

DATA SERIES

Safety data reporting user guide – Scope and definitions (2022 data)



Acknowledgements

This Report was prepared by the IOGP Safety Committee.

Feedback

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1. Introduction

The International Association of Oil and Gas Producers (IOGP) 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.

These data are held securely within IOGP's systems and all data is completely sanitized, removing all individual, company, and unique identifier references before publishing.

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 reports produced provide 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 International Regulator's Forum, an organization of 10 leading regulators from Australia, Brazil, Canada, Denmark, Mexico, The Netherlands, New Zealand, Norway, the United Kingdom and the United States of America, as well as observers from Ghana and Ireland regulatory bodies, attended their Annual General Meeting in Aberdeen on the 4th, 7-8th June 2018. After this meeting they called upon the industry to improve sharing of safety data. An extract of the Communiqué dated 8th June 2018 is given below.

"The opportunity for the next step change in safety performance appears to be in a substantial increase in the sharing of data across industry. Leading practices in other industries (i.e., transportation) may be adopted in the oil and gas industry to similar effect. This builds upon the theme that was expressed during the Safety30 conference, held in conjunction with Oil and Gas UK and reflecting the 30th anniversary of the 167 lives lost on the Piper Alpha catastrophe. **The IRF calls upon industry to recognize the value of this data sharing in the improvement in safety performance and take this on as a priority by the board and CEOs of the respective industry companies.**"

IRF 8th June 2018

The open sharing of incident and accident data is essential for learning if we are to eliminate fatalities in the upstream oil and gas industry.

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 Section 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 unique company identifier code is used to identify own company data and 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 standard forms that are described in this guide. A separate form should be completed 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)
- an injury requiring medical treatment (medical treatment case, see Appendix 1)

Report 1A: Lost Workday Case Breakdown

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

The intent of gathering the detailed information is to provide industry with focus areas to work on to improve our safety performance.

Report 2: Fatal Incidents

Used to provide additional information on work-related fatalities as a result of an injury, rather than an illness. Whenever 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 5 and 5B (to capture barrier failures).

Report 3: High Potential Events

A high potential event is an event which could have, under slightly different circumstances, realistically resulted in a fatal incident. 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 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 5.

Report 4: Motor Vehicle Crashes

Used for reporting the number and severity of Motor Vehicle Crashes and fatalities. These data are used for industry performance benchmarking in line with the IOGP Report 365 - *Land Transportation Recommended Practice* <http://www.iogp.org/bookstore/product/land-transportation-safety-recommended-practice>.

Report 5: 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.iogp.org/bookstore/product/process-safety-recommended-practice-on-key-performance-indicators>.

Part F of Report 456 provides Process Safety Upstream PSE examples.

The IOGP publications are consistent with API Recommended Practice 754, *Process Safety Performance Indicators for the Refining and Petrochemical Industries* (2nd edition).

Report 5A: Process Safety Events – sabotage or wilful damage

PSE incidents related to sabotage or wilful damage are reported separately in Report 5A.

Report 5B: Tier 1 Process Safety Event Descriptions

Report 5B is used for the submission of event descriptions for Tier 1 PSE including barrier failures.

Report 6: Well Control Incidents

Used for reporting the number of Level 1, 2 and 3 Well Control Incidents.

Report 6A: Well Control Incident Descriptions

Report 6A is used for the submission of event descriptions for Level 1, 2 and 3 Well Control Incidents including barrier failures.

Report 7: Permanent Impairments (PI)

Used for reporting the number of PI injuries

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

Joint Venture Operations

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

In the case of **Joint Ventures** where the operating company is 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 reporting the relevant information.

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 which operating company reports the relevant 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). Note: IOGP does not collect information on illnesses.
- occurs during a commute from the home to the normal place of work or first stop unless the commute uses company-mandated transport.

Work-relatedness - Home Based Workers

Injuries that occur while an employee is working at home, including work in a home office, will be considered work-related if the injury occurs while the employee is performing work for pay or compensation in the home, and the injury is directly related to the performance of work rather than to the general home environment or setting.

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

3.2 Occupational injury definitions

An **occupational injury** is any injury such as a cut, sprain, fracture, 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, or 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 (reports 1 and 1LWDC): 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 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 (Number of 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.

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 2017:

Mode 1 – The contractor provides people, processes and/or equipment for the execution of the contract under the oversight, instructions and HSE Management System 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 for the contract. This mode requires the contractor reports HSE performance data, including events and incidents, to the client.

Typically, this could apply to scopes of minor modification or maintenance/turnaround work on a client owned and/or operated site.

Mode 2 – The contractor provides people, processes, equipment and/or facilities for the execution of the contract, as a main rule, under its own HSE Management System, providing the necessary instructions and oversight and verifying the proper functioning of its HSE Management System.

This mode requires interfacing or bridging with the client's HSE Management System and reporting HSE performance data, including events and incidents, to the client. The client is responsible for assuring the overall effectiveness of the HSE management controls put in place by the contractor, including its interface with subcontractors, and ensuring that both the client's and the contractor's HSE Management System are compatible.

This could apply to scopes of work on either contractor, client or third party owned/operated sites. The location will typically drive the level of interfacing and bridging required based on risk.

Mode 3 – The contractor provides people, process, equipment, and/or facilities for the execution of the contract under its own oversight, instruction, and HSE Management System that requires no interfacing or bridging with the client's HSE Management System and is not required to report HSE performance data including events and 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; may provide product quality or environmental specifications, quality control and acceptance testing, etc.; and/or may insist that the contractor comply with a code of conduct which addresses human rights, labour rights, corruption, etc.

Typically, this could apply to scopes of work on contractor owned/operated sites or third party sites, and include examples such as:

- manufacturing of products produced for the open market, which client purchases (e.g., vehicles)
- manufacturing of components in a factory together with the manufacture of components for other customers
- construction at contractor sites shared by other customers
- delivery of good or products to client locations by a contractor who is in business to deliver to many other companies
- activities in shared port facilities, in particular the 'international' port areas before customs clearance
- activities of military or law enforcement agencies, over which client cannot exercise control

Other Mode 3 contractors provide services that can have HSE implications to the client such that their service performance and management still require assessing prior to use and ongoing monitoring by the client.

Examples include:

- any type of non-dedicated medical services, clinic or hospital
- catering supplied vendors
- hotels and other leased housing or office space
- taxi and limousine companies
- public transport including airlines

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.

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 Section 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.

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 5 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:

The production work function includes:

- work on producing or injection 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, CO₂ 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 including regasification
- flow-lines between wells and pipelines between facilities associated with field production operations
- oil and gas storage and 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

The production work function excludes:

- production drilling or workover operations
- 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 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 5 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., 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.

3.8 Body part injured

The following list should be used for the reporting of Lost Work Day Cases, Permanent Impairment Cases and fatal incident descriptions.

- Arm/elbow/shoulder
- Brain
- Ear(s)
- Eye(s)
- Feet/ankle
- Fingers/thumb
- Hand/wrist
- Head (incl. mouth)
- Genitalia or other sexual organs
- Internal organs (can be used for injuries involving electrocution, asphyxiation or exposure to toxic materials/gases)
- Leg/knee/hip
- Neck/torso/spine
- Respiratory system (can be used for injuries involving electrocution, asphyxiation, exposure to toxic materials/gases or drowning)
- Psychological injury
- Toes

3.9 Nature of injury

The following list should be used for the reporting of Lost Work Day Cases, Permanent Impairment Cases and fatal incident descriptions.

- Amputation
- Bite, sting, animal attack/allergic reaction
- Bruise or contusion
- Burn
- Chemical or physical irritation or exposure
- Concussion
- Crushing
- Cut, Puncture, Scrape
- Decompression illness

- Electric shock
- Fracture
- Hearing loss or damage
- Inhalation, poisoning, intoxication, asphyxiation, drowning
- Loss of consciousness
- Loss of cognitive function/brain injury (e.g. resulting in seizures/epilepsy)
- Major/multiple system trauma
- Nerve damage/loss of musculoskeletal function/mobility impairment
- Organ function/loss or damage
- Paralysis
- Permanent disfigurement
- Psychological trauma
- Sensory loss/damage (e.g., hearing, sight, taste, smell)
- Shot
- Sprain, strain
- Temperature-related - cold
- Temperature-related - heat
- Vibration-related

3.10 Incident/event causes

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

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

3.11 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 (including decompression), Subsea, ROV
- Drilling, Workover, Well Operations
- Excavation, trenching, ground disturbance
- 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

3.12 Causal factors

The following list of causal factors should be used for Reports 2, 3 and 6B.

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, it is important to accurately select the appropriate cause. Users are encouraged to use Appendix 3 to ensure they fully understand 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:

Deviation intentional (by individual or group)

Deviation 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 four 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

Causal factors for Well Control Incidents, Report 6A, are as follows:

PEOPLE (ACTS)

Following Procedures:

Deviation intentional (by individual or group)

Deviation unintentional (by individual or group).

Inattention/Lack of Awareness:

Use of drugs or alcohol

Fatigue

PROCESS (CONDITIONS)

Protective Systems:

Inadequate/defective guards or protective barriers

Inadequate/defective warning systems/safety devices

Tools, Equipment, Materials, Products:

Inadequate design/specification

Work Place Hazards:

Storms or acts of nature

Organizational:

Inadequate supervision

Poor leadership/organizational culture

Failure to report/learn from events

Poor management of change

3.13 Life-Saving Rules

The following list of Life-Saving Rules should be used for the reporting of fatal incidents and high potential events. This list represents Life-Saving Rules which are described in more detail in Report 459 - IOGP *Life-Saving Rules*, <http://www.iogp.org/bookstore/product/life-saving-rules>. The most specific Life-Saving Rule should be selected.

Bypassing safety controls

Obtain authorization before overriding or disabling safety controls

Confined space

Obtain authorization before entering a confined space

Driving

Follow safe driving rules

Energy isolation

Verify isolation and zero energy before work begins

Hot work

Control flammables and ignition sources

Line of fire

Keep yourself and others out of the line of fire

Safe mechanical lifting

Plan lifting operations and control the area

Work authorization

Work with a valid permit when required

Work at height

Protect yourself against a fall when working at height

Other

Any other issue not covered by a Life-Saving Rule

Unspecified

Information either not available or reporting organization has chosen not to assign a Life-Saving Rule.

3.14 Motor vehicle crash definitions

The scope for the reporting of Motor Vehicle Crashes (MVC) to IOGP applies to employees, contractors and their subcontractors and covers all light duty vehicles, mobile construction equipment, and heavy duty vehicles (bulldozer, earthmoving equipment, etc.) including buses or coaches.

Reference IOGP Report 365, <http://www.iogp.org/bookstore/product/guidance-note-5-common-kpis-for-motor-vehicle-crashes> for reporting guidance and definitions.

A list of worked examples for motor vehicle crash classifications is at Appendix 6.

Exclusions from reporting

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

- injuries that occur when entering or exiting the vehicle
- any event involving loading or unloading from the vehicle
- another vehicle crashes into the parked vehicle

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

- damage to or total loss of a vehicle solely due to environmental conditions or vandalism damage related to the theft of a vehicle
- superficial damage, such as a stone/rock chip damaging a windscreen/or paintwork, while the vehicle is being driven
- an event where there has been no collision or any other damage than to the vehicle itself, this includes but not limited to: engine fire, losing a wheel and brake failure while maintaining control of the vehicle.

MVC Work-relatedness

Any crash involving a vehicle while performing company business.

Note: 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

Note that Contractor Motor Vehicle Crash includes any vehicle operated by a contractor or subcontractor while performing work on behalf of the company, where injuries, kilometres driven or hours worked should be recorded (e.g., delivery/courier services are excluded).

Crash

A crash is work-related motor vehicle incident e.g., collision or other event, which resulted in vehicle damage, or vehicle rollover, or personal injury, or fatality.

Motor Vehicle

Any mechanically powered vehicle used to transport people or property, including any load on or attached to the vehicle (e.g., a trailer). This includes motorcycles. Specifically excluded from the definition of motor vehicle are vehicles operated on fixed rails and onsite vehicles that are not capable of more than 10 mph (16 kph).

Rollover

Any crash (at any speed) where the vehicle has flipped onto any of its sides (90 degrees), top and/or rolled 360 degrees via any axis.

Note: If a vehicle lands on its side but has flipped less than 90 degrees due to vehicle design, load, or elevation of the road (or side of the road), it is still considered a rollover. If a vehicle tips less than 90 degrees but then recovers (all wheels back on the ground) or if a vehicle flat spin around the vertical axis (e.g., a quick turning movement round and round), it is not considered to be a rollover.

For the purposes of MVC reporting, the term Vehicle includes the trailer. If, for example, the cab/tractor stays upright while the trailer rolls over, this is considered a rollover.

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-company event, e.g., local conference or other similar function.

Commute 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 on company business.

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

A vehicle crash is considered to have occurred during commute travel if it meets the definition above, regardless whether the event occurs while driving a company or personal vehicle or whether the employee or contract employee is being compensated during this time. Where appropriate, any vehicle crash occurring during Commute travel may be considered as asset or property damage 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 company business travel.

Home-away-from-home

When travelling, 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.

Company mandated accommodation is not considered to be home away from home. This is considered to be a field operations location therefore travel to and from such locations is considered to be company business travel and not a commute.

3.15 Process safety event definitions

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 5, 5A and 5B for detail of PSE data to be recorded).

As specified within IOGP Report 456 - *Process safety – recommended practice on key performance indicators*, <http://www.iogp.org/bookstore/product/process-safety-recommended-practice-on-key-performance-indicators>, a **process safety event** is a Loss of Primary Containment (LOPC) from a process, and is reportable as Tier 1 or Tier 2 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 material release or pressure relief device discharge occurs which exceeded defined thresholds (even if none of the consequences above occurred)

IOGP Report 456 provides consequence and threshold definitions consistent with API Recommended Practice No.754 (2nd edition). 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.

Upstream PSE examples are provided in Report 456 (Part F).

The definitions and thresholds are also provided within this guide as part of Report 5.

Work-relatedness is not generally a factor when determining whether a process safety event is recordable based on a fatality or injury consequence.

Officially Declared Community Evacuation or Community Shelter-in-Place

- Officially Declared – A declaration by a recognized community official (e.g., fire, police, civil defence, emergency management) or delegate (e.g., Company official) authorized to order the community action (e.g., shelter-in-place, evacuation).
- 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.
- For offshore installations, community evacuation or community shelter in place excludes precautionary muster on the installation.

Note: Changes to definitions and examples published in Report 456, 2nd revision (2023), should be applied for 2023 data onwards (not for 2022 data).

Report 5A

Process safety events due to sabotage or wilful damage are reported separately in Report 5A as the control required for sabotage and wilful damage events are generally more related to security rather than process safety.

Report 5B

Tier 1 process safety events are reported on Report 5B to provide similar information as is required for fatal incidents and high potential events to further enable learning from these events.

The following lists should be used for the reporting of Tier 1 PSE descriptions. See *Process safety – recommended practice on key performance indicators*, <http://www.iogp.org/bookstore/product/process-safety-recommended-practice-on-key-performance-indicators>, and Appendix 2 – Glossary of general terms for definitions.

Incident category

- An employee, contractor or subcontractor 'days away from work' injury and/or fatality
- A hospital admission and/or fatality of a third party
- An officially declared community evacuation or community shelter-in-place
- Fire/Explosion damage >\$100,000 direct cost to the company
- A release above threshold quantity in any 1 hour period
- PRD release to atmosphere above threshold in any 1 hour period and results in:
 - liquid carryover or
 - discharge to a potentially unsafe location or
 - onsite shelter in place or
 - public protective measure (e.g., road closure)

Note: Non-toxic and non-flammable materials (e.g., steam, hot water, nitrogen, CO₂ and compressed air) have no threshold quantities and are only included in this definition as a result of their potential to result in one of the other consequences.

Type of activity

- Drilling
- Completions
- Workover/Well Services
- Production Operations
- Pipeline Operations
- Unspecified – Other

Mode of operation

Production

- Start-up
- Planned shutdown
- Emergency shutdown
- Normal
- Upset
- Turnaround
- Routine maintenance
- Temporary
- Other

Drilling and Completion Operations

- Drilling
- Completions
- Well intervention/well servicing
- Well flow testing
- Abandonment
- Recompletion

Point of release

Refer to Appendix 8 for definitions.

Piping in process and utility systems (excluding subsea)

- Piping joint
- Piping material/tubing
- Valve (body, stem, plugs)
- Choke
- Instrumentation and small bore tubing
- Sight glass
- Platform/Well Pad Flowline
- Flexible hose/piping

Equipment

- Pressure vessel
- Pig launcher/receiver
- Pump
- Compressor/blower/fan
- Meter
- Filter
- Fired heater/boiler/furnace
- Power generation unit
- Reactor
- Heat exchanger

Tanks and sumps/pits

- Atmospheric tank
- Atmospheric tank overflow
- Pressurized storage vessel
- Sump/pit overflow

Relief, vent and discharge systems

- Relief valve (body, plugs)
- Flare and atmospheric vent systems (intended discharge location)
- Flare and atmospheric vent systems (not at intended discharge location)
- Drain
- Discharge to sea

Breaking containment locations

- Breaking containment location
- Loading/unloading coupling
- Sample system
- Piping/valve (inadvertently left) open to atmosphere

Wells, drilling and intervention

- Well
- Subsea well
- Well intervention equipment
- Mud circuit/tanks

Subsea

- Subsea pipeline/flowline
- Subsea equipment

Onshore pipelines/flowlines

- Onshore pipeline
- Onshore flowline

Unknown/insufficient information

- Unknown/insufficient information

Barrier failures

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. Refer to IOGP Report 544 <https://www.iogp.org/bookstore/product/standardization-of-barrier-definitions>.

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 – including deluge and fire water systems
6. Shutdown Systems – including operational well isolation and drilling well control equipment
7. Emergency Response Equipment and Systems
8. Life-Saving Equipment – including evacuation systems

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 <http://www.iogp.org/bookstore/product/operating-management-system-framework-for-controlling-risk-and-delivering-high-performance-in-the-oil-and-gas-industry>.

Process safety fundamental

One process safety fundamental is assigned to each Tier 1 PSE narrative and for each high potential event narrative where the event was also PSE or PSE-related. Refer to IOGP Report 638 – *Process Safety Fundamentals*, <https://www.iogp.org/bookstore/product/process-safety-fundamentals>, for more details.

- We respect hazards
- We apply procedures
- We sustain barriers
- We stay within operating limits
- We maintain safe isolation
- We walk the line
- We control ignition sources
- We recognize change
- We stop if the unexpected occurs
- We watch for weak signals

3.16 Well Control Incident reporting definitions

A well control incident (WCI) is a loss, failure or challenge to the capacity of a barrier element or one or more of the barrier systems within a well.

A WCI can potentially escalate to an uncontrolled release of formation fluid into the environment:

- at surface into the atmosphere
- at the mudline for subsea wells
- into another downhole formation resulting in an underground blowout, which can escalate into a surface or subsea release if fluid pressure allows it to travel to the surface or mudline via fractured formations

IOGP has defined the following classification system for WCI reporting: WCIs of Levels 1, 2 and 3 are reportable to IOGP.

The scope of these definitions is drilling, completion, and intervention operations and excludes injection and production operations.

WCI Level 1 – Loss of Well Control

Uncontrolled flow of formation or other fluids resulting in:

- a. Seabed or surface release.
- b. Underground communication to another formation or well.

Includes shallow water flows that result in damage or loss of facilities or equipment.

Excludes planned shallow gas mitigation operations.

WCI Level 2 – Multiple Barrier Systems Failures and Challenges

One barrier system within the well design failed and other barrier system(s) either failed or were challenged beyond design capacity resulting in an influx without uncontrolled flow.

WCI Level 3 – Challenges to Safety Systems

A single barrier system within the well design failed resulting in an influx while other barrier systems performed as designed without uncontrolled flow.

Incidents that fit the criteria for both PSE and WCI should be reported in both forms.

Note: Changes to definitions and examples published in Report 456, 2nd revision (2023), should be applied for 2023 data onwards (not for 2022 data).

Type of activity

WCI are categorized by type of activity as follows:

- Drilling
- Completion
- Well intervention/Well servicing
- Well flow testing
- Abandonment
- Recompletion

Barrier failures

Hardware Barrier failures

1. Detection Systems
2. Hydrostatic barrier
3. Inner Drill string barrier
4. BOP system
5. Station keeping system
6. Casing
7. Completion element
8. Cement
9. Wellhead – Xmas tree
10. Well collision

Human Barrier failures

1. Operating in accordance with programs or procedures
2. Monitoring of well: well returns, fill up when tripping, well surveillance during other works

3. Acceptance of handover, pre-tour check lists
4. Drill crew training and drills
5. Calculation of hydrostatic barrier fluid weight
6. Wrong usage of equipment
7. Inflow testing of barriers
8. Response to alarms, interpretation of P readings and trends
9. Other Drilling practices

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 <http://www.iogp.org/bookstore/product/operating-management-system-framework-for-controlling-risk-and-delivering-high-performance-in-the-oil-and-gas-industry>.

WCI Categorization Guide

The following terms are used in the categorization guide below.	
Failure - barrier fails to function as designed	
Challenge - barrier is exposed to conditions beyond design limits but does not fail. Design limits include pressure, volume, temperature, H ₂ S, access to materials or equipment, personal and team competency, access to procedures, access to expertise, loss of utilities or auxiliary equipment, operating issues (lost circulation, stuck pipe, plugged flow path, hydrates)	
Loss of Well Control – uncontrolled flow of formation or other fluids resulting in:	Level 1
<ul style="list-style-type: none"> • Seabed/surface release. • Underground communication to another formation or well. • Includes shallow water flows that result in damage or loss of facilities/equipment. • Excludes planned shallow gas mitigation operations. 	
Multiple Barrier Systems Failures and Challenges	Level 2
One barrier system within the well design failed and other barrier system(s) either failed or were challenged beyond design capacity resulting in an influx without uncontrolled flow.	
Challenges to Safety Systems	Level 3
A single barrier system within the well design failed resulting in an influx while other barrier systems performed as designed without uncontrolled flow. (This is only one of many Level 3 Indicators).	
Operating Discipline and Safety Management System Performance Indicators	Level 4
Represents performance of the individual barriers or its components, within a facility's management system, and operating discipline.	

Well Control Incident Scenarios	Level Classification
Failure of hydrostatic pressure barrier causing an influx followed by a failure of the pressure containment system and/or well control system resulting in uncontrolled flow of formation or other fluids.	1
Failure of pressure containment system resulting in an uncontrolled flow of formation or other fluids.	1
Failure of well control system resulting in an uncontrolled flow of formation or other fluids.	1
Shallow water flow resulting in damage or loss of facilities and/or equipment.	1
All well control incidents where uncontrolled flow of formation or other fluids are directed through a diverter without well control system closure.	1
Unplanned flow of formation or other fluids occurs across formations or wells.	1
Any well control incident that results in formation or other fluids that broach the mud line.	1
Well collision or intrusion with another well as a result of well construction activities (drilling/fracturing) and results in uncontrolled flow of formation or other fluids.	1
Failure of rig surface formation and other fluid handling equipment resulting in a release of formation fluids meeting Tier 1 Process Safety Event threshold.	1
Failure of hydrostatic pressure barrier causing an influx followed by a failure of or challenge to the pressure containment system component and/or well control system component but does not result in uncontrolled flow of formation or other fluids.	2
Failure of pressure containment system and a failure of or challenge to the hydrostatic pressure barrier and/or well control system component but does not result in an uncontrolled flow of formation or other fluids.	2
Failure of well control system and a failure of or challenge to the hydrostatic pressure barrier and/or pressure containment system that does not result in an uncontrolled flow of formation or other fluids.	2
All well control incidents where formation or other fluids are directed through a diverter where well control system is closed and well is isolated.	2
Well collision or interference as a result of well construction activities (drilling/fracturing) results in influx that does not result in uncontrolled flow of formation or other fluids.	2
Failure of rig surface formation and other fluid handling equipment resulting in a release of formation fluids meeting Tier 2 Process Safety Event thresholds.	2
Failure of hydrostatic pressure barrier causing an influx with other barriers functioning within design limitations with no uncontrolled flow of formation or other fluids.	3
Failure of pressure containment system component with other barriers functioning as designed with no uncontrolled flow of formation or other fluids.	3
Failure of well control system component with other barriers functioning as designed with no uncontrolled flow of formation or other fluids.	3
Shallow water flow which does not result in damage or loss of facilities and/or equipment.	3
Deterioration of in-service pressure containment system, well control system or surface fluid handling system below accepted requirements that could compromise integrity.	3
Failure of a test or inspection below a defined acceptable performance standard of a pressure containment system component, well control system component or surface formation and other fluid handling system component.	4

Well Control Incident Scenarios	Level Classification
Finding that hydrostatic pressure, pressure containment system, well control system or surface fluid handling system does not meet performance standards or operational requirements while in service.	4
Well trajectory minimum allowable separation distance breached but does not result in a collision or interference with another well.	4
Failure of rig surface fluid handling equipment resulting in a release of formation fluids not meeting Tier 1 or Tier 2 Process Safety Event thresholds.	4
Anomalous well conditions not reported by operations to the responsible person.	4
Failure to conduct required maintenance, testing and inspection on pressure containment system, well control system or surface formation and other fluid handling system.	4
Operating outside of safe operating limits.	4
Absence of certified well control expertise.	4
Inability to achieve zonal isolation with cement (ultimate failure, not first attempt).	4

3.17 Fatality & Permanent Impairment

IOPG Fatality and Permanent Impairment (FPI) injury definitions are designed for use in energy industry reporting. They are deliberately concise and concept based. Examples and an associated Frequently Asked Questions resource will help support specific case decision making. The concepts are provided in plain language to facilitate reliable interpretation and application across a wide scope of potential scenarios, by industry personnel without health qualifications. The permanent impairment injury definition should be determinable from a basic assessment of known injuries assisted by injury reports, medical certificates and/or worker self-reports of current status.

These definitions are aligned to recognized international systems of classification including:

- American Medical Association Guides: The Sixth Edition
- World Health Organization (WHO) International Classification of Functioning, Disability, and Health (ICF)

Disclaimer

FPI criteria are not legally binding injury severity classifications and are not intended for use in relation to compensation payment calculations, legal or regulatory purposes. Quantification of impairment level for compensatory purposes should be undertaken by a certified assessor against local regulatory requirements.

Definitions

3.17.1 Fatality

A death as a result of a work-related incident. ‘Delayed’ deaths that occur within 180 days post incident are to be included if the death was a direct result of the incident (refer to Section 1.1 for work relatedness, and 1.2 for the definition and further guidance on fatality, ‘delayed’ deaths, and injury).

3.17.2 Permanent Impairment (PI)

A direct work-related injury outcome that prevents a return to the person's previous (pre-incident) whole person function within 180 days as a result of an acute, single incident resulting in any of the following:

- Permanent loss of body parts
- Permanent reduction of organ's physiological function
- Permanent reduction in skin and musculoskeletal function
- Permanent reduction in psychological, social, or cognitive function

Note: "Whole person function" relates to a person's biological/physical status as well as their emotional and social functioning. For more information refer to the American Medical Association's Guides to the evaluation of permanent impairment, sixth edition.

The definition is not inherently time bound but for complex injuries with potential recovery permanent impairment definitions are not advised to be finalised before 180 days post incident.

A state of Maximum Medical Improvement (MMI) is achieved when a person has received all available medical intervention and rehabilitation options with no further status improvement deemed likely. On a case-by-case basis, if the specific information on the recovery prognosis is not available, a medical professional opinion should be used for determination of permanent impairment.

Beyond 180 days any further medical care delivered is deemed supportive and/or symptoms-based management rather than curative.

Impairment is defined both against ability to return to the previous work role and ability to perform the activities of daily living (ADL).

3.17.3 Injury work relatedness

An injury case is deemed work related when an acute/single incident (also referred to as a work-related injury resulted from instantaneous event or exposure, as per OSHA definition) in the work environment is the discernible cause of the FPI. Work relatedness of a secondary health outcome that may create permanent impairment requires a clear injury mechanism that explains the secondary outcome. In uncertain cases this will require expert medical opinion to confirm or refute the work incident as the root causative factor. For additional information see the IOGP Safety Performance User Guide. See classification examples.

3.17.4 FPI criteria

Within the FPI reporting methodology the following definitions are used:

- Actual FPI: An incident that results in a fatality or permanent impairment
- Potential FPI: An incident that results in an injury (first aid and recordable) that could have realistically resulted in a fatality or permanent impairment
- Near Miss FPI: An event that could have realistically resulted in a fatality or permanent impairment where there was no actual injury.

Note: IOGP defines a High Potential Event as any incident or near miss that could have realistically resulted in one or more fatalities. An actual, potential or near miss FPI may or may not be a high potential event.

3.17.5 Permanent Impairment criteria

The Permanent Impairment metric is met by any of the below criteria singularly or in combination. Impairment may occur to physical, psychological or social function if it related to an acute/single incident.

3.17.5.1 Permanent loss of body parts

Permanent loss of body parts as a result of an acute/single incident due to mechanical trauma, thermal trauma, radioactivity, vibration, chemical exposure or other. Examples:

- Amputations with loss of bone inclusive of one or more joints (not able to be reattached).
- Loss of eye(s)
- Loss of internal organs e.g. kidney, spleen (may also meet criteria 3.4.2)
- Loss of facial structures, example: nose, ears, leading to disfigurement.
- Loss of genitalia or other sexual organs

Successful use of limb prosthesis to improve function does not negate a permanent impairment definition.

On a case-by-case basis, when diagnoses of permanent impairment is unclear, a medical professional opinion should be used to determine permanent impairment.

3.17.5.2 Permanent reduction of organ function

Permanent reduction in an organ's physiological function as a result of an acute/single incident due to a mechanical trauma, thermal trauma, radioactivity, vibration, chemical exposure or other. Examples:

- Eye injury with loss of vision
- Bowel injury requiring permanent stoma
- Spinal injury requiring use of wheelchair
- Brain injury causing epilepsy (recurrent seizures)
- Heart injury with impaired exertion tolerance / measurable loss of function.
- Lung injury, including inhalation, with impaired exertion tolerance/measurable loss of function. Loss of smell that creates a safety concern or significant personal impact.
- Loss of hearing or persistent tinnitus (ear ringing) post injury after exposure to a blast.
- Post injury complex pain disorders with uncontrolled pain and/or disrupted nerve and musculoskeletal function
- Genital or other sexual organ injury leading to loss of function

On a case-by-case basis, when diagnoses of permanent impairment is unclear, a medical professional opinion should be used to determine permanent impairment.

3.17.5.3 Permanent reduction in skin and/or musculoskeletal function

Permanent reduction in skin and/or musculoskeletal function as a result of an acute/single incident due to a mechanical trauma, thermal trauma, radioactivity, vibration, chemical exposure or other. Examples:

- Burns: deep burns (2nd or 3rd degree) with scarring or skin grafts that impair body movement or other function, or cause disfigurement or change to physical appearance. This includes a reduction of skin integrity, hypersensitivity to touch or skin fragility leading to friction ulceration.

- Tendon/ligament tear with ongoing pain and/or inadequate joint range of movement for normal work or general function such as cannot reach overhead, cannot squat or kneel.
- Traumatic soft tissue injury to shoulder/knee/elbow with ongoing pain and/or inadequate joint range of movement.
- Fracture with ongoing impairment to mobility.
- Amputation with successful reattachment but reduced function.

On a case-by-case basis, when diagnoses of permanent impairment is unclear, a medical professional opinion should be used to determine permanent impairment.

3.17.5.4 Permanent reduction in psychological, social or cognitive function

Permanent reduction in psychological, social or cognitive function as a result of an acute/single incident with psychological trauma including an inability to self-care and/or an inability to maintain previous work, social and community relationships post incident. Examples:

- Brain injury with ongoing impact to emotional regulation, speech, memory or other cognitive dysfunction.
- Post injury psychiatric disorders including Post Traumatic Stress Disorder (PTSD) with inability to return to previous work role and/or schedule.

On a case-by-case basis, when diagnoses of permanent impairment is unclear, a medical professional opinion should be used to determine permanent impairment.

See Appendix 9 for classification examples and FAQ. The most up-to-date FAQ can be found at <https://www.iogp.org/fpi>.

3.18 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
- during incident investigations and classification for reporting in accordance with this User Guide

Scope

In Scope

Company employees

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

Contract employees

- Contract employees as per mode 1 and 2 as defined in IOGP Report 423 - *HSE Management – Guidelines for working together in a contract environment*, <http://www.iogp.org/bookstore/product/hse-management-guidelines-for-working-together-in-a-contract-environment/>
- 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 the Company. These contract employees are in scope both on and off premises as long as they are on company business.

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
 - travelling directly between Company premises
 - travelling while performing work on behalf of the Company

Business Entities

- Company-owned, company-operated service providers. 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*, <http://www.iogp.org/bookstore/product/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 (for example natural disaster such as earthquake/hurricane).
- 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 mobilise 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.

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 (including the application of its own management system) and is for the benefit of one or more third parties, (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 15 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 (including hospital) 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, broken teeth, 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 (acute exposure is considered an injury whereas chronic exposure is considered an occupational illness and outside of IOGP's scope of reporting)
- 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 15 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
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 massage
14. Drinking fluids for relief of heat stress
15. Using adrenaline auto-injectors if pre-prescribed for the patient

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 or labelled 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 treatment of 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 advice from a company physician or medical consultant and document your reasoning for classification.

APPENDIX 2: Glossary of general terms

Amputation

Robina and reference to FPI section and website link for examples

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.

Aviation accident (as an incident/event category)

An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked or, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which a person is fatally or seriously injured as a result of:

1. being in the aircraft
2. direct contact with any part of the aircraft, including parts which have become detached from the aircraft
3. direct exposure to jet blast or rotor downwash, **except** when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew

Barrier

A risk control that seeks to prevent unintended events from occurring, or prevent escalation of events into incidents with harmful consequences.

Barrier/safety system challenge (in the context of Well Control Incidents)

A barrier is exposed to conditions beyond design limits but does not fail. Design limits include pressure, volume, temperature, H₂S, access to materials or equipment, personal and team competency, access to procedures, access to expertise, loss of utilities or auxiliary equipment, operating issues (lost circulation, stuck pipe, plugged flow path, hydrates).

Barrier/safety system failure (in the context of Well Control Incidents)

A barrier fails to function as designed.

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 (including decompression), subsea, ROV (as a type of activity)

Operations involving diving and any associated decompression activities (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 operations (as a type of activity)

Activities involving the development, maintenance work or remedial treatments related to an oil or gas well. Well operations (Reference IOGP Report 456 2nd revision) include all activities related to well construction (e.g., exploration, appraisal and development drilling and completions), well testing, surveillance,

interventions, and workovers (e.g. wireline, stimulation, coiled tubing), and abandonment (including downhole plugging and temporary abandonment).

Dropped objects (as an incident/event category)

Any item with the potential to cause injury, death, or equipment/environmental damage, that falls down or over from its previous position. Specifically excludes falls from height (people).

Source: *Dropped Object Prevention Scheme, Recommended Practice*

<http://www.dropsonline.org/assets/documents/DROPS-Recommended-Practice-2017.pdf>

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.

Excavation, trenching, ground disturbance (as a type of activity)

Work that involves a cut, cavity, trench or depression in the earth's surface formed by earth removal.

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, Fire 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, Radiation (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 (including animal attacks/bites, insect stings, effects of poisonous plants etc.), 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

A high potential event is an event which could have, under slightly different circumstances, realistically resulted in a fatal incident.

Hours Worked

For onshore operations, the actual 'hours worked', including overtime hours, are recorded. 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.

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 Rate (LTIR)

The number of lost time injuries (fatalities + lost work day cases) per 1,000,000 (1 million) 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 water, nitrogen, compressed CO₂ or compressed air). [From API RP 754 (2nd edition)].

For drilling operations, any unplanned or uncontrolled release to the surface (seabed or ground level) should be included. LOPC is a type of event. An unplanned or uncontrolled release is an LOPC irrespective of whether the material is released into the environment, or into secondary containment, or into other primary containment not intended to contain the material released under normal operating conditions).

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 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.

Motor Vehicle

Any mechanically powered vehicle used to transport people or property, including any load on or attached to the vehicle (e.g., a trailer). This includes motorcycles. Specifically excluded from the definition of motor vehicle are vehicles operated on fixed rails and onsite vehicles that are not capable of more than 10 mph (16 kph). Vehicles are split into four sub-categories:

- Heavy Vehicle (HV)
- Light Vehicle (LV)
- Mobile equipment
- Motorcycles

Refer to IOGP Report 365 - *Land Transportation Recommended Practice*,
<http://www.iogp.org/bookstore/product/land-transportation-safety-recommended-practice/>.

Motor Vehicle Crash (MVC)

A work-related motor vehicle incident (collision or other event), which resulted in vehicle damage, or vehicle rollover, or personal injury, or fatality. Note: Contractor Motor Vehicle Crash includes any vehicle operated by a contractor or subcontractor while performing work on behalf of the company, where injuries, kilometres driven, or hours worked should be recorded (e.g., delivery/courier services are excluded).

Refer to IOGP Report 365 - *Land Transportation Recommended Practice*,
<http://www.iogp.org/bookstore/product/land-transportation-safety-recommended-practice/>.

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 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, 2019, the second death from it might occur in January 2020. **All fatalities from an incident are included in the report for the year of that incident.** In the above case, the fatality in 2020 is reported with the 2019 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.

Permanent Disfigurement

See FAQ #22 at <https://iogp.org/fpi>.

Planned shutdown (as a PSE mode of operation)

A planned shutdown is the activity of shutting down a process unit normally for planned maintenance or a turnaround.

Pressure Release (as an incident/event category)

Release of gas, liquid or object under pressure 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

Facilities used in drilling and production operations in the oil and gas industry. This includes rigs and process equipment (e.g., vessels, piping, valves, boilers, generators, pumps, compressors, exchangers, refrigeration systems) and includes storage tanks, ancillary support areas (e.g., boiler houses and waste water treatment plants), on-site remediation facilities, and distribution piping under control of the Company.

Process safety *[From API RP 754 (2nd edition)]*

A disciplined framework for managing the integrity of hazardous operating systems and processes by applying good design principles, engineering, and operating and maintenance practices. It deals with the prevention and control of events with the potential to release hazardous materials or energy. Such releases can result in toxic effects, fire or explosion, and could ultimately result in serious injuries, property damage, lost production and environmental impact.

Refer to IOGP Report 456 - *Process safety – recommended practice on key performance indicators*, <http://www.iogp.org/bookstore/product/process-safety-recommended-practice-on-key-performance-indicators/>

Process Safety Event (PSE) *[From API RP 754 (2nd edition)]*

An unplanned or uncontrolled release of any material including non-toxic and non-flammable materials (e.g., steam, hot water, nitrogen, compressed CO₂ or compressed air) from a process, or an undesired event or condition, that under slightly different circumstances, could have resulted in a release of material.

Refer to IOGP Report 456 - *Process safety – recommended practice on key performance indicators*, <http://www.iogp.org/bookstore/product/process-safety-recommended-practice-on-key-performance-indicators/>

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 or incident, including an LOPC or an occupational injury or illness, or other outcome which has been determined to meet or exceed definitions, criteria or thresholds for inclusion and classification in data provided to IOGP (or other agencies or stakeholders). The broader term 'reportable' is often used to indicate the wider range of KPI data collected within the Company for local or corporate use, of which only part will also be recordable.

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). This is a recordable incident.

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.

Sabotage

Deliberately destroy, damage, or obstruct (something).

Secondary containment *[From API RP 754 (2nd edition)]*

An impermeable physical barrier specifically designed to mitigate the impact of materials that have breached primary containment (i.e., an LOPC). Secondary containment systems include, but are not limited to: tank dykes, curbing around process equipment, drainage collection systems, the outer wall of open top double walled tanks, etc.

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.

Shelter-in-Place *[From API RP 754 (2nd edition)]*

The use of a structure and its indoor atmosphere to temporarily separate individuals from a potentially hazardous outdoor atmosphere.

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 *[From API RP 754 (2nd edition)]*

Any individual other than an employee, contractor or subcontractor of the Company, e.g., visitors, non-contracted delivery drivers, residents.

Threshold: Material release threshold quantity

The weight of gas, liquid, or solid material released from an LOPC which, if exceeded, results in the event being recordable as either a Tier 1 or 2 PSE. The threshold quantities are described more fully in API RP 754 (2nd edition) and follow the UNDG classification system.

Total recordable injuries

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

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases) per million hours worked.

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 motorised 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), such as supply vessels or crew boats.

Turnaround (as a PSE mode of operation)

A planned, periodic shut down (total or partial) of a process unit or plant to perform maintenance, overhaul and repair operations and to inspect, test and replace process materials and equipment. This is after a planned shutdown.

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.

Wilful damage

Wilful or malicious damage or destruction of the property of another.

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

Deviation 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 individuals know they are not authorized for.

Deviation 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, 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, lightning, 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 recognize 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

1. Work-relatedness/Home Based Workers: If an employee voluntarily takes work home and is injured while working at home, is the case recordable?

No. Injuries occurring in the home environment are only considered work related if the employee is being paid or compensated for working at home and the injury is directly related to the performance of the work rather than to the general home environment.

Refer to: OSHA Recordkeeping Policies and Procedures Manual, question 5-7:

<https://www.osha.gov/enforcement/directives/cpl-02-00-135>

2. Work-relatedness/Home Based Workers: How do I decide if a case is work-related when the employee is working at home?

Injuries that occur while an employee is working at home, including work in a home office, will be considered work-related if the injury occurs while the employee is performing work for pay or compensation in the home, and the injury is directly related to the performance of work rather than to the general home environment or setting.

For example:

- If an employee drops a pile of work documents and injures his or her foot, the case is considered work-related
- If an employer's fingernail is punctured by a needle from a sewing machine used to perform garment work at home, becomes infected and requires medical treatment, the injury is considered work-related
- If an employee is injured because he or she trips on the family dog while rushing to answer a work phone call, the case is not considered work-related
- If an employee working at home is electrocuted because of faulty home wiring, the injury is not considered work-related

Refer to OSHA Standard 1904.5(b)(7):

<https://www.osha.gov/laws-regs/regulations/standardnumber/1904/1904.5>

Note: IOGP does not collect information on illnesses

3. 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.

4. 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.

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

OSHA only requires the reporting of Company Employees (as defined in Appendix 2). The main difference between IOGP and OSHA reporting requirements relates to the need for E&P organizations to report incidents associated with company employees, contractor and subcontractor personnel to IOGP. Additionally, IOGP encourages the reporting of 3rd party fatalities.

With respect to the classification of injuries, IOGP and OSHA are aligned.

IOGP LTIR and TRIR normalized results are presented per million work hours and FAR is normalized per 100 million hours. In the OSHA reports the incidence rates represent the number of injuries and illnesses per 100 full-time workers (200,000 hours) and are calculated as:

$(N/H) \times 200,000$, where:

N = number of injuries and illnesses

H = total hours worked by all employees during the calendar year

IOGP only collects injuries – OSHA collects both injuries and occupational illnesses.

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.

APPENDIX 5: Report forms – guidance only

REPORT 1 - OCCUPATIONAL INJURIES - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Total number of fatal incidents involving employee, contractor or 3rd party fatalities:

(This should tally with the number of report 2 worksheets.)

COMPANY EMPLOYEES		The following data are collected (enter yes/no in appropriate box):			
		Yes	No		
Lost Workday Case (LWDC) Days		<input type="text"/>	<input type="text"/>	RWDC Days	<input type="text"/>
Restricted Workday Cases (RWDCs)		<input type="text"/>	<input type="text"/>	Medical Treatment Cases	<input type="text"/>

A		ONSHORE							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days	
Exploration									
Drilling									
Production									
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		OFFSHORE							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days	
Exploration									
Drilling									
Production									
Construction									
Unspecified									
Total	0	0	0	0	0	0	0	0	

Note: 'Hours Worked' to be based on 12 hours day/shift. Thus, depending upon on/off ratio, hours worked vary between 1600 and 2300 per man year.

CONTRACTOR EMPLOYEES		The following data are collected (enter yes/no in appropriate box):			
		Yes	No		
Lost Workday Case (LWDC) Days		<input type="text"/>	<input type="text"/>	RWDC Days	<input type="text"/>
Restricted Workday Cases (RWDCs)		<input type="text"/>	<input type="text"/>	Medical Treatment Cases	<input type="text"/>

C		ONSHORE							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days	
Exploration									
Drilling									
Production									
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.

D		OFFSHORE							
FUNCTION	Employees	Hours (thousands)	Employee Fatalities	MTC	LWDC	LWDC Days	RWDC	RWDC Days	
Exploration									
Drilling									
Production									
Construction									
Unspecified									
Total	0	0	0	0	0	0	0	0	

Note: 'Hours Worked' to be based on 12 hours day/shift. Thus, depending upon on/off ratio, hours worked vary between 1600 and 2300 per man year.

E		
FUNCTION	Fatalities	
	Onshore	Offshore
Exploration		
Production		
Drilling		
Construction		
Unspecified		
Total	0	0

IOGP Safety Data Report

REPORT 1LWDC - LOST WORKDAY CASES - 2022 DATA

Company	0
Contact name/title	0
Year	2022

Please complete one row for each LWDC.

Enter a value in every cell for each row you populate.

Copy/paste to add new rows to the end of the table where necessary

Option values can be found in the Lists worksheet

Id	Your unique id	Country	Company/ contractor	Onshore/ offshore	Number of LWDC days	Number of RWDC days	Body part	Nature of injury	Cause of injury	Activity	Life saving rule	Main causal factor
1												
2												
3												
4												
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IOGP Safety Data Report

REPORT 2 - FATAL INCIDENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Incident details

Was this incident also classified as a Tier 1 Asset Integrity / Process Safety Event? (see Report 6)

Enter 'yes' or 'no'

Was this incident also classified as a Motor Vehicle Crash? (see Report 5)

Enter 'yes' or 'no'

Date of incident (day/month/year):

Time incident occurred:

Place of incident (ring one)

- ONSHORE
- OFFSHORE

Function (ring one):

- EXPLORATION
- DRILLING
- PRODUCTION
- CONSTRUCTION
- UNSPECIFIED

Incident description:

What went wrong? (main root causes):

Lessons learnt and recommendations to prevent recurrence:

A		COMPANY EMPLOYEES					
FUNCTION (VICTIM)	No. of Fatalities from Incident	Cause of injury*	Nature of injury*	Body part injured*	Age	Occupation*	Medical cause of death
Exploration							
Production							
Drilling							
Construction							
Unspecified							

B		CONTRACTOR EMPLOYEES					
FUNCTION (VICTIM)	No. of Fatalities from Incident	Cause of injury*	Nature of injury*	Body part injured*	Age	Occupation*	Medical cause of death
Exploration							
Production							
Drilling							
Construction							
Unspecified							

*See Option Lists tab

C		THIRD PARTIES	
No. of Fatalities from Incident			

Type of activity:
(ring one - required)

1. Construction, commissioning, decommissioning
2. Diving (incl. decompression), subsea, ROV
3. Drilling, workover, well operations
4. Excavation, trenching, ground disturbance
5. Lifting, crane, rigging, deck operations
6. Maintenance, inspection, testing
7. Office, warehouse, accommodation, catering

8. Production operations
9. Seismic / survey
10. Transport - Air
11. Transport - Land
12. Transport - Water,
13. Other

Primary Life-Saving Rule
(ring one)

The applicable rule is the rule that failed or was violated by the victim or other individual See IOGP report 459

1. Bypassing safety controls
2. Confined space
3. Diving
4. Energy isolation
5. Hot work

6. Line of fire
7. Safe mechanical lifting
8. Work authorisation
9. Work at height
10. Other (give details below)

Other applicable Life-Saving Rules
(ring as many as apply)

The applicable rule is the rule that failed or was violated by the victim or other individual See IOGP report 459

1. Bypassing safety controls
2. Confined space
3. Diving
4. Energy isolation
5. Hot work

6. Line of fire
7. Safe mechanical lifting
8. Work authorisation
9. Work at height
10. Other (give details below)

Causal factors

(ring as many as apply)
See User Guide Appendix 3A

PEOPLE (ACTS)

- Following Procedures:
1. Deviation intentional (by individual or group)
 2. Deviation unintentional (by individual or group)
 3. Improper position (in the line of fire)
 4. Overexertion or improper position/posture for task
 5. Work or motion at improper speed
 6. Improper lifting or loading
- Use of Tools, Equipment, Materials and Products:
7. Improper use/position of tools/equipment/materials/products
 8. Servicing of energised equipment/inadequate energy isolation
- Use of Protective Methods:
9. Failure to warn of hazard
 10. Inadequate use of safety systems
 11. Personal Protective Equipment not used or used improperly
 12. Equipment or materials not secured
 13. Disabled or remove guards, warning systems or safety devices
- Inattention/Lack of Awareness:
14. Improper decision making or lack of judgment
 15. Lack of attention/distracted by other concerns/stress
 16. Acts of violence
 17. Use of drugs or alcohol
 18. Fatigue

PROCESS (CONDITIONS)

- Protective Systems:
19. Inadequate/defective guards or protective barriers
 20. Inadequate/defective Personal Protective Equipment
 21. Inadequate/defective warning systems/safety devices
 22. Inadequate security provisions or systems
- Tools, Equipment, Materials, Products:
23. Inadequate design/specification or management of change
 24. Inadequate/defective tools/equipment/materials/ products
 25. Inadequate maintenance/inspection/testing
- Work Place Hazards:
26. Congestion, clutter or restricted motion
 27. Inadequate surfaces, floors, walkways or roads
 28. Hazardous atmosphere (explosive/toxic/asphyxiant)
 29. Storms or acts of nature
- Organisational:
30. Inadequate training/competence
 31. Inadequate work standards/procedures
 32. Inadequate hazard identification or risk assessment
 33. Inadequate communication
 34. Inadequate supervision
 35. Poor leadership/organisational culture
 36. Failure to report/learn from incidents

IOGP Safety Data Report

REPORT 3 - HIGH POTENTIAL EVENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Please provide maximum of 5 high potential events with the most learning.

Event details

Was this incident also classified as an Asset Integrity / Process Safety Event? (see Report 6)

Was this incident also classified as a Motor Vehicle Crash? (see Report 5)

Date of event (day/month/year):

Place of event (ring one):
 ONSHORE
 OFFSHORE

Function (ring one):
 EXPLORATION
 DRILLING
 PRODUCTION
 CONSTRUCTION
 UNSPECIFIED

Event description:

What went wrong? (main root causes):

Lessons learnt and recommendations to prevent recurrence:

Event cause (ring one - required)

<ul style="list-style-type: none"> 1. Aviation accident 2. Assault or violent act 3. Caught in, under or between (excl. dropped objects) 4. Confined space 5. Cut, puncture, scrape 6. Dropped objects 7. Explosion, fire or burns 8. Exposure electrical 	<ul style="list-style-type: none"> 9. Exposure noise, chemical, biological, vibration, extreme temperature 10. Falls from height 11. Overexertion, strain 12. Pressure release 13. Slips and trips (at same height) 14. Struck by (not dropped object) 15. Water related, drowning 16. Unspecified - Other
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Type of activity: (ring one - required)

<ul style="list-style-type: none"> 1. Construction, commissioning, decommissioning 2. Diving, subsea, ROV 3. Drilling, workover, well services 4. Excavation, trenching, ground disturbance 5. Lifting, crane, rigging, deck operations 6. Maintenance, inspection, testing 7. Office, warehouse, accommodation, catering 	<ul style="list-style-type: none"> 8. Production operations 9. Seismic/survey operations 10. Transport - Air 11. Transport - Land 12. Transport - Water, incl. marine activity 13. Unspecified - other
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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"> 1. Deviation intentional (by individual or group) 2. Deviation unintentional (by individual or group) 3. Improper position (in the line of fire) 4. Overexertion or improper position/posture for task 5. Work or motion at improper speed 6. Improper lifting or loading <p>Use of Tools, Equipment, Materials and Products:</p> <ul style="list-style-type: none"> 7. Improper use/position of tools/equipment/materials/products 8. Servicing of energised equipment/inadequate energy isolation <p>Use of Protective Methods:</p> <ul style="list-style-type: none"> 9. Failure to warn of hazard 10. Inadequate use of safety systems 11. Personal Protective Equipment not used or used improperly 12. Equipment or materials not secured 13. Disabled or remove guards, warning systems or safety devices <p>Inattention/Lack of Awareness:</p> <ul style="list-style-type: none"> 14. Improper decision making or lack of judgment 15. Lack of attention/distracted by other concerns/stress 16. Acts of violence 17. Use of drugs or alcohol 18. Fatigue 	<p>PROCESS (CONDITIONS)</p> <p>Protective Systems:</p> <ul style="list-style-type: none"> 19. Inadequate/defective guards or protective barriers 20. Inadequate/defective Personal Protective Equipment 21. Inadequate/defective warning systems/safety devices 22. Inadequate security provisions or systems <p>Tools, Equipment, Materials, Products:</p> <ul style="list-style-type: none"> 23. Inadequate design/specification or management of change 24. Inadequate/defective tools/equipment/materials/ products 25. Inadequate maintenance/inspection/testing <p>Work Place Hazards:</p> <ul style="list-style-type: none"> 26. Congestion, clutter or restricted motion 27. Inadequate surfaces, floors, walkways or roads 28. Hazardous atmosphere (explosive/toxic/asphyxiant) 29. Storms or acts of nature <p>Organisational:</p> <ul style="list-style-type: none"> 30. Inadequate training/competence 31. Inadequate work standards/procedures 32. Inadequate hazard identification or risk assessment 33. Inadequate communication 34. Inadequate supervision 35. Poor leadership/organisational culture 36. Failure to report/learn from incidents
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Primary Life-Saving Rule (ring one)
 The applicable rule is the rule that failed or was violated by the victim or other individual
 See IOGP report 459

<ul style="list-style-type: none"> 1. Bypassing safety controls 2. Confined space 3. Driving 4. Energy isolation 5. Hot work 	<ul style="list-style-type: none"> 6. Line of fire 7. Safe mechanical lifting 8. Work authorisation 9. Work at height 10. Other (give details below)
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Other applicable Life-Saving Rules (ring as many as apply)
 The applicable rule is the rule that failed or was violated by the victim or other individual
 See IOGP report 459

<ul style="list-style-type: none"> 1. Bypassing safety controls 2. Confined space 3. Driving 4. Energy isolation 5. Hot work 	<ul style="list-style-type: none"> 6. Line of fire 7. Safe mechanical lifting 8. Work authorisation 9. Work at height 10. Other (give details below)
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IOGP Safety Data Report

REPORT 3A - HIGH POTENTIAL EVENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022

Total number of high potential events for the reporting year.

The applicable rule is the rule that failed or was violated by an individual

For information on Rules see IOGP report 459, <http://extranet.iogp.org/allpublications/459.pdf>.

RULE	Number of events	Indicate whether your company uses the rule.		
		Yes	No	Don't know
Bypassing safety controls				
Confined space				
Driving				
Energy isolation				
Hot work				
Line of fire				
Safe mechanical lifting				
Work authorisation				
Working at height				
Other issues (give details below)				
Total	0	0	0	0

Please give details of any issues linked to high potential events that are not assigned to a Life-Saving Rule.

IOGP Safety Data Report

REPORT 4 - MOTOR VEHICLE CRASHES - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

MVC Categories (See IOGP Report 365-5 <http://www.iogp.org/pubs/365-5.pdf>)

Category C – Catastrophic events
 1. Any MVC resulting in one or more company, contractor or subcontractor fatalities
 2. Any MVC resulting in one or more third party fatalities associated with the MVC involving a company, contractor vehicle(s) or subcontractor

Category M – Major events
 3. Any MVC resulting in company, contractor or subcontractor injury where the most severe outcome is a Lost Work Day Case (LWDC)
 4. Any MVC resulting in company, contractor or subcontractor vehicle rollover

Category S – Serious events
 5. Any MVC resulting in company, contractor or subcontractor injury where the most severe outcome is a recordable injury (Medical Treatment Case and/or Restricted Work Day Case)

Category O – Other events
 6. Any MVC resulting in company, contractor or subcontractor injury where the most severe outcome is a Minor Injury (First Aid Case)
 7. Any MVC where company, contractor or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage)

Indicate types of incidents for which you have data, even if there were zero incidents.

Where a value is known to be zero enter 0 otherwise leave cell empty.

There should be no double counting, i.e. an MVC leading to fatality and LTI should only be counted as MVC with fatality

If you do not have the breakdown by function, data should be entered in the 'unspecified' row. This way the total row will show the total for each column (distance driven, MVC and fatalities).

A. COMPANY		Catastrophic (C) - fatal MVC							Major			Serious	Other		
CONSEQUENCE - most severe outcome:	Mileage - Kilometers driven*	1. Workforce fatality				2. 3rd party fatality			3. LWDC			4. Rollover not reported in items 1-3	5. MTC/RWDC	6. Minor injury (first aid case)	7. Cannot be driven away
		Crashes non-rollover	Crashes rollover	Workforce fatalities	3rd party fatalities	Crashes non-rollover	Crashes rollover	3rd party fatalities	Crashes non-rollover	Crashes rollover	Crashes rollover	Crashes non-rollover	Crashes non-rollover	Crashes non-rollover	
Reported even if zero? (enter 'yes' or 'no')															
Exploration															
Drilling															
Production															
Construction															
Unspecified															
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0

* If you do not have the breakdown by function use the 'unspecified' row so that the total equals the total distance driven.

B. CONTRACTOR		Catastrophic (C) - fatal MVC							Major			Serious	Other		
CONSEQUENCE - most severe outcome:	Mileage - Kilometers driven*	1. Workforce fatality				2. 3rd party fatality			3. LWDC			4. Rollover not reported in items 1-3	5. MTC/RWDC	6. Minor injury (first aid case)	7. Cannot be driven away
		Crashes non-rollover	Crashes rollover	Workforce fatalities	3rd party fatalities	Crashes non-rollover	Crashes rollover	3rd party fatalities	Crashes non-rollover	Crashes rollover	Crashes rollover	Crashes non-rollover	Crashes non-rollover	Crashes non-rollover	
Reported even if zero? (enter 'yes' or 'no')															
Exploration															
Drilling															
Production															
Construction															
Unspecified															
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0

* If you do not have the breakdown by function use the 'unspecified' row so that the total equals the total distance driven.

IOGP Safety Data Report

REPORT 5 - PROCESS SAFETY EVENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Process Safety Events (PSE), is a lagging indicator based on Loss of Primary Containment (LOPC). There are two "tiers" of PSE: Tier 1 is 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, 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 reports the number of offshore or onshore 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 LWDC" 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 tables should be completed in the same way as the Tier 1 tables, noting that certain categories, such as fatalities, are not relevant for Tier 2.

EXAMPLE EVENT: An 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 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 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, willful damage or an equivalent must ONLY be entered in Report 6A

TIER 1			CONSEQUENCE: Number of PSE that resulted in these consequences (all that apply)						Fatal PSE and Fatalities		
Location	Function	Total Process Safety Events	Employee or Contractor Fatality or LWDC as	Third party hospitalization or fatality as	Community Evacuation or Shelter-in-place	Fire or explosion >\$100,000 loss	PRD discharges above Tier 1 thresholds	Material release above Tier 1 threshold	Events resulting in one or more fatalities	Total number of Employee and Contractor Fatalities	Total number of 3rd Party Fatalities
Onshore	drilling										
	production										
Offshore	drilling										
	production										
Total		0	0	0	0	0	0	0	0	0	0

Additional data (if available)		Note: Total numbers of PSE recorded in both tables below must equal Total PSE above									
Location	Function	Total Process Safety Events	MATERIAL: Number of PSE by Material (one material per event)				Total Process Safety Events	ACTIVITY: Number of PSE by Activity (one activity per event)			
			Toxics (cat. 1-4)	Flammable gas (cat. 5)	Hazardous Liquid (cat 6 or 7)	Other gases or liquids		Start-up	Normal Operations	Shutdown	Other
		PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE
Onshore	drilling	0					0				
	production	0					0				
Offshore	drilling	0					0				
	production	0					0				
Total		0	0	0	0	0	0	0	0	0	0

TIER 2		CONSEQUENCE: Number of PSE that resulted in these consequences (all that apply)				
Location	Function	Total Process Safety Events	Employee or Contractor Recordable Injury as consequence	Fire or explosion > \$2,500 loss	PRD discharges above Tier 2 thresholds	Material release above Tier 2 threshold
Onshore	drilling					
	production					
Offshore	drilling					
	production					
Total		0	0	0	0	0

Additional data (if available)		Note: Total numbers of PSE recorded in both tables below must equal Total PSE above									
Location	Function	Total Process Safety Events	MATERIAL: Number of PSE by Material (one material per event)				Total Process Safety Events (PSE)	ACTIVITY: Number of PSE by Activity (one activity per event)			
			Toxics (cat. 1-4)	Flammable gas (cat. 5)	Hazardous Liquid (cat 6 or 7)	Other gases or liquids		Start-up	Normal Operations	Shutdown	Other
		PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE
Onshore	drilling	0					0				
	production	0					0				
Offshore	drilling	0					0				
	production	0					0				
Total		0	0	0	0	0	0	0	0	0	0

IOGP Safety Data Report

REPORT 5A - PROCESS SAFETY EVENTS DUE TO SABOTAGE OR WILLFUL DAMAGE - 2022 DATA

Company	0
Contact name/title	
Year	2022
Country	

Process Safety Events (PSE), is a lagging indicator based on Loss of Primary Containment (LOPC). There are two "tiers" of PSE: Tier 1 is 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, 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 reports the number of offshore or onshore 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 LWDC" 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 tables should be completed in the same way as the Tier 1 tables, noting that certain categories, such as fatalities, are not relevant for Tier 2.

EXAMPLE EVENT: An 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 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 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.

Use this form to report only events that were caused by sabotage, willful damage or an equivalent. Events reported in this form must not be entered in Report 6

TIER 1			Note: A single PSE may result in multiple consequences; therefore the total of all columns below should equal or exceed Total PSE								Fatal PSE and Fatalities	
Sabotage/willful damage only NOT to be entered in Report 6			CONSEQUENCE: Number of PSE that resulted in these consequences (all that apply)									
Location	Function	Total Process Safety Events	Employee or Contractor Fatality or LWDC as consequence	Third party hospitalization or fatality as consequence	Community Evacuation or Shelter-in-place	Fire or explosion >\$100,000 loss	PRD discharges above Tier 1 thresholds	Material release above Tier 1 threshold	Events resulting in one or more fatalities	Total number of Employee and Contractor Fatalities	Total number of 3rd Party Fatalities	
		PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	FATALITIES	3RD PARTY FATALITIES	
Onshore	drilling											
	production											
Offshore	drilling											
	production											
Total		0	0	0	0	0	0	0	0	0	0	

Additional data (if available)			Note: Total numbers of PSE recorded in both tables below must equal Total PSE above								
Location	Function	Total Process Safety Events	MATERIAL: Number of PSE by Material (one material per event)				Total Process Safety Events	ACTIVITY: Number of PSE by Activity (one activity per event)			
			Toxics (cat. 1-4)	Flammable gas (cat. 5)	Hazardous Liquid (cat 6 or 7)	Other gases or liquids		Start-up	Normal Operations	Shutdown	Other
		PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE
Onshore	drilling	0					0				
	production	0					0				
Offshore	drilling	0					0				
	production	0					0				
Total		0	0	0	0	0	0	0	0	0	0

TIER 2			Note: A single PSE may result in multiple consequences; therefore the total of all columns below should equal or exceed Total PSE			
Sabotage/willful damage only NOT to be entered in Report 6			CONSEQUENCE: Number of PSE that resulted in these consequences (all that apply)			
Location	Function	Total Process Safety Events	Employee or Contractor Recordable Injury as consequence	Fire or explosion > \$2,500 loss	PRD discharges above Tier 2 thresholds	Material release above Tier 2 threshold
		PSE	PSE	PSE	PSE	PSE
Onshore	drilling					
	production					
Offshore	drilling					
	production					
Total		0	0	0	0	0

Additional data (if available)			Note: Total numbers of PSE recorded in both tables below must equal Total PSE above								
Location	Function	Total Process Safety Events	MATERIAL: Number of PSE by Material (one material per event)				Total Process Safety Events (PSE)	ACTIVITY: Number of PSE by Activity (one activity per event)			
			Toxics (cat. 1-4)	Flammable gas (cat. 5)	Hazardous Liquid (cat 6 or 7)	Other gases or liquids		Start-up	Normal Operations	Shutdown	Other
		PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	PSE	
Onshore	drilling	0					0				
	production	0					0				
Offshore	drilling	0					0				
	production	0					0				
Total		0	0	0	0	0	0	0	0	0	

IOGP Safety Data Report

REPORT 5B - TIER 1 PSE REPORT - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

PROCESS SAFETY EVENT DETAILS

EXAMPLES AND EXPLANATION/GUIDANCE

Please provide the following information where relevant for the purpose of validation. Exact numbers are not required. If figures are not available please enter the threshold limit that was exceeded. The quantities requested in the shaded boxes are for validation purposes only and will not be published or used for data analysis

What was released? (ring one)

1. Flammable gas
2. Flammable Liquids with Boiling Point <= 35C (95F) and Flash Point < 23C (73F)
3. Flammable Liquids with Boiling Point > 35C (95F) and Flash Point < 23C (73F)
4. Combustible Liquids with Flash Point >= 23C (73F) and <= 60C (140F)
5. Liquids with Flash Point >60C(140F) released at a temperature at or above its flash point
6. Liquids with Flash Point >60C(140F) released at a temperature below its flash point
7. Toxic material

See report 456 Table E-4

If toxic, what was the toxic material?

See report 456 Table E-5

If toxic, give % of toxic component if applicable (i.e. % H₂S released) and quantity.

Was the release indoors or outdoors?

Indoor releases have a lower threshold quantity

What was the duration of the release in hours?

For releases of duration greater than one hour, what was the maximum quantity released in any one hour period of the release duration? Liquid releases can be reported as mass (kg or lb) or volume (bbl), but gas releases should be reported as mass (kg or lb).

Process safety events are categorized by the maximum quantity released in any one hour period of the release duration. If the duration of the release is less than 1 hour, the total quantity released is used.

How much was released in total? Report in mass units not volume. Include units.

Please explain why it has been classified as a Tier 1 PSE.

Date of event (day/month/year):

Time event occurred (or time of day):

Number of company/contractor fatalities

Number of 3rd party fatalities

Place of event (ring one)

- ONSHORE
- OFFSHORE

Function (Incident) (ring one):

- DRILLING AND COMPLETIONS
- PRODUCTION

Incident description:

What went wrong? (main root causes):

Lessons learnt and recommendations to prevent reoccurrence:

Incident category:
(ring at least one and all that apply)

1. An employee, contractor or subcontractor 'days away from work' injury and/or fatality
2. A hospital admission and or fatality of a third party
3. An officially declared community evacuation or community shelter-in-place
4. Fire/Explosion damage >\$100,000 direct cost to the company
5. PRD release to atmosphere above threshold in any 1 hour period and results in:
 - liquid carryover or
 - discharge to a potentially unsafe location or
 - onsite shelter in place or
 - public protective measure (e.g. road closure)
6. A release above threshold quantity in any 1 hour period

Note - Non-toxic and non-flammable materials (e.g. steam, hot water, nitrogen, CO₂ and compressed air) have no threshold quantities and are only included in this definition as a result of their potential to result in one of the other consequences.

REPORT 5B - TIER 1 PSE REPORT

Type of activity:
(ring one - required)

1. Drilling
2. Completions
3. Workover/Well services
4. Production operations
5. Pipeline operations
6. Unspecified - other

Explain Other:

Mode of Operation
(ring one - required)

Production

1. Start-up
2. Planned shutdown
3. Emergency shutdown
4. Normal
5. Upset
6. Turnaround
7. Routine maintenance
8. Temporary
9. Other production

Drilling and Completion Operations

10. Drilling
11. Completion
12. Well intervention / Well servicing
13. Well flow testing
14. Abandonment
15. Recompletion

Point of Release
(ring one - required)

Piping in Process and Utility Systems (excluding subsea)

1. Piping joint
2. Piping material/tubing
3. Valve (body, stem, plugs)
4. Choke
5. Instrumentation and small bore tubing
6. Sight glass
7. Platform/Well Pad Flowline
8. Flexible hose/piping

Equipment

9. Pressure vessel
10. Pig launcher/receiver
11. Pump
12. Compressor/blower/fan
13. Meter
14. Filter
15. Fired heater/Boiler/Furnace
16. Power generation unit
17. Reactor
18. Heat exchanger

Tanks and Sumps/Pits

19. Atmospheric tank
20. Atmospheric tank overflow
21. Pressurised storage vessel
22. Sump/pit overflow

Relief, Vent and Discharge Systems

23. Relief valve (body, plugs)
24. Flare and atmospheric vent systems (intended discharge location)
25. Flare and atmospheric vent systems (not at intended discharge location)
26. Drain
27. Discharge to sea

Breaking Containment Locations

28. Breaking containment location
29. Loading/unloading coupling
30. Sample system
31. Piping/valve (inadvertently left) open to atmosphere

Wells, drilling and intervention

32. Well
33. Subsea well
34. Well intervention equipment
35. Mud circuit/tanks

Subsea

36. Subsea pipeline/flowline
37. Subsea equipment

Onshore Pipelines/Flowlines

38. Onshore pipeline
39. Onshore flowline

Unknown/insufficient information

40. Unknown/insufficient information

Barrier failures
(ring as many as apply)

Hardware Barrier failures

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

Human Barrier failures

9. Operating in accordance with procedures
 - PTW, Isolation of equipment, Overrides and inhibits of safety systems, Shift handover, etc.
10. Surveillance, operator rounds and routine inspection
11. Authorisation of temporary and mobile equipment
12. Acceptance of handover or restart of facilities or equipment
13. Response to process alarm and upset conditions (e.g. outside safe envelope)
14. Response to emergencies

Management System Element barrier failure*

15. Element 1 – Commitment and accountability
16. Element 2 – Policies, standards and objectives
17. Element 3 – Organisation, resources and capability
18. Element 4 – Stakeholders and customers
19. Element 5 – Risk assessment and control
20. Element 6 – Asset design and integrity
21. Element 7 – Plans and procedures
22. Element 8 – Execution of activities
23. Element 9 – Monitoring, reporting and learning
24. Element 10 – Assurance, review and improvement

***Reference IOGP report 510**

Causal factors
(ring as many as apply)
See User Guide Appendix 3A

PEOPLE (ACTS)

- Following Procedures:
1. Deviation intentional (by individual or group)
 2. Deviation unintentional (by individual or group)
 3. Improper position (in the line of fire)
 4. Overexertion or improper position/posture for task
 5. Work or motion at improper speed
 6. Improper lifting or loading
- Use of Tools, Equipment, Materials and Products:
7. Improper use/position of tools/equipment/materials/products
 8. Servicing of energised equipment/inadequate energy isolation
- Use of Protective Methods:
9. Failure to warn of hazard
 10. Inadequate use of safety systems
 11. Personal Protective Equipment not used or used improperly
 12. Equipment or materials not secured
 13. Disabled or remove guards, warning systems or safety devices
- Inattention/Lack of Awareness:
14. Improper decision making or lack of judgment
 15. Lack of attention/distracted by other concerns/stress
 16. Acts of violence
 17. Use of drugs or alcohol
 18. Fatigue

PROCESS (CONDITIONS)

- Protective Systems:
19. Inadequate/defective guards or protective barriers
 20. Inadequate/defective Personal Protective Equipment
 21. Inadequate/defective warning systems/safety devices
 22. Inadequate security provisions or systems
- Tools, Equipment, Materials, Products:
23. Inadequate design/specification or management of change
 24. Inadequate/defective tools/equipment/materials/ products
 25. Inadequate maintenance/inspection/testing
- Work Place Hazards:
26. Congestion, clutter or restricted motion
 27. Inadequate surfaces, floors, walkways or roads
 28. Hazardous atmosphere (explosive/toxic/asphyxiant)
 29. Storms or acts of nature
- Organisational:
30. Inadequate training/competence
 31. Inadequate work standards/procedures
 32. Inadequate hazard identification or risk assessment
 33. Inadequate communication
 34. Inadequate supervision
 35. Poor leadership/organisational culture
 36. Failure to report/learn from incidents

Process safety fundamental
(ring one)
Reference IOGP Report 638

1. We respect hazards
2. We apply procedures
3. We sustain barriers
4. We stay within operating limits
5. We maintain safe isolation
6. We walk the line
7. We control ignition sources
8. We recognise change
9. We stop if the unexpected occurs
10. We watch for weak signals

Primary Life-Saving Rule
(ring one)
The applicable rule is the rule that failed or was violated by the victim or other individual
See IOGP report 459

1. Bypassing safety controls
2. Confined space
3. Driving
4. Energy isolation
5. Hot work

6. Line of fire
7. Safe mechanical lifting
8. Work authorisation
9. Work at height
10. Other (give details below)

Other applicable Life-Saving Rules
(ring as many as apply)
The applicable rule is the rule that failed or was violated by the victim or other individual
See IOGP report 459

1. Bypassing safety controls
2. Confined space
3. Driving
4. Energy isolation
5. Hot work

6. Line of fire
7. Safe mechanical lifting
8. Work authorisation
9. Work at height
10. Other (give details below)

IOGP Safety Data Report

REPORT 6 - WELL CONTROL INCIDENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Enter the number of well control incidents in the reporting year

For each Level 1 and Level 2 and Level 3, please provide details by filling a REPORT 6A tab (one per incident)

Activity	Well Control Incidents		
	Level 1	Level 2	Level 3 (Optional)
Drilling			
Completion			
Well intervention/Well servicing			
Well flow testing			
Abandonment			
Recompletion			
Unspecified (breakdown by activity not available)			
Total Number of occurrences	0	0	0

REPORT 6A - WELL CONTROL INCIDENT REPORT - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country (where incident occurred)	

EXAMPLES AND EXPLANATION/GUIDANCE

Please provide descriptive information in the proper box for the purpose of validating the classification. Volumes and fluid composition are not required. The description requested in the shaded boxes are for validation purposes only and will not be published or used for data analysis.

If it was Level 1 WCI, please explain why.	
If it was Level 2 WCI, please explain why.	
If it was a Level 3 WCI, please explain why. Reporting of Level 3 WCI is optional.	

Level 1 WCI - Loss of Well control. Uncontrolled flow of formation or other fluids resulting in either a seabed or surface release or underground communication to another formation or well.

Level 2 WCI - Multiple Barrier Systems Failures and Challenges. One barrier system within the well design failed and other barrier system(s) failed or were challenged beyond design capacity resulting in an influx without uncontrolled flow.

WCI Level 3 - Challenges to Safety Systems. A single barrier system within the well design failed resulting in an influx while other barrier systems performed as designed without uncontrolled flow.

Was the incident also a PSE? Yes No

Was the incident also an oil or chemical spill? Yes No

Category of incident (ring one):
 Level 1
 Level 2
 Level 3

Date of incident (day/month/year):

Time incident occurred (or time of day):

Number of company fatalities:

Number of contractor fatalities:

Number of 3rd party fatalities:

Number of RWDC:

Number of LWDC:

Place of incident (ring one)
 ONSHORE
 OFFSHORE

Incident description:

What went wrong? (main root causes):

Lessons learnt and recommendations to prevent recurrence:

Type of activity:
 (ring or highlight)
 1. Drilling
 2. Completion
 3. Well intervention/Well servicing
 4. Well flow testing
 5. Recompletion
 6. Abandonment
 7. Other
 Explain Other:

Note: Changes to definitions and examples published in Report 456 2nd revision (2023) will be applicable for 2023 data but will for 2022 data.

REPORT 6A - WELL CONTROL INCIDENTS

Water Depth		<input type="checkbox"/> ft <input type="checkbox"/> m
Well Type (ring or highlight)	1. Exploration 2. Appraisal 3. Development	
Well Classification (ring or highlight)	1. HP 2. HT 3. HPHT 4. Normal pressure	
Depth at time of incident		<input type="checkbox"/> ft <input type="checkbox"/> m
Depth of incident		<input type="checkbox"/> ft <input type="checkbox"/> m
Hole diameter		<input type="checkbox"/> ft <input type="checkbox"/> m
Nature of Influx (ring or highlight)	1. Oil 2. Gas 3. Mud 4. Water 5. Other, please specify	
Density of fluids in well before incident		<input type="checkbox"/> ppg <input type="checkbox"/> sg
BOPs Sealed OK (ring or highlight)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	
Well Control Method (ring or highlight)	1. Circulation kill fluid 2. Bullhead kill fluid 3. Lubrication 4. Dynamic 5. Cementing 6. Capping 7. Relief well 8. Mechanical plug 9. Repair 10. Other, please specify	
Barrier failures (ring or highlight as many as apply)	<p><u>Hardware Barrier failures</u></p> 1. Detection systems 2. Hydrostatic barrier 3. In-der drill string barrier 4. BOP system 5. Station keeping system 6. Casing 7. Completion element 8. Cement 9. Wellhead - xmas tree 10. Well collision	
	<p><u>Human Barrier failures</u></p> 11. Operating in accordance with programs or procedures 12. Monitoring of well: well returns, fill up when tripping, well surveillance during other works 13. Acceptance of handover, pre-tour check lists 14. Drill crew training and drills 15. Calculation of hydrostatic barrier fluid weight 16. Wrong usage of equipment 17. In flow testing of barriers 18. Response to alarms, interpretation of P readings and trends 19. Other drilling practices	
	<p><u>Management System Element barrier failure*</u></p> 20. Element 1 – Commitment and accountability 21. Element 2 – Policies, standards and objectives 22. Element 3 – Organization, resources and capability 23. Element 4 – Stakeholders and customers 24. Element 5 – Risk assessment and control 25. Element 6 – Asset design and integrity 26. Element 7 – Plans and procedures 27. Element 8 – Execution of activities 28. Element 9 – Monitoring, reporting and learning 29. Element 10 – Assurance, review and improvement	
Causal factors (ring or highlight as many as apply) See User Guide Appendix 3A	<p>*Reference IOGP report 510</p> <p>PEOPLE (ACTS)</p> <p>Following Procedures:</p> 1. Deviation intentional (by individual or group) 2. Deviation unintentional (by individual or group) 3. Improper position (in the line of fire) 4. Overexertion or improper position/posture for task 5. Work or motion at improper speed 6. Improper lifting or loading	<p>PROCESS (CONDITIONS)</p> <p>Protective Systems:</p> 19. Inadequate/defective guards or protective barriers 20. Inadequate/defective Personal Protective Equipment 21. Inadequate/defective warning systems/safety devices 22. Inadequate security provisions or systems
	<p>Use of Tools, Equipment, Materials and Products:</p> 7. Improper use/position of tools/equipment/materials/products 8. Servicing of energised equipment/inadequate energy isolation	<p>Tools, Equipment, Materials, Products:</p> 23. Inadequate design/specification or management of change 24. Inadequate/defective tools/equipment/materials/ products 25. Inadequate maintenance/inspection/testing
	<p>Use of Protective Methods:</p> 9. Failure to warn of hazard 10. Inadequate use of safety systems 11. Personal Protective Equipment not used or used improperly 12. Equipment or materials not secured	<p>Work Place Hazards:</p> 26. Congestion, clutter or restricted motion 27. Inadequate surfaces, floors, walkways or roads 28. Hazardous atmosphere (explosive/toxic/asphyxiant) 29. Storms or acts of nature
	<p>Inattention/Lack of Awareness:</p> 14. Improper decision making or lack of judgment 15. Lack of attention/distracted by other concerns/stress 16. Acts of violence 17. Use of drugs or alcohol 18. Fatigue	<p>Organisational:</p> 30. Inadequate training/competence 31. Inadequate work standards/procedures 32. Inadequate hazard identification or risk assessment 33. Inadequate communication 34. Inadequate supervision 35. Poor leadership/organisational culture 36. Failure to report/learn from incidents

APPENDIX 6: Motor Vehicle Crashes – worked examples

How would I classify the following crash for IOGP reporting purposes?

1. An employee driving a company owned, contracted, leased or rental car while on company business hits or is struck by an animal while en route to a field location and the vehicle cannot be driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage)
2. An employee driving a company owned, contracted, leased or rental car while on company business swerves to avoid an animal while en route to a field location with light damage to the bumper but can be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.
3. A company vehicle is involved in a collision with a third party vehicle. There is only light damage to the company car but the third party vehicle is severely damaged and cannot be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria. Note: disabling damage is only considered as a criteria for company, contractor, or subcontractor vehicle, not for the third party vehicle involved.
4. A contractor dump truck pulls away from the side of the road and runs over a pedestrian. The pedestrian dies as a result of the injuries.

Answer: IOGP MVC – Yes; Category C – Catastrophic events

Category C – Catastrophic events, subcategory 2: Any MVC resulting in one or more third party fatalities associated with the MVC involving a company, contractor, or subcontractor vehicle(s).
5. A car is picked up by a maintenance company for repairs and is involved in an incident.

Answer: IOGP MVC – No; Severity – N/A

Note: the maintenance company is a supplier not a contractor in scope for MVC definition.
6. An employee is taking company cars in for service during normal working hours and suffers minor damage when struck by another vehicle but can be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

7. A customer arranges transport of company product and the transporter is involved in motor vehicle crash while delivering product.

Answer: IOGP MVC – No; Severity – N/A

Note: the customer is arranging the transport, not a contractor in scope for MVC definition unless there is a contractual relationship with the customer to provide transport service of company owned product.

8. During product delivery, an operator does not remove the overfill protection device or 'scully cord' and drives off.

Answer: IOGP MVC – No; Severity – N/A

Note: any event involving loading or unloading from the vehicle are excluded from MVC reporting.

9. A piece of equipment on the back of a contractor's flatbed truck was damaged during transit by striking a fixed object (i.e., overhead piping or bridge deck – driver did not check for clearance) but the vehicle can be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

10. A company employee has a crash involving a JV-owned vehicle. No injury occurred and the vehicle can be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

11. While following another vehicle, a part of the load of the vehicle in front falls and strikes the company vehicle. The company vehicle cannot be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage).

12. An employee driving a company car for personal use dies as a result of an MVC.

Answer: IOGP MVC – No; Severity – N/A

Note: This event is not work-related.

13. An employee of a contractor hired to transport employee's families is involved in a collision with another vehicle while driving a company employee's family to the supermarket. The driver and a family member require medical treatment and the vehicle cannot be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category S – Serious events

Category S – Serious events, subcategory 5: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a recordable injury (Medical Treatment Case and/or Restricted Work Day Case).

14. An employee of a contractor is transporting a company employee and strikes another vehicle. The driver suffers an injury resulting in days away from work.

Answer: IOGP MVC – Yes; Category M – Major events

Category M – Major events, subcategory 3: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a Lost Work Day Case (LWDC).

15. A chauffeur hired by the company is driving a company employee to work in a company car and strikes another vehicle but both vehicles can be safely driven from the scene under their own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

16. An employee of a contractor is driving a company employee's family member to school and strikes another vehicle. The 3rd party vehicle cannot be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria. Note: disabling damage is only considered as a criteria for company, contractor, or subcontractor vehicle, not for the third party vehicle involved.

17. A contract employee is transporting a company employee to that employee's normal work location when a motor vehicle incident occurs. The 3rd party vehicle involved cannot be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria. Note: disabling damage is only considered as a criteria for company, contractor, or subcontractor vehicle, not for the third party vehicle involved.

18. A crash occurs while driving a rental car on company business resulting in a minor injury (first aid case) and the vehicle can be driven in a roadworthy state.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 6: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a Minor Injury (First Aid Case).

19. A crash occurs involving a contractor vehicle performing work for the company. The vehicle cannot be driven from the scene.

Answer: IOGP MVC – Yes; Category O – Other events.

Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage).

20. A contracted individual transporting product to a customer is involved in motor vehicle crash. No injury occurs but the vehicle cannot be safely driven from the scene under its own power.
Answer: IOGP MVC – Yes; Category O – Other events.
Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage).
21. A vehicle driven by an employee while on company business is rear-ended at a stoplight. The employee needs medical treatment and loses a day away from work.
Answer: IOGP MVC – Yes; Category M – Major events
Category M – Major events, subcategory 3: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a Lost Work Day Case (LWDC).
22. A vehicle driven by an employee is rear-ended at a stop light while on company business. There is no injury to the employee and the vehicle is drivable however there is an injury to the 3rd party.
Answer: IOGP MVC – Yes; Category O – Other events.
Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.
Note: an injury is only considered as a criteria for company, contractor, or subcontractor employee, not for the third party individual involved.
23. A contractor truck under company operational control breaks down. Another truck passing by offers to help and in the process of transporting the load is involved in an MVC where either vehicle cannot be safely driven from the scene under its own power.
Answer: IOGP MVC – Yes; Category O – Other events.
Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage).
24. The company contracts with another company that subsequent uses a 3rd party trucking company to deliver a product that is hit by another vehicle. A third-party fatality occurs.
Answer: IOGP MVC – Yes; Category C – Catastrophic events
Category C – Catastrophic events, subcategory 2: Any MVC resulting in one or more third party fatalities associated with the MVC involving a company, contractor, or subcontractor vehicle(s).
25. A company car driven by a spouse driving an employee to an airport for a business trip is struck by another vehicle and the 3rd party vehicle cannot be safely driven from the scene under its own power.
Answer: IOGP MVC – Yes; Category O – Other events.
Category O – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria. Note: disabling damage is only considered as a criteria for company, contractor, or subcontractor vehicle, not for the third party vehicle involved.

26. A contractor borrows a company vehicle to drive to a work-related meeting and is involved in an MVC. The vehicle cannot be driven from the scene under its own power.
Answer: IOGP MVC – Yes; Category O – Other events.
Category O – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage)
27. Any employee has a crash while driving to/from home in a personal car and regular workplace or assembly point.
Answer: IOGP MVC – No; Severity – NA
Note: This event is not work-related (as this involves a commute to/from work).
28. Any employee has a crash while driving to/from home in a company vehicle and regular workplace or assembly point. The employee has a lost workday associated with the MVC.
Answer: IOGP MVC – No; Severity – NA
Note: This event is not work-related (as this involves a commute to/from regular workplace).
29. An employee is taking a taxi to the hotel from the airport on a business trip. The taxi is rear-ended, and employee suffers a lost workday as a result of the incident.
Answer: IOGP MVC – Yes; Category M – Major events
Category M – Major events, subcategory 3: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a Lost Work Day Case (LWDC).
30. An employee is traveling to a company social dinner when struck by another vehicle.
Answer: IOGP MVC – No; Severity – NA
Note: This event is not work-related.
31. An employee business trip includes a non-working weekend stay over. The employee has a crash with the rental car during the weekend prior to returning to work.
Answer: IOGP MVC – No; Severity – NA
Note: This event is not work-related.
32. An employee returns from a business trip, gets in their personal car parked at the airport, proceeds to drive home, and is involved in a MVC that results in a rollover.
Answer: IOGP MVC – Yes; Category M – Major events
Category M – Major events, subcategory 4: Any MVC resulting in company, contractor, or subcontractor vehicle rollover.
33. An employee on company business turns his rental vehicle over to a hotel valet to park. The valet strikes a pole and knocks the side mirror off.
Answer: IOGP MVC – No; Severity – NA
Note: would be in scope in case the employee would have driven the vehicle.

34. An employee on company runs over a small object on the road or is hit by a small object that causes superficial damage (e.g., stone chip)

Answer: IOGP MVC – No; Severity – NA

Note: superficial damage, such as a stone/rock chip damaging a windscreen/or paintwork, while the vehicle is being driven should not be reported as a MVC.

35. An employee on company business drops a load item onto the road.

Answer: IOGP MVC – No; Severity – NA

Note: an event where there has been no collision or any other damage than to the vehicle itself, this includes but not limited to: engine fire, losing a wheel and brake failure while maintaining control of the vehicle should not be reported as a MVC.

36. An employee on company business drops a load item onto the road that is subsequently struck by another vehicle rendering it inoperable.

Answer: IOGP MVC – Yes; Category 0 – Other events.

Category 0 – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

Note: disabling damage is only considered as a criteria for company, contractor, or subcontractor vehicle, not for the third party vehicle involved.

37. An employee on company business strikes an object on the road that causes damage but can be safely driven from the scene under its own power.

Answer: IOGP MVC – Yes; Category 0 – Other events.

Category 0 – Other events, subcategory 8: Any other MVC involving a company, contractor, or subcontractor vehicle that does not meet any of the other criteria.

38. An employee on company business encounters road damage (pothole) that when struck causes damage sufficient to require towing.

Answer: IOGP MVC – Yes; Category 0 – Other events.

Category 0 – Other events, subcategory 7: Any MVC where company, contractor, or subcontractor vehicle cannot be driven from the scene under its own power in a roadworthy state (disabling damage)

39. While parking a company vehicle into a parking space in a car park while on company business, the vehicle scrapes the car park wall resulting in superficial scratches to the rear bumper.

Answer: IOGP MVC – No; Severity – NA

Note: superficial damage, such as a stone/rock chip damaging a windscreen/or paintwork, while the vehicle is being driven should not be reported as a MVC.

40. While driving a company vehicle, the right rear wheel falls off due to loose wheel nuts. The vehicle cannot be driven from the scene because of damage to the wheel – no injuries occurred.

Answer: IOGP MVC – No; Severity – NA (Vehicle Damage only, no collision)

Note: an event where there has been no collision or any other damage than to the vehicle itself, this includes but not limited to: engine fire, losing a wheel and brake failure while maintaining control of the vehicle should not be reported as a MVC.

41. An assigned driver (an employee of a company contractor) is driving a company employee in a contractor vehicle to a field facility site for their days work and strikes another vehicle. The driver suffers an injury resulting in days away from work.

Answer: IOGP MVC – Yes; Category M – Major events

Category M – Major events, subcategory 3: Any MVC resulting in company, contractor, or subcontractor injury where the most severe outcome is a Lost Work Day Case (LWDC).

42. An assigned driver (an employee of a company contractor) is involved in a crash with another car while driving a contractor vehicle. The driver was on their lunch break and was driving to get their lunch at the time of the crash. The driver sustained an injury that requires medical treatment.

Answer: IOGP MVC – No; Severity – N/A (Not work related)

43. A contractor vehicle that was being driven by a contract employee was transporting security personnel from their hometown to a company work location when a crash occurred. The incident resulted in one passenger fatality as well as injuries to other passengers and the driver, all of which required medical treatment.

Answer: IOGP MVC – Yes; Category C – Catastrophic events

Category C – Catastrophic events, subcategory 1: Any MVC resulting in one or more company, contractor, or subcontractor fatalities.

APPENDIX 7: Fatal incident description – worked example

IOGP Safety Data Report

REPORT 2 - FATAL INCIDENTS - 2022 DATA

Company	0
Contact name/title	0
Year	2022
Country	

Incident details

Was this incident also classified as a Tier 1 Asset Integrity / Process Safety Event? (see Report 6)

Was this incident also classified as a Motor Vehicle Crash? (see Report 5)

Date of incident (day/month/year):

Time incident occurred:

Place of incident (ring one):

Function (ring one):

Incident description:

What went wrong? (main root causes):

Lessons learnt and recommendations to prevent recurrence:

A COMPANY EMPLOYEES		Cause of injury*	Nature of injury*	Body part injured*	Age	Occupation*
FUNCTION (VICTIM)	No. of Fatalities from Incident					
Exploration						
Production						
Drilling						
Construction						
Unspecified						

B CONTRACTOR EMPLOYEES		Cause of injury*	Nature of injury*	Body part injured*	Age	Occupation*
FUNCTION (VICTIM)	No. of Fatalities from Incident					
Exploration						
Production	1	Dropped objects	Fracture	Head (incl. mouth, etc.)		
Drilling						
Construction						
Unspecified						

*See Option Lists tab

C THIRD PARTIES	
No. of Fatalities from Incident	

Type of activity: (ring one - required)	Construction, Commissioning, Decommissioning Diving, Subsea, ROV Drilling / Workover / Well Services Excavation, trenching, ground disturbance 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
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Primary Life-Saving Rule (ring one) <i>The applicable rule is the rule that failed or was violated by the victim or other individual</i> See IOGP report 459	1. Bypassing safety controls 2. Confined space 3. Driving 4. Energy isolation 5. Hot work	6. Line of fire 7. Safe mechanical lifting 8. Work authorisation 9. Work at height 10. Other (give details below)
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Other applicable Life-Saving Rules (ring as many as apply) <i>The applicable rule is the rule that failed or was violated by the victim or other individual</i> See IOGP report 459	1. Bypassing safety controls 2. Confined space 3. Driving 4. Energy isolation 5. Hot work	6. Line of fire 7. Safe mechanical lifting 8. Work authorisation 9. Work at height 10. Other (give details below)
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Causal factors (ring as many as apply) See User Guide Appendix 3A	PEOPLE (ACTS) Following Procedures: <ul style="list-style-type: none"> <input type="checkbox"/> Deviation intentional (by individual or group) <input type="checkbox"/> Deviation unintentional (by individual or group) <input type="checkbox"/> Improper position (in the line of fire) <input type="checkbox"/> Overexertion or improper position/posture for task <input type="checkbox"/> Work or motion at improper speed <input type="checkbox"/> Improper lifting or loading Use of Tools, Equipment, Materials and Products: <ul style="list-style-type: none"> <input type="checkbox"/> Improper use/position of tools/equipment/materials/products <input type="checkbox"/> Servicing of energized equipment/inadequate energy isolation Use of Protective Methods: <ul style="list-style-type: none"> <input type="checkbox"/> Failure to warn 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: <ul style="list-style-type: none"> <input type="checkbox"/> Improper decision making or lack of judgment <input type="checkbox"/> Lack of attention/distracted by other concerns/stress <input type="checkbox"/> Acts of violence <input type="checkbox"/> Use of drugs or alcohol <input type="checkbox"/> Fatigue 	PROCESS (CONDITIONS) Protective Systems: <ul style="list-style-type: none"> <input type="checkbox"/> Inadequate/defective guards or protective barriers <input type="checkbox"/> Inadequate/defective Personal Protective Equipment <input type="checkbox"/> Inadequate/defective warning systems/safety devices <input type="checkbox"/> Inadequate security provisions or systems Tools, Equipment, Materials, Products: <ul style="list-style-type: none"> <input type="checkbox"/> Inadequate design/specification or management of change <input type="checkbox"/> Inadequate/defective tools/equipment/materials/ products <input type="checkbox"/> Inadequate maintenance/inspection/testing Work Place Hazards: <ul style="list-style-type: none"> <input type="checkbox"/> Congestion, clutter or restricted motion <input type="checkbox"/> Inadequate surfaces, floors, walkways or roads <input type="checkbox"/> Hazardous atmosphere (explosive/toxic/asphyxiant) <input type="checkbox"/> Storms or acts of nature Organisational: <ul style="list-style-type: none"> <input type="checkbox"/> Inadequate training/competence <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
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APPENDIX 8: Process safety events – point of release

Additional definitions of the keyword categories for point of release are provided below.

The category **pipings in process and utility systems (excluding subsea)** – includes:

- Piping joint, including both flanged and other connection methods, e.g., clamp/hub connectors.
Excludes: flange joints at nozzle of equipment item as these are assigned to the equipment item
- Piping material/tubing, excluding fittings or connections, e.g., valves, flanged joints, flare/vent system piping, instrumentation and instrumentation tubing
- Valve (body, stem, plugs) excluding flanges joints on main inlet/outlet
- Choke
- Instrumentation and small-bore tubing, including instrument tubing, tappings, pressure transmitters, sight glasses, small bore tubing and associated fittings, e.g., connections, valves.
- Sightglass, excluding onshore flowlines after they leave the well pad as these are classified as onshore flowline under onshore pipelines/flowlines
- Platform/well pad flowline, including joints to fixed equipment, flexible piping or bellows, loading/unloading hoses
- Flexible hose/piping including the vessel itself and fittings, e.g., covers/hatches not covered by piping systems up to the first flange connection on the vessel nozzles, including vessel and finger-type slug-catchers.
Excludes: pressure vessels used for storage, e.g., LPG bullets and spheres.

The category of **equipment** includes the following:

- Pressure vessels - similar to vessels.
- Pig launcher/receiver, including the seal(s) as well as other part of equipment item.
- Pumps, including the seal(s) as well as any other part of equipment item.
- Compressor/blower/fan including any equipment on metering and prover loops.
- Meter including the filter unit and filter but excluding piping connections beyond inlet and outlet nozzles.
- Filters, includes incidents with fired heaters, including internal tubing failures.
- Fired heater/boiler/furnace, including temporary and permanent power generation units but excluding piping external to the unit connecting it to other services.
- Power generation unit - similar to vessels.
- Reactor, including incidents with non-fired heaters, including internal tubing failures.
- Heat exchangers, including incidents involving direct releases from atmospheric tanks (e.g., floor and wall, hatches, P&V valves) or other incidents such as lightning strikes, rim seal fires, sunken roofs etc. Also includes FPSO/FSO storage tanks. Includes ambient and refrigerated storage, above and below ground. Excludes overflow incidents, tank instrumentation and drainage tanks.

The category **tanks/sumps and pits** includes:

- Atmospheric tank, including incidents caused by both human error and/or equipment failures
- Atmospheric tank overflow, including LPG storage bullets and spheres, LNG storage tanks, above and below ground.
Excludes: slugcatchers (as these are included in vessels)
- Pressurized storage vessel, including both permanent sumps and bunds as well as permanent or temporary pits, e.g., well test pits.
- Sump or pit overflow, excludes upstream or downstream piping and flange connections to the valve, P&V valves and emergency hatches on tanks.

The category **relief, vent and drainage systems** includes:

- Relief valve (body, plugs) including liquid carryover events in flare/atmospheric vent systems.
Excludes: P&V valves and emergency hatches on tanks, releases from flare knock-out drums.
- Flare and atmospheric vent systems (intended discharge location).
- Flare and atmospheric vent systems (not at intended discharge location)
Excludes: human error type incidents which are included in the category "breaking containment location".
- Drain including produced water discharge route to sea.
- Discharge to sea, including incidents that occur during the process of breaking containment (with or without a permit to work (PTW))

The category **breaking containment locations** includes:

- Breaking containment location, including road tanker loading/unloading, marine vessel loading/unloading (including loading arms) and buoys as well as all materials (e.g., oil, LPG, LNG, condensate).
Excludes: Loading/unloading hoses.
- Loading/unloading coupling.
- Sample system, including incidents where vent, bleed or drain valves are left in the wrong position as part of a work activity, e.g., start up after maintenance.
- Piping/valve (inadvertently left) open to atmosphere, including land or platform-based wells.
Excludes equipment downstream of the well choke.

The category **wells, drilling and intervention** includes:

- Well
Excludes: equipment downstream of the well choke.
- Subsea well, including well intervention/drilling equipment attached to a well.
- Well intervention equipment, excludes: the well itself.
- Mud circuit/tanks, including subsea flowlines, risers (including non-subsea section above the splash zone), pipelines and umbilicals up to manifolds at well clusters.

The category **subsea** includes

- Subsea pipeline/flowline, including subsea equipment (piping, manifolds, jumpers, connections, valves etc.), except for subsea flowlines or pipelines and the wells themselves.
- Subsea equipment includes fittings (e.g., flanges, valves) on pipelines.

The category **onshore pipelines/flowlines** includes:

- Onshore pipeline, including onshore flowlines that extend away from a well pad and join a manifold some distance away. Onshore flowlines that join a manifold at or local to a well pad are classified under flowline in piping systems.
- Onshore flowlines, this category is intended for onshore flowlines that extend away from a well pad and join a manifold some distance away. Onshore flowlines that join a manifold at or local to a well pad are classified under flowline in piping systems.

APPENDIX 9: Fatality & Permanent Impairment classification examples and FAQ

Classification examples

1. Work related fatality

A person is crushed under a heavy metal plate. They are rescued and admitted to hospital for surgical repair of broken bones and ruptured soft tissue organ injuries. After 2 weeks they suffer multiorgan failure and died as a direct result of the severe nature of their injuries. This is a work related fatality.

2. Non work related fatality

A person suffers a fall down stairs at work and breaks their right radius (wrist). They are discharged from hospital after surgery with metal fixation of the wrist and require a plaster cast and home-based care for 6 weeks. 2 weeks after discharge they suffer a heart attack and died. There is no medical link to suggest the injury was an attributable factor to trigger the heart attack. The death was due to an underlying personal condition and is not a work-related fatality even though they passed away within 30 days of an incident.

3. Permanent impairment mobility

A person in an office-based role is run over by a company vehicle on a company worksite. Due to spinal injuries they require a wheelchair permanently. They can return to work and perform their office-based role without modifications but face significant challenges in their ability to self-care and perform the other activities of daily life. The injury caused a permanent impairment.

4. Brain injury

A person suffers a head injury from a heavy dropped object and is knocked unconscious. They are evacuated to a hospital and found to have a bleed on the brain and increased intracranial pressure. They require brain surgery to drain the bleeding and are placed in a therapeutic coma to optimize recovery. They are monitored and within one week are alert and able to converse but have no memory of the incident.

- a. If they required short-term seizure control medication, rehabilitation and psychological therapy post discharge but have fully recovered from any seizures, mood disturbance, emotional regulation or cognitive function and not require further medication or therapies beyond 180 days. – **NOT PI**
- b. If they were unable to return to a normal work role and schedule within 180 days due to one or more of the following: medication with impairing side effects, seizures, mood disturbance, emotional regulation or cognitive function decline. – **PI**

5. Post-Traumatic Stress Disorder (PTSD)

A person was involved in rescuing a coworker from an explosion/fire scenario and suffered first degree burns to their left arm. It required dressings and had a full recovery to normal skin function in six weeks. During the incident they witnessed their co-worker suffer extensive third degree burns. That co-worker subsequently died. This affected the person psychologically with recurrent flashbacks to the incident scene and created a general anxiety state. They felt unable to return to the workplace and were suffering severe distress. They are referred for specialist psychiatric and psychological evaluation and management and are given a diagnosis of post incident Post-Traumatic Stress Disorder (PTSD).

- a. If they required PTSD care and return to a normal work schedule and social function within 180 days. – **NOT PI**
- b. If they require ongoing intensive PTSD care OR were unable to return to a normal work role and schedule OR faced ongoing social dysfunction impacts at 180 days. – **PI**

6. Loss of hearing post acoustic trauma

Cumulative work-related noise exposure and hearing loss (medical definition) is not covered in the FPI metric definition as it does not result from an acute/single incident. An acute acoustic trauma during an incident with immediate loss of hearing and/or tinnitus may meet Permanent Impairment definition.

Potential outcomes:

- a. A Temporary Threshold Shift (TTS) that recovers with a return to baseline hearing and or normal hearing if no baseline measurement available. – **NOT PI**
- b. A measured loss, partial or complete, of hearing function (medical definition) at 180 days post incident. – **PI**

Clarification: Subsequent use of hearing aids does not negate a PI definition.

7. Injection of foreign material

A person is adjusting the nozzle of a pressurized paint gun and inadvertently sprays lead based paint into their right hand. It penetrates the skin and creates significant soft tissue damage. They required significant surgical intervention and the wound required a skin graft.

Potential outcomes:

- a. If the graft heals well and the person requires hand rehabilitation therapy but was able to return to a normal work schedule and full hand function within 180 days. – **NOT PI**
- b. If the person requires ongoing therapy or is unable to return to a normal work function due to loss of hand strength or range of movement within 180 days. – **PI**

8. Joint replacement or reconstruction post injury

A person is in a workplace incident where they fall off a ladder and sustains a pelvic fracture. They inform the employer that their specialist has recommended they have a hip replacement due to a combination of a pre-existing damage to the hip joint and the damage caused during the fall. A hip replacement does not automatically constitute a PI even though it could be considered an amputation. These are complex scenarios, and the two key determinants are:

- Work-relatedness – This will be based on professional medical judgement that the primary reason for the joint replacement was the work-related incident and not underlying degeneration. Joint replacement surgery is not a standard expectation of a single event trauma. Joint replacements are traditionally outcomes of chronic wear of the joint over time. Severe injuries may theoretically damage joint structures to such degree that they cannot be repaired, rather need replacement.
- Functional recovery – This injury would not be a PI if the person had a successful return to work and other functional recovery within 180 days.

Potential outcomes:

- a. If it was determined as work related and the hip was reconstructed or replaced and returned to full functionality within 180 days. – **NOT PI**
- b. If it was determined to be work related and the hip was reconstructed or replaced but did not return to full functionality within 180 days. – **PI**

In these scenarios, companies are advised to obtain an independent medical professional opinion to determine if there is a causative connection between the injury and the stated need for a joint replacement.

FAQ

1. Why do the permanent impairment definitions refer to 180 days?

This is a flexibility provided to allow injured persons a normal healing time to recover back to full function.

All injuries have expected healing times. The healing time needed will depend on the severity of the injury, (degree of the tissue damage) the characteristics of the tissue(s), injured as well as personal health factors. The healing process of human tissue is generally completed to symptoms free, or achieved a new steady state, at the 180 days (6 month) period, which is why it is used as a default period for expected maximal medical improvement.

2. If a LWDC or RWDC case reaches 180 lost and/or restricted days from the date of injury, is this automatically a PI?

Most cases will be a PI. PI refers to the person's health and functional state as a result of an acute single work-related incident.

If a person is medically certified as unable to attend the workplace and/or needs modifications to their work tasks or work place, there is a logical link to permanent impairment if this is in excess of 180 days. Within 180 days a state of maximum medical improvement is likely to have been achieved. If a company believes other factors are involved they should seek advice from a suitable medical professional as to whether further improvements back to previous function are deemed likely or if the situation meets PI criteria.

3. If an individual was a professional driver and was unable to come back to driving but could work in another role, would this qualify as a PI?

PI is a deliberate shift away from attendance or not at the workplace, and refers to the person's own health and return to previous function state.

- a. Where a person is temporarily prevented from driving for medical reasons but is able to resume within 180 days - **NOT PI**
- b. If a person had an impairment due to a workplace injury that required the removal of their previous medical certification for driving past 180 days, then this would be considered a permanent impairment. An ongoing inability to be certified for driving to the standards required for their previous role implies an impact to their whole person function – **PI**

This question relates to a professional driver, but the same philosophy can be applied to other disciplines or job roles with specific fitness to work criteria such as commercial divers, offshore workers and any onshore roles that are deemed safety critical and have specific medical fitness standards.

4. Is post traumatic stress disorder (PTSD) an injury or an illness?

Under FPI definitions PTSD is considered an injury arising from a singular workplace event that created a psychological trauma.

This is consistent with the accepted medical definitions set by the American Psychiatric Association under the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition. PTSD is a complex condition and the diagnosis should be made by a specialist psychiatrist or equivalently certified health professional.

5. If PTSD care was in the form of medication past the 180 days but the person was deemed fully functional on the medication, would it still be a PI?

For all complex cases specialist medical opinion on current state of impairment is advised. PI definitions are focused on the functional recovery of a person post incident.

- a. If the person is able to resume their previous role within 180 days, as the specialist opinion was that the person was stable and only required a maintenance dose of a medication to support general mental health but has returned to otherwise normal function AND the medications used are not a deemed safety risk to their role and are acceptable under the company's drug and alcohol policy – **NOT PI**
- b. If the person is unable to resume their previous role within 180 days, as the specialist opinion was that the person was still not at a state of normal function and still required ongoing medication(s) essential for maintaining any function after 180 days (i.e. person is at high risk of crisis relapse) - **PI**
- c. If the person is unable to resume previous role within 180 days, as the medications required by their specialist impact the safety of them performing their role, and/or are deemed unacceptable under the company drug and alcohol policy, the required medications are the barrier to resuming role - **PI**

6. If an individual requires long-term medication as a result of a physical injury past the 180 days, is that a PI? (e.g., burn, anti-seizure, pain medication)

As per question 5, for all complex cases specialist medical opinion on current state of impairment is advised. PI definitions are focused on the functional recovery of a person post incident.

- a. If the person is able to resume their previous role within 180 days as the specialist opinion was that the person was stable and only required a maintenance dose of a medication to support general mental health but has returned to otherwise normal function AND the medications used are not a deemed safety risk to their role and acceptable under the company's drug and alcohol policy – **NOT PI**.
- b. If the person is unable to resume their previous role within 180 days as the specialist opinion was that the person was still not at a state of normal function and still at risk of relapse/deterioration and required ongoing medication(s) that were essential for maintaining any function after 180 days (i.e. person is at high risk of condition relapse) - **PI**.
- c. If the person is unable to resume their previous role within 180 days as the medications required by their specialist impact the safety of them performing their role and/or are deemed unacceptable under the company drug and alcohol policy the required medications are the barrier to resuming role – **PI**.

7. Can incident witnesses and responders become PI cases even if they suffered no physical harm?

Yes. Witnesses and responders to workplace events can have significant psychological trauma. It is common for witnesses and responders to have a period of emotional distress after a major incident. Most will have a full recovery. A minority of people may go on to develop a mental health condition such as PTSD.

The difficulties of tracking these cases is recognised and it is not an expectation that companies proactively follow up all witnesses and responders to an incident. If witnesses, responders or their employers notify the company of significant, ongoing emotional distress or other functional impact post-incident it is recommended they are tracked for functional recovery. They would only become a reportable PI case if specialist opinion was that impairment persists beyond 180 days and was directly related to their involvement in the incident.

See questions 4 and 5 for further clarification.

8. How do I obtain injury and PI information from contractors or personnel who have left their employing organization or are otherwise lost to follow-up?

Companies are advised to stipulate this as a contractual requirement to allow for safety statistics reporting purposes during the scope of work. International privacy and medical confidentiality laws allow for use of certain data such as general status updates for legitimate business and legislative reporting purposes. Where people are lost to follow-up, companies are advised to gain specialist medical opinion on the known injuries and whether they would likely have led to a PI outcome or not. In cases where there is ongoing medical insurance support information may be obtained with the consent of the individual.

9. What if a person is expected to fully recover “181 days” after injury due to a delay in receiving care or other reasons

180 days is a threshold set against medical models and to aid IOGP reporting consistency. Companies are advised to use reason and discretion in exceptional cases where a small extension of time may be required to achieve a full functional recovery status.

10. Would a case where a person broke their leg, suffered a Deep Vein Thrombosis (DVT), and then died be considered a work related fatality?

For all complex cases specialist medical opinion is advised.

The fatality metric is a death as a result of a work-related incident. In this example the answer is possibly yes if the medical opinion is that there is a direct linkage of the death to the incident in that:

- a. The death occurred within 180 days post incident AND
- b. The DVT condition was directly the causal factor in the death AND
- c. The DVT primarily arose due to the injury

If all criteria are met this should be reported as a work related fatality.

11. What is the scope of reporting?

The scope of reporting is the same for employee and contractor FPI as for other IOGP safety performance metrics and follows the same work-relatedness criteria. See Section 3.

12. Are 3rd party FPI reportable to IOGP?

Companies are invited to submit information on 3rd party FPI to IOGP where the information is available. If the information is not available or is incomplete, then this is not a requirement.

13. Are near miss FPI reportable to IOGP?

No. IOGP welcomes the opportunity for narratives to be submitted in the same way as high potential events, but there is no specific metric for near miss FPI at this time.

14. Why are permanent impairments from chronic exposures not included?

The metric definitions are set as injuries arising from an identified single incident. The outcomes of acute exposures are considered under the FPI metric. Chronic exposures are generally considered occupational illnesses which are not included in the scope of IOGP reporting for lagging indicator metrics, which cover injury only.

15. How is a potential/near miss FPI different from a high potential event?

A high potential event is an event which could have, under slightly different circumstances, realistically resulted in a fatal incident. A high potential event could be both an actual PI and a potential fatality.

- a. Actual FPI: An incident that results in a fatality or permanent impairment
- b. Potential FPI: An incident that results in an injury (first aid and recordable) that could have realistically resulted in a fatality or permanent impairment
- c. Near Miss FPI: An event that could have realistically resulted in a fatality or permanent impairment where there was no actual injury.

Note: individual company definitions may differ to the IOGP definition for High Potential Event.

Note: there may be some overlap between a high potential event and a potential/near miss FPI.

16. If an event resulted in more than one permanent impairment injury, e.g., due to meeting the criteria of burns as well as internal organ damage, do both need to be recorded or only the main one?

If the injury outcomes to a person meet one or more PI criteria the injuries are counted as a single PI case.

17. How to navigate through medical information confidentiality?

The FPI metric only requires reporting of anonymised data. There is no need to exchange names, dates of birth or other personal identifiers. Communications on IP status between a company and a contractor can use non personal identifiers that ensure the correct IP and location of incident are referenced. Most jurisdictions have a duty on employers to ensure employees receive appropriate care and support after a work place incident.

18. Did IOGP look at Worker's Compensation as a comparison for permanent impairment?

Worker's compensation schemes are highly variable and set by local legislation. The IOGP FPI definition is deliberately not directly linked to any legislation or injury compensation system. All injuries that meet the PI definition criteria should be considered as PIs, independent of their worker's compensation claim process or outcome. FPI is a safety reporting metric only.

19. How will the metric be used?

The intention of the metric is to extract learning so that IOGP members can focus on identification and prevention to improve our safety performance related to the highest risk activities. We would hope that this becomes a standard metric that is used across the industry to drive improvement in safety performance. In addition, this metric can be used as part of the safety performance data evaluated in contractor management.

20. What is considered as loss of vision/hearing/smell resulting in PI?

Sensory function loss cases will be complex and require a review and opinion of a medical specialist in the relevant field on a case-by-case basis. They will need to assess functional change pre and post incident and consider the impact to the IP's personal life as a whole person function assessment. These cases may also require an occupational health specialist's evaluation of the sensory loss impacts on their safety to perform their previous role against the specific fitness to work criteria.

21. Could a person suffer two PI incidents?

Yes, an unfortunate person may have a series of permanent impairment incidents. A PI case report is associated with a single incident. A new permanent impairment report will only be determined if a separate, new incident occurs. The person's functional change will be a comparison of the new incident outcome against the baseline function immediately prior to the second incident. If the second incident creates an additional impairment of function compared to the established baseline state established after the first incident, this would be a second permanent impairment injury.

Examples:

- a. If a person suffered an amputation of the complete left hand – **PI**. If they returned to work and then suffered a second injury with crush of left arm with further full amputation of the limb it would be a second PI. This is because they suffered further impairment compared with their pre-incident status.
- b. A wheelchair bound person had an incident at work due to a structural failure of a ramp and they fell out of the chair during the ramp collapse. On medical review they are found to have fractured their left wrist and bruised their back. The wrist recovers well with plaster and the bruised area in the spine also recovers with no change in the functional status of their legs or ongoing pain.
NOT PI because the person remains wheelchair bound but this was their status pre-incident.

22. At what point would you call scarring disfigurement or change to physical appearance?

All such injuries are reviewed on a case-by-case basis and take into account the individual circumstances and the judgement of their treating medical professional. These assessments will likely have a linked psychological assessment as to the level of disfigurement perceived by the injured person and the level of psychological distress and social dysfunction this creates. If the company considers claimed disfigurement is out of proportion to the injury, a second opinion is advised.

23. How are stop-start treatments considered from a reporting perspective?

Refer to the philosophy of question 9. There will be cases where additional treatments are required after the 180 days due to ongoing definitive care and/or other factors. For example:

- a. The removal of orthopaedic screws may occur some months post injury, symptoms may be irritating to the person, but not impairing of their function. In these instances, we encourage companies to use reason and discretion. As long as the medical opinion is the person is expected to have, or has full functional recovery - **NOT PI**.
- b. Back injury with ongoing pain and/or restricted function recommended back surgery at 180 days or beyond. Low likelihood of full resolution of symptoms and/or regaining of full function - **PI**.

For all complex cases specialist medical opinion is advised.

24. Are secondary conditions considered as part of the PI?

The criteria for PI considers whole person function.

- a. If the medical opinion is that the person's functional impairments including psychological state were pre-existing and the current lack of functional status has not arisen, nor been significantly impacted by the incident and physical injury - **NOT PI**.
- b. Reactive mood disorders and/or chronic pain are commonly described outcomes post injury. If at 180 days the person has apparently recovered from the physical injury anatomically but is still certified as suffering psychological, social, or other functional impact - **PI**.

As per question 10, to meet PI reporting criteria the company should seek specialist medical opinion to determine if the secondary condition was clearly linked through a chain of events to the incident. If the company considers a person has suffered a secondary outcome due to gross medical negligence, legal advice should be sought.

25. How would PI for acute acoustic trauma be determined if there is no baseline hearing test to compare to?

Refer to Example Section 4.6.

26. Could a person suffer two PI incidents?

Yes, a person may have a series of permanent impairment incidents. A new permanent impairment will only be determined as a comparison of the new incident outcome against the baseline function immediately prior to the incident. If they had a second incident that creates an additional impairment of function compared to the newly established baseline state this would be a second permanent impairment injury. The following fictional examples will help clarify:

- If a person suffered an amputation of the complete left hand – **PI**.
- If they returned to work and then suffered a second injury with crush of left arm with further full amputation of the limb it would be a second PI. This is because they suffered further impairment compared with their pre-incident status.
- A wheelchair bound person had an incident at work due to a structural failure of a ramp and they fell out of the chair during the ramp collapse. On medical review they are found to have fractured their left wrist and bruised their back. The wrist recovers well with plaster and the bruised area in the spine also recovers with no change in the functional status of their legs or ongoing pain.
NOT PI because the person remains wheelchair bound but this was their status pre-incident.

An up-to-date list of FAQs is available on the IOGP website at <https://www.iogp.org/fpi>.

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