC). There are two "levels" of PSE, Tier 1 or more severe than Tier 2. By applying the indicator definitions, companies can determine whether an LOPC is a Tier 1 or a Tier 2-PSE. The aim of this report is to collect both Tier 1 and Tier 2 PSE data from member companies using the four tables below. Two of the tables request additional PSE data about the material released and the operational activities. It is recognized that some of this data merely not be readily available within a company's internal reporting system.

The first data table below imports the number of offshore or onshore Tier 1 PSE for both drilling and production. The table also requires that companies import the number of consequences related to them Tier 1 PSE. Note that one PSE can result in multiple consequences, so the total number of consequences reported may equal or exceed the total number of PSE.

In addition to reporting an injury or fatality as a consequence in the "Employee or Contractor Fatality or LWICG" column, the first table also requests data on fatalities that resulted from PSE. Companies should enter the number of PSE that resulted in one or more fatalities, then in the next two columns enter the actual number of fatalities - employees and contractors, or third parties.

The Tier 2 batteries should be completed in the same way as the Tier 1 batteries, noting that certain categories, such as fatalities, are not relevant to Tier 2.

**EXAMPLE EVENT:** A unintended gas release from a valve (i.e. an LOPC) results in a fire causing damage with an estimated cost of \$10,000 to replace the valve, and also two people are treated for burns from the fire, and the return to work. This counts as one Tier 2 event in the "Total Process Safety Events" column of the Tier 2 table. However, this single event will have 2 separate consequences, and is reported in each of the consequence columns of the Tier 2 table below, as 1 PSE causing injury and 1 PSE causing a fire (note the two injuries only count as one PSE causing injury). If the amount of gas released during any hour of the event exceeded the thresholds given in Table 2, then this would add a third consequence for the same PSE, and count as one PSE in the material release column of the Tier 2 table. Note that if the gas released exceeded any of the Table 1 thresholds, then this would be a Tier 1 event.

Events that were caused by sabotage, without damage or an equivalent missed ONLY be entered in Report A.

TIER 2		Note: A single PSE may result in multiple consequences; therefore the total of all columns below should equal or exceed Total PSE.				
		CONSEQUENCE: Number of PSEs that resulted in these consequences (all that apply)				
Location	Function	Total Process Safety Events (PSE)	Emergency or Contractor Recountable Injury (inc. PSE)	Fine or enforcement > \$2,000 (excl. inc. PSE)	PRO discharges above Tier 2 thresholds (inc. PSE)	Material releases above Tier 2 thresholds (inc. PSE)
Offshore	production					
	stringing					
Onshore	production					
	levelling					

REPORT 6-A - PROCESS SAFETY EVENTS DUE TO SABOTAGE OR WILLFUL DAMAGE- 2014 DATA

**Answers**  
Lesson 1: **Connections**  
**Final**  
**Custom**

Process Safety Events (PSEs) is a lagging indicator based on Loss of Primary Containment (LOPC). These are two reports to collect both Tier 1 and Tier 2 PSEs. The aim of this report is to collect both Tier 1 and Tier 2 PSE data from member companies using the four tables below. Two of the tables request additional PSE data about the material released and the operational activities, but it is recognised that some of this data may not be readily available within a company's internal reporting system.

The first data table below exports the number of oil/gas or anhydrite Tier 1 PSE for both drilling and production. The table also requests that companies report the number of consequences related to their Tier 1 PSE. Note that one PSE can result in multiple consequences, so the total number of consequences reported may equal or exceed the total number of PSE.

In addition to reporting an injury or fatality as a consequence in the "Employee or Contractor Fatality or Injury" column, the first table also requests data on fatalities that resulted from PSE Companies should enter the number of PSE that resulted in one or more fatalities, then in the next two columns enter the actual number of fatalities - employees and contractors, or third parties.

The Tier 2 talents should be completed in the order as the Tier 3 talents, noting that certain categories, such as Selflessness, are not relevant for Tier 2.

**EXAMPLE EVENT:** A unintended gas release from a valve (i.e. an LOPEC) results in a fire causing damage with an estimated cost of \$10,000 to replace the valve, and also two people are treated for burns from the fire, and the return to work. This counts as one Tier 2 event in the "Total Process Safety Events" column of the Tier 2 table. However, this single event had 2 separate consequences, and is reported in each of the consequence columns of the Tier 2 table below, as 1 PSE causing injury and 1 PSE causing a fire (note the two injuries only count as one PSE causing impact). If the amount of gas released during any hour of the event exceeded the thresholds given in Tables 2, then this would add a third consequence for the same PSE, and count as one PSE in the material release column of the Tier 2 table. Note that if the gas released exceeded any of the Table 1 thresholds, then this would be a Tier 1 event.

Use this form to report only events that were caused by sabotage, willful damage or an encroachment. Events reported on this form must not be entered in Report 8.

**REPORT 5B - TIER 1 PSE REPORT - 2014 data**

Category	Contractor activities	Date	Comments
<b>Process Safety Event details</b>			
Date of event (day/month/year)			
Place of event (e.g. site)	DRILLING DRY HOLE		
Time event occurred (time of day)			
Incident description:			
What went wrong? (yes/no - required)			
Lessons learnt and recommendations to prevent recurrence			
<b>COMPANY EMPLOYEES</b>			
FUNCTION (VICTIM)	No. of Fatalities from Event	Description of Victim	Medical Cause of Death
Production			
Others			
<b>CONTRACTOR EMPLOYEES</b>			
FUNCTION (VICTIM)	No. of Fatalities from Event	Description of Victim	Medical Cause of Death
Production			
Others			
<b>THIRD PARTIES</b>			
No. of Fatalities from Incident			
<b>OII Health &amp; Safety Data Report</b> <b>REPORT 3 - VARIOUS INCIDENTS</b>			
Category	Contractor activities	Date	Comments
Function (Incident) (e.g. site - required)	PRODUCTION DRILLING		
Incident category (e.g. site - required)	Accidents and violent acts: Caught in, Under or Between: Confined Space: Cut, Punch, Shear: Explosion / Blast: Exposure / Electrical: Exposure / Noise, Chemical, Biological, Vibration	Falls from height: Overexposure / Stress: Pressure release: Slips and Trips (at same height): Struck By: Water-related, Drowning: Other	
Type of activity (e.g. site - required)	Construction, Commissioning, Dismantling: Drilling, Boring, RCIV Drilling / Irrigation / Well Services: Lifting, Crane, Rigging, Deck Operations: Maintenance, Inspection, Testing: Office, Warehouse, Accommodation, Cleaning	Production / Operations: Survey / Survey: Transport - Air: Transport - Land: Transport - Water, Sea: Unspecified - Other	
Control Systems (e.g. site - required)	Following Procedures: <ul style="list-style-type: none"> <li>a. Violation (individual or individual or group)</li> <li>b. Violation committed by individual or group</li> <li>c. Improper position (in the line of fire)</li> <li>d. Deviation from standard procedure/procedure fails</li> <li>e. Work as issued as improper speed</li> <li>f. Work as issued as incorrect sequence</li> <li>g. Use of Tools, Equipment, Materials and Products</li> <li>h. Improper use/position of tools/equipment/materials/elements</li> <li>i. Sourcing of unapproved equipment/technology/standards/elements</li> <li>j. Failure of approved equipment/technology/standards/elements</li> <li>k. Failure of Product Methods</li> <li>l. Failure to wear of PPE</li> <li>m. Inadequate use of safety systems</li> <li>n. Poor maintenance/Equipment not used as intended</li> <li>o. Equipment in incorrect not used correctly</li> <li>p. Failed or missing guards, warning systems or safety devices</li> <li>q. Inadequate art of assessment</li> <li>r. Improper decision making or lack of judgment</li> <li>s. Lack of attention/distracted by other considerations</li> <li>t. Act of violence</li> <li>u. Use of drugs or alcohol</li> <li>v. Fatigue</li> </ul>	Processors: Protective Systems: <ul style="list-style-type: none"> <li>a. Inadequate/inffective guards or protective barriers</li> <li>b. Inadequate/inffective Personal Protective Equipment</li> <li>c. Inadequate/inffective warning communication devices</li> <li>d. Inadequate security measures or systems</li> </ul> Tools / Equipment, Materials, Products: <ul style="list-style-type: none"> <li>a. Inadequate/inappropriate selection or management of change</li> <li>b. Inadequate/inappropriate handling/management of materials/products</li> <li>c. Inadequate/inappropriate manufacturing</li> </ul> Risk / Risk Hazard: <ul style="list-style-type: none"> <li>a. Congestion, clutter or restricted motion</li> <li>b. Inadequate surfaces, roofs, walkways or roads</li> <li>c. Hazardous atmosphere (Explosive/Hazardous/Liquid/hazardous)</li> <li>d. Slopes or acts of nature</li> <li>e. Inadequate lighting</li> <li>f. Inadequate training/compliance</li> <li>g. Inadequate work environment/conditions</li> <li>h. Inadequate hazard identification or risk assessment</li> <li>i. Inadequate communication</li> <li>j. Inadequate supervision</li> <li>k. Poor understanding/organisational culture</li> <li>l. Failure to report/learn from incidents</li> </ul>	
Risk factors (e.g. site - required)	1. Structural integrity: 2. Process / Contamination: 3. Ignition / Fire risk: 4. Inertisation / Losses: 5. Production / System: 6. Well down hole system - including well control, well isolation and drilling / well control equipment: 7. Emergency Response / Equipment and Systems: 8. Site / Facility - Personnel / Survival Requirements:  9. Human factors / Health: <ul style="list-style-type: none"> <li>a. Operating in environments with extremes</li> <li>b. Offshore locations of operations, climate and effects of safety culture, shift handing, etc.</li> <li>c. Demands on site, physical health and fatigue management</li> <li>d. Inadequate or incomplete training and qualification</li> <li>e. Acceptance of risks or lack of recognition of exposures</li> <li>f. Resistance to process plant and vessel conditions (e.g. outside safe envelope)</li> <li>g. Response to emergencies</li> </ul> 10. Support to field-based teams / Field: <ul style="list-style-type: none"> <li>a. Element 1 - Commitment and accountability</li> <li>b. Element 2 - Policies, standards and objectives</li> <li>c. Element 3 - Organisational structures and responsibilities</li> <li>d. Element 4 - Resources, skills and experience</li> <li>e. Element 5 - Risk assessment and control</li> <li>f. Element 6 - Audit design and delivery</li> <li>g. Element 7 - Risk control</li> <li>h. Element 8 - Communication of activities</li> <li>i. Element 9 - Monitoring, reporting and learning</li> <li>j. Element 10 - Assurance, review and implementation</li> </ul>		

**IOGP SAFETY DATA SELF ASSESSMENT QUESTIONNAIRE - 2014 DATA**

In order to improve the validation of IOGP member Companies Safety Data submissions, please complete the following questions relating to the Reporting Company Name:

Data Submission Year:

Have there been any major changes to your company? e.g. acquisitions

Have there been major changes in your company's geographic scope of operations? e.g. operations in 4 additional countries

Have there been any significant changes in the reporting of your company's Joint Venture operations in this year's data?

Have there been any other significant changes to your scope of reporting this year?

Please complete the following to the best of your knowledge, adding comments where applicable to clarify your answers.

**1 Work Relatedness**

- 1.1 Do you report in alignment with the IOGP work relatedness reporting definition?  
If not please explain

YES NO PARTIALLY COMMENTS

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**2 Work Hours**

- 2.1 Do you report in alignment with the IOGP definition of work hours?  
If not please explain

YES NO PARTIALLY COMMENTS

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**3 Definitions**

- 3.1 Do you use the updated definitions of MTC and FA in the IOGP User Guide for company and contractor reporting?  
3.2 Do you report lost or restricted calendar days associated with Lost Workday Cases and Restricted Duty Cases for company personnel?  
3.3 Do you report lost or restricted calendar days associated with Lost Workday Cases and Restricted Duty Cases for contractor personnel?

YES NO PARTIALLY COMMENTS

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**4 Motor Vehicle Crashes**

- 4.1 Do you report MVCs in accordance with the exclusions as defined in the IOGP User Guide?  
4.2 Do you report Company Motor Vehicle Crash roll-overs, for all the levels of severity as defined in the IOGP User Guide?  
4.3 Do you report Contractor Motor Vehicle Crash roll-overs, for all the levels of severity as defined in the IOGP User Guide?  
4.4 Do you report MVCs where the vehicle cannot be driven from the scene under its own power in a roadworthy state, where there is no fatality, LWDC, RWDC or MT?  
4.5 Does your company use and adhere to the IOGP Land Transportation Recommended Practice?  
4.6 Does your company require its contractors to use and adhere to the IOGP Land Transportation Recommended Practice?

YES NO PARTIALLY COMMENTS

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**5 Scope of reporting:**

- 5.1 Do you include E&P office and administrative personnel in your reporting?  
5.2 Do you include Joint Ventures under Company operational control in your reporting?  
5.3 Do you report in alignment with the IOGP process safety event definitions in the IOGP User Guide?

YES NO PARTIALLY COMMENTS

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**6 Contractors and subcontractors**

(Refer to section 1.4 of IOGP Report 423 for further details of contacting modes)

- 6.1 Do you include work hours and incidents associated with all contractors working under the company HSE MS and company operational control i.e. Mode 1 contractors?  
6.2 Do you include work hours and incidents associated with all contractors working under their own HSE MS with an interface to the company i.e. Mode 2 contractors?  
6.3 Do you include work hours and incidents associated with Fabrication Yards contractors under Modes 1 and 2?  
6.4 Do you include mobilisation and demobilisation when reporting under Mode 2 contracts?

YES NO PARTIALLY COMMENTS

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**7 Process Safety**

- 7.1 Do you report Process Safety Events for production operations in accordance with Tier 1 requirements as defined in IOGP Report 456? If partial please indicate the percentage of your reported "Production" work hours which are represented.  
7.2 Do you report Process Safety Events for production operations in accordance with Tier 2 requirements as defined in IOGP Report 456? If partial please indicate the percentage of your reported "Production" work hours which are represented.  
7.3 Do you report Process Safety Events for drilling operations in accordance with Tier 1 requirements as defined in IOGP Report 456? If partial please indicate the percentage of your reported "Drilling" work hours which are represented.  
7.4 Do you report Process Safety Events for drilling operations in accordance with Tier 2 requirements as defined in IOGP Report 456? If partial please indicate the percentage of your reported "Drilling" work hours which are represented.  
7.5 Have you completed the additional spreadsheet to indicate process safety events that meet the reporting criteria for Tier 1 and Tier 2 which were as a result of sabotage, willful damage or equivalent?

YES NO PARTIALLY COMMENTS

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