AZSPU

Incident Investigation and Reporting

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1 INTRODUCTION

1.1 PURPOSE

This document describes the procedures employed for investigating incidents related to BP activities in the Azerbaijan Strategic Performance Unit (AzSPU) and in the preparation of associated reports.

Note: The prime objectives of such an investigation are to establish the causes, analyze them and make recommendations to prevent recurrence of a similar incident. It is not to attribute blame.

1.2 SCOPE

This process is to be used for all types of incidents, including:

- Fatalities
- Workplace injuries and illness
- Security breaches
- Spills and leaks
- Vehicle accidents
- Near misses with G+ potential severity (refer to Severity Matrices in Appendices G-J)
- Process safety incidents e.g. overpressure of design plant, excursion from design temperature, formation of hydrate plugs, misdirection of process fluids, ESD or pressure safety valves lifting (whether to flare or vent)
- Plant/technical integrity incidents i.e any incident where the root cause would be addressed by the IM Standard and there is actual or potential harm to people or the environment, including loss of primary containment or failure of an engineered system.

All events resulting in workplace injure, industrial illness, damage to assets and environmental harm (together with near miss events in these categories) are to be reported immediately to the supervisor and / or the BP representative.

1.3 CONTRACTOR INVESTIGATIONS

Contractor management may wish to conduct a separate internal incident investigation for serious incidents involving contractor employees. BP policy is to respect the wishes of contractors, and to encourage completion of a joint investigation in a cooperative manner with representatives of both BP and affected contractors.

For incidents that occur at BP controlled sites or activities the investigation shall should be led by BP representative.

2 RESPONSIBILITIES

2.1 ALL PERSONNEL

Any person involved in or observing an accident or near miss must immediately report it to his / her supervisor or BP Representative.

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2.2 SPU LEADER (SPUL)

SPU Leader is responsible and accountable for ensuring that this procedure is implemented in the Business Unit and for reporting major incidents and HiPos to the corporation.

SPU Leader is responsible for

- Notification of a Major Incident to the appropriate Group Vice President through personal conversation within 8 hours
- Issue of MIA/HiPo notification
- Is the "owner" of all major incidents in AzSPU

2.3 VICE PRESIDENT (VP) OR NOMINATED PERFORMANCE UNIT LEADER (PUL)

Vice President (VP) or nominated PUL is responsible and accountable for:

- Ensuring that this procedure is implemented in their performance units
- Reporting MIA/HiPo/DAFWC incidents to SPU leader
- Owner of DAFWC and HiPo severity incidents in their respective PUs

2.4 SITE MANAGER

Site Manager is responsible to estimate the worst **probable** (not imaginable) outcome of the particular incident and make an initial assessment of the severity of an incident and determine the level of management that should own the investigation process. (Refer to Section 4.1)

Site Managers are responsible for:

- Initial Reporting of the Iincident
- Preservation of the incident scene (Preserve physical data and prevent destruction/alteration) and early collection of material evidence, making photographs etc.
- Making an initial assessment of the severity of an incident
- Requesting Drugs and Alcohol testing whenever potential probability for substance abuse is under question
- Obtaining initial witness statements (eyewitnesses) while incident details are still fresh
- Instigating the appropriate investigation process
- Assuming ownership of minor incidents on his site
- Accepting the Incident Report and allocating the resultant actions.
- Ensuring that all equipment is verified to be "fit for purpose" after a significant incident or event prior to returning to service

2.5 INCIDENT OWNER

The Owner is the individual who requested the Incident Investigation to be performed and has the responsibility for the investigation through to closeout of the remedial actions. The level of the Owner must commensurate with the severity or potential severity of the incident and should be:

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- SPU Leader (SPUL) for major incidents in AzSPU – Traction **actual** severity A-E
- Vice President (VP) or nominated PUL is Owner for DAFWC's or HiPo (**potential** severity A-E).
- Site/Facility/Installation Manager Traction **actual or potential** incident severity Levels F-H.

The Owner shall:

- Appoint the Investigation Team
- Draw up the terms of reference for the investigation
- Ensure investigation team is provided with all resources required for investigation
- Provide a business overview on actions prior to entry into the tracking system and shall review each action item for confidentiality
- Review the selection of the Responsible Party for handling the action items
- Ensure that all new or reassigned action items are entered in to the Accident and Incident database (Traction) under the appropriate category
- Review progress reports to ensure that all outstanding action items are being completed within specified deadlines
- Take appropriate action with the Responsible Party if action items are not being completed within the required deadline.

2.6 INVESTIGATOR / INVESTIGATION TEAM

The Investigator/Investigation Team will be appointed by the Investigation Owner (Site Management, VP, PUL or SPUL) depending on severity of incident and is responsible for:

- Investigating the circumstances leading to the event
- Making recommendations to prevent recurrence
- Ensuring that the written report is completed.
- Ensuring the MIA's, HiPo's and DAFWC's report is handed over to the "owner"

The Investigation Team shall:

- Establish the situation before the incident
- Determine what happen during the incident
- Determine the critical factors
- Determine the immediate and system causes
- Determine actions to prevent recurrence of a similar incident
- Produce the incident report

Incident report should contain information described in section 4.11.2

In order to achieve these objectives the Investigation Team is required to seek any expert advice that might enable it to provide the most informed opinion.

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2.7 APPROVER

The Approver of the Incident report is the "Owner" of the incident and he/she is responsible for agreeing actions with the Investigation Team who then enter actions into Traction. If the Owner is not satisfied that the actions recommended fully address the immediate and system causes of the incident, he should instruct the Investigation Team to seek further advice and formulate further actions before he approves the incident report and actions in Traction.
The Approver is responsible for assuring the quality of the investigation report and the data entered into the Accident and Incident Reporting database (Traction).

Note: The"Owner" will normally undertake the role of Approver. MIAs will be approved by the SPUL. HiPos and DAFWCs will be approved by the VP or nominated PUL

The Approver shall:

- Review the Incident Report to ensure an accurate document with proper root cause analysis
- Ensure that:
  - appropriate causes have been identified
  - action items will effectively mitigate the hazards
  - action items are clear and provide the Responsible Party with adequate details to implement the action item
- Review the selection of the Responsible Party for handling the action item in order to ensure that the action item has been assigned to an individual or job position with sufficient authority and expertise to complete the action
- Approve the report in the Accident and Incident database (Traction)

2.8 INCIDENT REPORT ORIGINATOR

The Incident Report Originator is responsible for entering the Incident Report into the Accident and Incident database.

Note: This will normally be a nominated Traction operator at the site of the incident. This needs to be done following Traction requirements as below:

MIA/HiPo notifications should be placed into MIA/HiPo database.

MIA/HiPo database is located at: http://miahipo.bpweb.bp.com

Type of Incident	***Recording Timescale***	***Recording System***
Major Incidents (MIAs) Levels A-D	<24 hours	MIA/HiPo database
	<5 days	Traction
Major Incidents (MIAs) Level E – Health and Safety	<24 hours	MIA/HiPo database
	<5 days	Traction
Major Incidents (MIAs) Level E – Other	<24 hours	MIA/HiPo database
	<5 days	Traction
High Potential Incidents (HiPos)	<24 hours or on identification	MIA/HiPo database

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	<5 days	Traction
Any BP Employee Fatality in the BP Work Environment	<24 hours	MIA/HiPo database
	<5 days	Traction
Any BP Contractor Fatality in the BP Work Environment	<24 hours	MIA/HiPo database
	<5 days	Traction
Any Third Party Fatality in the BP Work Environment	<24 hours	MIA/HiPo database
	<5 days	Traction
Any non work-related Fatality in the BP Work Environment	<24 hours	MIA/HiPo database
	<5 days	Traction
Loss of Primary Containment (LOPC)/uncontrolled release	<5 days	Traction
Day Away from Work Case-Employee	<5 days	Traction
Day Away from Work Case-Contractor	<5 days	Traction
Restricted Work/Job Transfer-Employee	<5 days	Traction
Restricted Work/Job Transfer-Contractor	<5 days	Traction
Medical Treatment-Employee	<5 days	Traction
Medical Treatment-Contractor	<5 days	Traction
Vehicle Accidents-Employee	<5 days	Traction
Vehicle Accidents-Contractor	<5 days	Traction
Spills ≥1 bbl	<5 days	Traction
Fires	<5 days	Traction
Explosions	<5 days	Traction

Note: The requirement of Group Security Standard is that Fraud incidents are not reported through Traction, but should be reported in line with BP's Fraud Reporting Instruction, which can be found at:

HTTP://FCANDA.BPWEB.BP.COM/DEFAULT.ASP?P=2062&MI=4719

All other type of security incidents should be recorded in Traction system.

2.9 RESPONSIBLE PARTY

The Responsible Party is the individual who has been assigned an action item arising from an Owner's Incident Investigation. The Responsible Party must have sufficient authority and expertise to carry out the action.

The Responsible Party shall:

- Review validity of assignments of an action item with the Owner, if and when they consider the assignment inappropriate
- Take accountability for ensuring that all of his/her action items are completed by the target date
- Take appropriate action with the Owner if the action items are not being completed within the desired deadline
- Ensure that all comments against their action items, updates of the status of their action items and closure of their action items when completed are entered into the Traction database.
- Ensure actions are approved by the Owner and are closed in Traction.

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2.10 CENTRAL HS&ER MANAGER

Central HS&ER Manager is responsible for:

- Maintaining this procedure
- Providing support to the respective Manager in setting up the Investigation Team.

3 CORPORATE REPORTING & NOTIFICATION REQUIREMENTS

The following paragraphs describe incident notification requirements. See also section 3.3 and Table 3.1 Incident Notification Flowchart.

3.1 SPECIFIC RESPONSIBILITIES

All incidents shall be reported immediately to the appropriate supervisor or line manager and through the line management to the Site Manager/OIM. The Site Manager/OIM shall ensure that the scene of the incident is made safe and then protected from disturbance.

3.1.1 Site Manager/OIM

The Site Manager/OIM shall immediately verbally notify the Operations/Asset Manager of any MIA, HiPo or DAFWC (Level F – Health and Safety) incidents.

The Site Manager/OIM shall verbally notify the Operations/Asset Manager of all Level F (other than Level F - H&S) and Level G at the earliest opportunity, but within 8 hours.

The Site Manager/OIM shall verbally notify the Operations/Asset Manager of all Level H incidents at the earliest opportunity, but within 24 hours.

3.1.2 Operations/Asset Manager

Operations/Asset Manager shall notify the PUL immediately of MIA or HiPo incidents.

The Operations/Asset Manager shall notify the PUL of DAFWC and all Level F incidents at the earliest opportunity, but within 8 hours.

The Operations/Asset Manager shall notify the PUL of Level G – H&S incidents at the earliest opportunity, but within 24 hours.

The Operations/Asset Manager should exercise their best judgment whether further notification is required for all other incidents.

3.1.3 Performance Unit Leader (PUL)

The PUL shall immediately notify the line Vice President of MIA and HiPo incidents.

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The PUL or nominee shall at the earliest opportunity, but within 8 hours send an AzSPU email notification of MIA and HiPo incidents to "G EUBAK MIA/HiPo Notification" distribution list.

The PUL shall notify line Vice President of DAFWC and all Level F incidents at the earliest opportunity, but within 24 hours.

The PUL should exercise their best judgment whether further notification is required for Level G – H&S incidents.

3.1.4 Vice President (VP)

The VP shall immediately notify the Strategic Performance Unit Leader (SPUL) of MIA and HiPo incidents.

The VP shall notify SPUL of Level G – H&S incidents (including DAFWC) at the earliest opportunity, but within 24 hours.

The VP should exercise their best judgment whether further notification is required for Level F (other than Level F - H&S) incidents.

3.1.5 Strategic Performance Unit Leader (SPUL)

The SPUL shall verbally notify the Group Vice President of an MIA and HiPo incidents at the earliest opportunity but within 8 hours.

The initial verbal MIA and HiPo notification shall be confirmed with global email notification within 8 hours for Level A-D and Level E – H&S incidents and within 24 hours for HiPo and all Level E (other than H&S) by using the pro-forma reports in *Appendix A* for MIA and *Appendix B* for HiPo.

The SPUL should exercise their best judgment whether further notification is required for Level F - H&S incidents.

Information Required

The notifications should provide the following information:

- Type of occurrence (fire, explosion, injury, spill, etc)
- Site / location
- Date and time of incident
- Brief description of the event
- Actual severity (Level A-H)
- Injury details
- Damage

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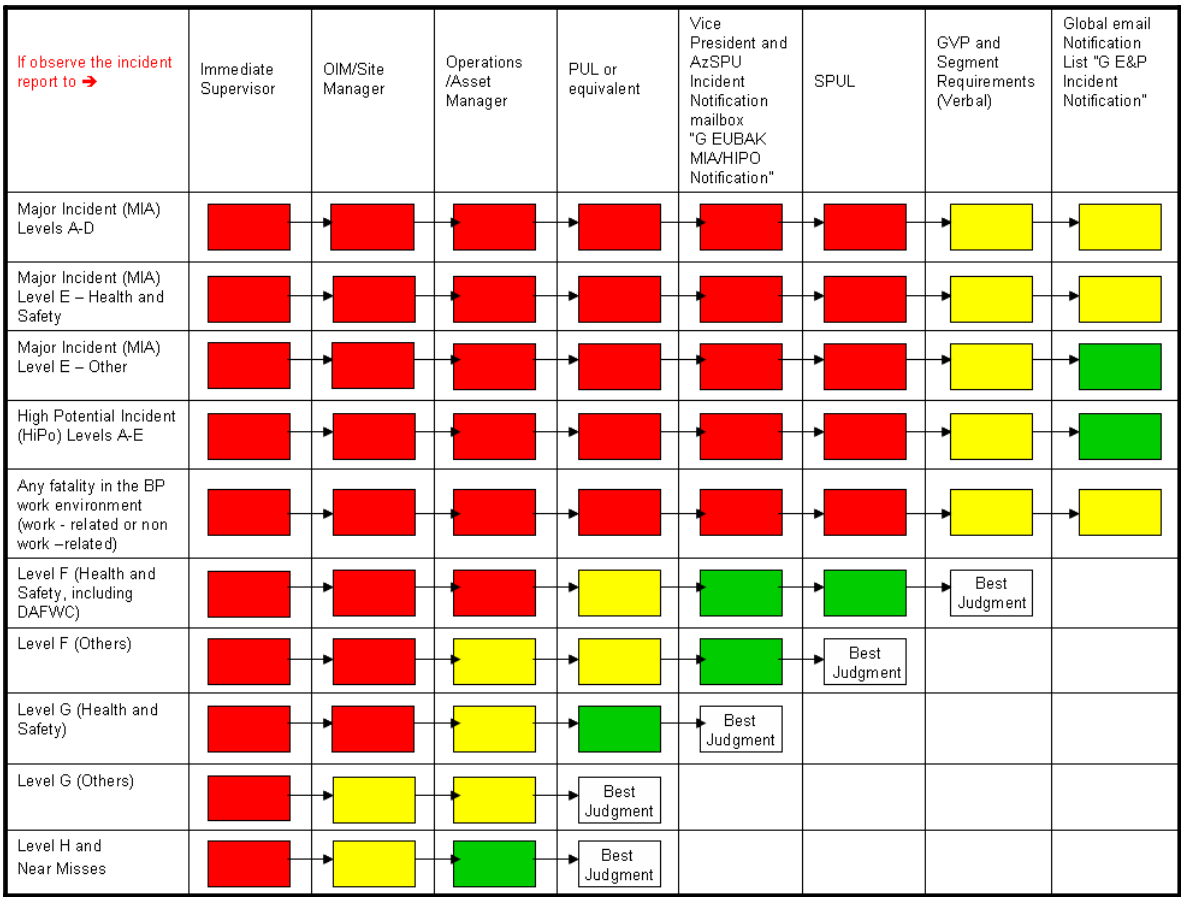
- Oil or chemical spilled
- Immediate corrective action taken to prevent further loss
- Contact name (person supplying information) and telephone number.

3.2 Incident Notification Flow

Figure 3.1 describes the AzSPU incident notification flowchart.

Figure 3-1 Incident Notification Flowchart



Note 1: Figure 3-1 specifies the minimum incident notification requirements which must be followed at all times, however more stringent notification requirements may be exercised if deemed necessary.

Note 2: Details on the description of the actual and potential severities of accidents can be found in Severity Matrices in Appendices G-J.

Note 3: All Major incidents (A-E levels), HiPos and certain security sensitive incidents (e.g illegal taps) shall initially be sent to “G EUBAK MIA/HiPo Notification”, and shall not be distributed any further without prior SPUL agreement. AzSPU outside distribution of Lessons Learned One-Pagers, HiPlus and similar documents should not go from individual assets but from SPUL office.

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Note 4: All F-H severity incidents (excluding HiPos and security sensitive incidents) should be distributed to “G EUBAK AzSPU Incident”.

Note 5: More details on Illegal Tap Incidents Notification requirements for Exports PU are described in Appendix K

Note 6: Details on external notification requirements for Onshore Operations can be found in Appendix L

Note 7: For external notification of material release to the environment shall follow the “Azerbaijan SPU Internal & External Material Release Reporting & Notification Procedure AZSPU-HSSE-DOC-00075-2” shall be followed.

Note 8: If for any reason any line position is unavailable (e.g vacation, unreachable) the delegatee shall assume full responsibility to continue the line notification process.

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4 THE INVESTIGATION PROCESS

4.1 DETERMINING INCIDENT SEVERITY

The processes used to investigate an incident always follow the same principles. However, the make up of the Investigation Team, and the investigation process followed, is determined by the potential severity of the incident.

The first stage of the process is therefore to make an estimate of the most serious **probable** outcome of the incident in order to determine the process to be followed. This will be done by the Site Manager/OIM.

Note: Potential Incident severity is based upon the most serious **probable** outcome. For example:

If a man cuts his finger with a knife, the most likely outcome of the incident is a cut finger and the potential severity of the incident should be judged on that basis

but...

If a man cuts his finger on a power saw, the most serious probable outcome could easily have been an amputation and the potential severity of the incident is therefore judged to be much greater.

Additionally the **Figure 4.1** below can assist in assessment of the potential severity of incident. Refer to Appendices G-J for Actual Severity matrices.

Figure 4.1 Guidelines to Assess Potential Severity

Assessment of Potential Severity	
Intent: That the potential Severity classification of an incident or unsafe/unhealthy condition is based on the most serious probable outcome. **Ask: Under different circumstances, could the consequence of the Incident or Unsafe/Unhealthy Condition have been more serious for the Health and Safety of People, the Environment, Business Impact, or Privilege to Operate?**	
Different circumstances include but are not limited to: - Time of day - Weather (e.g. wind direction or strength) - Presence or absence of people going about their normal routine/business - Exceptional intervention of people - Similar activity with similar controls carried out by the same operation elsewhere	
It shall ALWAYS be assumed that:	
- A source of ignition could have been present, even if the likelihood is low. - If someone or something was struck with enough energy to injure them or break the equipment, then this outcome could have happened, even if there is no actual injury.	
Be cautious: Initially consider the most serious probable outcome/consequence that might have happened.	
- Consult your HSSE team for advice if the probable serious probable outcome/ consequence seem extremely unlikely. (e.g., a wasp sting can occasionally be fatal for someone allergic to wasp stings, but a first aid case is a much more foreseeable consequence).	

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4.1.1 Major Incident (Definition)

Major incident is an incident, including a security incident, involving any one of the following:

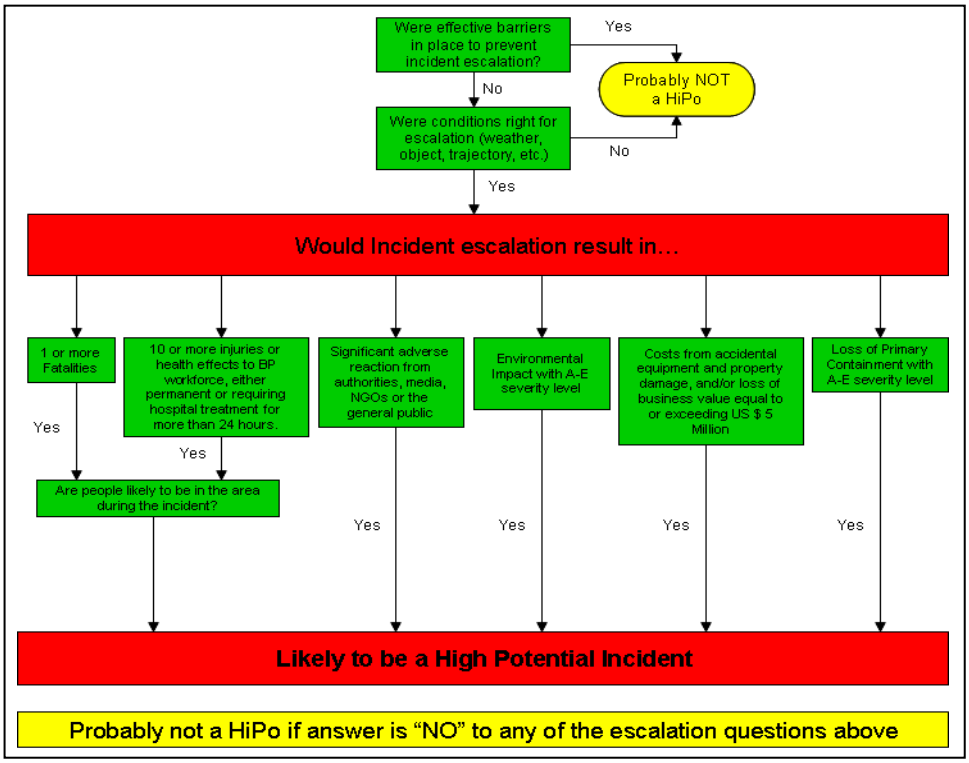
- 1 or more fatalities associated with BP operations
- 10 or more injuries or health effects to BP workforce, either permanent or requiring hospital treatment for more than 24 hours.
- Significant adverse reaction from authorities, media, NGOs or the general public
- Costs from accidental equipment and property damage, and/or loss of business value equal to or exceeding US $ 5 Million
- Environmental Impact with A-E severity level (refer to Appendix G)
- Loss of Primary Containment with A-E severity level (refer to Appendix I-J)

4.1.2 High Potential Incident (HiPo) Determination

A High Potential Incident (HiPo) is an Incident or Unsafe/Unhealthy Condition or near miss, including a security incident, where the most serious probable outcome is a Major Incident.

Figure 4-2 below provided to facilitate the process of decision making while determining the HiPo relevance of the incident. Many HiPos are not identified at the time of the incident and it is only after investigation that true the severity of the probable outcome becomes clear. If, after investigation, an incident is found to fit these definitions, it should be reported as a HiPo, even if it is outside the nominated reporting timeframe, or does not explicitly meet these definitions. This requires a HiPo to be posted in the MIA/HiPo Database system and the severity in the Traction Potential Risk Matrix to be increased to level A-E. (Refer to severity matrices in Appendices G -J)

Figure 4-2 - HiPo Incident Determination Flowchart



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4.2 TRACTION

Traction is a software tool designed to provide a single data entry system for all Health, Safety, Environmental, Property Damage, Reputation and Business Interruption/Unit Outage incidents. Traction also offers an actual and potential severity matrix that allows the user to assess the incident severity on a consistent basis.

4.3 ESTABLISH INVESTIGATION TEAM

The responsibility to establish the Investigation Team is with the initiating PUL VP and SPUL. An Owner for the investigation will be designated.

The Owner shall initiate the investigation by issuing “Terms of Reference” to the Investigation Team Leader.

4.4 TERMS OF REFERENCE

Terms of Reference detail the requirements of the investigation and give official status to the investigation. In particular they will:

- Identify references
- Define the scope of work
- List the team members
- Provide objectives/guidance
- Indicate any requirements for intermediate reporting.

Note: The investigation shall remain strictly within the Terms of Reference and deviate from them only after discussion with the Owner. A model Terms of Reference template is provided in *Appendix* C

Copies of the Terms of Reference shall be provided to the Investigation Team and the Site Manager.

The Team Leader of the Investigating Team shall discuss the Terms of Reference with the Owner to ensure that he is fully briefed.

4.5 TEAM SELECTION

Incident investigation teams are determined according to the type of incident. Generally, the team will consist of the following:

- A member designated as the Investigation Team Leader with seniority dependent on severity of the incident
- At least one person knowledgeable in the process involved, e.g. operations or technical engineer
- A contract employee, contractor management representative, and / or HSE representative if the incident involved the work of a contractor
- A person knowledgeable in incident investigation techniques and system cause analysis – Root Cause Specialist
- Other persons, as needed, with appropriate knowledge and experience to thoroughly investigate and analyze the incident, i.e., may include persons from other assets or within the industry as a third party representative in major investigations.

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Note: Major Incident investigations require the Team Leader and at least one other member to be from a different Performance Unit (e.g. Offshore or Onshore Operations BUs) and be of sufficient seniority in the organization, e.g. ALT Direct Report or above. Additionally the Root Cause Specialist should a person trained in the BP Group Master Root Cause Specialist (MRCS).

Incidents with fatalities initiate the Group Fatal Accident investigation which requires an external BUL/SPUL and MRCS from another SPU to lead the process.

DAFWC and HiPo investigations require the Team Leader and at least one other member from a different Performance Unit (e.g. external to "Exports" or "Azeri") and be of sufficient seniority in the organization e.g. ALT Direct Report or above.

4.6 Team Mobilization

All team members shall be mobilized within 48 hours of the incident.

4.7 Conduct Investigation

The Team Leader is responsible for completing the investigation.

4.7.1 Scope and Objectives

The investigation shall:

- Establish the facts surrounding the incident
- Review the application of management systems and management practices and their impact
- Identify critical factors, immediate and system causes and make recommendations to prevent recurrence.

4.8 Fact Finding

Information on the incident can be obtained by collecting information from people, positions, parts and papers – PPPP technique.

Interviews with witnesses shall be carried out as soon as possible after the incident; while the incident is fresh in their minds and before too much discussion has taken place with their colleagues.

Witnesses should be interviewed individually, so that they are not interrupted or questioned by others involved. One member of the team shall interview the witness and a second record the interview. The interviewee must sign interview transcripts.

Checklists are useful in the early stages to keep the full range of inquiry in mind, but they cannot cover all possible aspects of an investigation, nor can they follow all individual leads back to system causal factors. To ensure that all facts are uncovered, ask the broad "who, what, where, when, why and how" open-ended questions.

4.9 Establish the Sequence of Events

As the investigation progresses, the investigators should begin to identify the sequence of events and concentrate efforts on increasing their knowledge in areas of uncertainty.

As the extent of physical factors involved in an incident becomes clear, the investigators should shift the emphasis of their investigation and questioning to the system causes and the reasons for people's actions.

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Establish a chronology of events by date, time and place. The construction of a diagram showing the connections between the various events and conditions leading up to the incident, called Sequence of Events or timeline, is a useful technique in the investigation process, especially for more complex incidents.

4.10 Establish and Analyze Findings

The findings of the investigation should establish the immediate and system causes of the incident so that corrective measures can be taken to prevent future incidents.

4.10.1 Identify Critical Factors and Causes and Make Recommendations

The investigation process shall identify actions to prevent recurrence. This is achieved by addressing the substandard acts and conditions and by identifying and correcting the latent failures.

Not all causes can be completely eliminated and some may be eliminated only at prohibitive cost. Some recommendations will, therefore, be focused on reducing the risk to a tolerable level, while others will be focused on improving protective systems (the defenses) to limit the consequences.

At least one recommendation should be made for each finding.

Actions shall be ranked for order or priority as follows.

1. Requires immediate action before activity at the site resumes.
2. Must be completed to an agreed plan.
3. Should be considered but not a priority.

4.10.2 System Cause Analysis

All incident findings should be reviewed to determine the critical factors, immediate causes and system causes of the incident.

Identification of system causes of an incident may often reveal underlying management system failures that resulted in the incident occurring.

System Cause Analysis is a process for analyzing incidents to:

- Provide consistent and repeatable results
- Provide objective and not punitive results
- Provide final results from which system causes can be identified.
- Identify actions which can be taken to correct the cause and prevent a similar type incident

After examining all the critical factors involved in an incident and arriving at the system causes, a good check to use is to ask, “If these system causes were corrected, would this prevent the incident from happening again?” If the answer is no, further evaluation is needed.

4.10.3 Antecedent Behaviour Consequence Analysis (ABC Analysis)

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ABC Analysis is a technique for understanding why people intentionally behaved as they did and identifying how to change this type of behaviour for another desired behaviour.

It is not suggested that ABC analysis is used in all investigations – rather it should be invoked as required by investigation teams whenever they need a deeper understanding intentional behavioural factors.

ABC analysis should be performed once evidence gathering has been completed and critical factors have been identified and written. It is performed at the beginning of the analysis phase of the investigation and allows the investigator to reach a deeper understanding around why a person acted or behaved the way they did, so that investigator is in the best possible position to recommend appropriate corrective actions.

4.10.4 System Cause Analysis - Example

It is very easy to mistake an immediate cause for a system cause of an incident. As stated above, the system causes of an incident will often be a management system failure. The following example illustrates this point:

> *A spill occurred when an employee overflowed a fuel truck while loading it at the bulk fuel loading facility.*
>
> *The initial investigation revealed that the operator of the truck overestimated the amount of fuel required to fill the truck. By the time he realized he was running out of tank capacity, he couldn't reach the shutoff switch before the truck overflowed.*
>
> *The initial finding was that the operator of the fuel truck was inattentive. However further questioning of the driver and a survey of the scene revealed that the truck was being loaded from the top and the emergency shutoff switch for top loading was not functioning properly. This required the operator to climb down off of the truck and to enter the pump room to shut off the flow of fuel. The malfunctioning switch had been reported several weeks prior to the incident but had not yet been repaired.*

Note: One system cause of the incident was subsequently found to be a management system that allowed a critical component of an emergency shutdown system to remain in service while not functioning properly.

After arriving at one of the most obvious causes of the incident, it is important to ask, "Why?" In the case above, asking why the employee overflowed the tank resulted in the identification of the malfunctioning switch, and the need for a system to prioritize work requests so critical safety components are repaired as soon as possible.

The BP Comprehensive List of Causes Chart in *Appendix D* shall be used to determine system causes for all incident investigations.

Critical Factor: An event, action or condition contributing to the incident that, if eliminated would have either prevent the incident from happening or reduce its severity.

4.11 Compile Report

Note: Minor Incidents (severity level F to H) need only be reported through the Traction reporting system. Major and High Potential Incident Reports must follow the layout described. Incident Investigation Report should be completed in 30 days (GHSER

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requirement – Key Process 6 and Recommendation of BP Group Defined Operating Practice for Incident Investigation).

4.11.1 Records

A copy of all BP Major Investigation Reports shall be kept in the SPU files and in Corporate HSE files. The incident shall also be entered into the Accident and Incident Database (Traction). The original of the report will be kept in the files of the site or area in which the incident occurred for the life of the facility.

4.11.2 Report Outline

The report contents should adhere to the following outline:

Title Page: Includes title, location and date of the incident and date of the report.

Executive Summary: "High-level" summarized description of the incident, highlighting significant findings/ conclusions and referencing the investigating team's recommendations. The executive summary should be restricted to one page.

Table of Contents: A listing of the report contents and page numbers.

Terms of Reference: An example is attached in the *Appendix* C

Core report: Critical factors identified during investigation should be addressed clearly and specifically. Critical factors are those events which if eliminated would prevent the incident from occurring or significantly reduce the severity of the incident.

Incident Description: Describe the situation before the incident, what happened during the incident and actions taken after the incident. The questions who, what, where and when must be answered.

Incident Timeline: various events and conditions (including date and time) leading up to the incident. The timeline may extend to events and conditions after the incident to demonstrate the emergency response.

Discussion of the Evidence & Losses: This section should take the Leader through the logical discussion of the evidence that leads to the conclusion of immediate causes.

Immediate Causes: These are "symptoms" of the system causes and may be identified by utilizing the CLC Chart (*Appendix* D)

System Causes: Categorized as "System Causes" on the Comprehensive List of Causes Chart (*Appendix*-D), they are the "whys" of the immediate causes.

Recommendations to Prevent Recurrence: Review each of the immediate and system causes to develop recommended actions to address all identified risks. If causes and recommendations are related to other Controlled Documents and/or regulations, i.e., Traffic Regulations of Azerbaijan / Georgia, those documents should be referenced.

Signatories: After the report has been reviewed and agreed by the Owner, the Investigation Team Leader will sign the report as representative of the Investigation Team and the Owner will sign the report to signify acceptance of the findings and recommended actions on behalf of the Business Unit.

Note: At the initial stage all incident investigations must be marked "draft" and after completion of reviews and compilation of the final version marked "final". Upon receipt of comments and approval on draft incident investigations and issue of the final report draft versions will be destroyed.

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Appendices: **Appendix A – Initial Incident Report** - This initial report will be completed by the Incident Investigation Team. It is the primary information required to document the incident on Accident and Incident Reporting database (Traction).

Appendix B - Diagrams and Photographs - To correlated and illustrate locations and/or progressive locations of people, equipment, etc. that were influential in incident cause and/or prevention.

Appendix C - Documentation - This information is generally the most difficult to find, but the most objective. It is the primary reason why at least one team member must be knowledgeable of the process (operations / maintenance).

Supporting documentation of relevance to the overall report should be contained in this section. This should include statements from witnesses, photographs or drawings, copies of Work Permits, or other documents of importance. If equipment was damaged the details could be recorded in this section.

Appendix D - Interviews - Most information during investigation is obtained from people. They must be interviewed separately and as quickly as practical. The longer the interval between incident and interview, the more distorted the information becomes.

Interview statements should not be a verbatim record of each interview, but should summarize the information gained at each interview. The detailed interview notes may be appended to the report or archived as considered appropriate.

Note: At least one team member must be trained and competent in interviewing.

4.12 Non-Contributory Factors

The Team may find deficiencies when investigating an incident, which have no bearing on the incident or outcome. If recorded these must be clearly stated as such in the report.

4.13 Review with Management

4.13.1 BP Management

HiPo/DAFWC Investigation reports shall be reviewed with management including the event owner to confirm that the technical aspects are correct and the Terms of Reference have been met.

4.13.2 Contractors

Investigations involving contractor owned / operated worksites or equipment, located on BP operated areas, will be reviewed by BP and contractor management to obtain agreement on the report

However the essential element is that the report is agreed internally within BP and that management accepts the findings. Preferably these findings will not contradict any contractor investigation however if this does occur then the reasons for the discrepancy should be investigated.

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4.13.3 Agree with Owner

The basic causes and actions of all Incident Reports must be agreed with the Owner before the final 'approved' or signed off report is produced. Each action in the recommendations must have been assigned to a person accountable for the action, a target date for completion and a risk rating (low / medium/ high).

The Owner is responsible for making the actions, required completion date, and risk rating, known to the person accountable for the action and assuring timely completion).

4.14 ACTIONS

Recommended actions must state explicitly what is to be done, when and by whom. Before assigning actions Responsible Party must be consulted to agree a reasonable timescale for completion to avoid actions going unnecessarily overdue.

Traction contains three possible choice of priority when entering actions - these are listed below with their criteria:

4.14.1 Prioritization

The investigation process shall identify actions to prevent recurrence.

At least one recommendation should be made for each finding. The Investigation Team must consult whatever technical experts it feels may be necessary to determine possible actions.

Actions shall be ranked for order or priority as follows:

- H - Requires immediate action before activity at the site resumes
- M - Must be completed to an agreed plan
- L - Should be considered by the Owner but is not a priority

Note: the decision about the establishment of the target dates for the completion of the actions should be made and agreed by the Investigation Team and the Owner (e.g. PUL, Site/Installation Management) based on the levels of the priority prior to insertion into Traction system.

4.14.2 Owner

The Owner (as per section 2.5) shall allocate actions to a Responsible Party. The Owner and Responsible Party shall reach an understanding on the scope of the action and the time by which it is to be completed.

4.14.3 Responsible Party

The Responsible Party shall ensure that the action is closed out in the Action and Incident Data Base. An action will not be considered finalized until the database has been updated.

4.14.4 Close-Out of Actions and use of Traction system

Traction is the system BP uses globally to report all safety related incidents as well as Audits and Other events. Traction is a web based tool that enables BP to fulfill their commitment to openly report, investigate, analyze and document all health, safety, security and environmental incidents. It is expected that all BP reportable incidents that occur during the course of working activities will be entered into Traction.

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Each Performance Unit shall establish a process for tracking the close out of actions. The Managers directly accountable to the Performance Unit Leader shall do this on a monthly basis. The Performance Unit Leader shall be notified of the number of overdue actions each month. Actions resulting from Major Incidents, High Potential Incidents, Day Away From Work Cases and significant audits will be tracked to resolution at the SPU level in Traction. Actions resulting from minor incidents will be tracked by means of action tracking system operated at PU level.

All corrective actions from the final incident investigation report will be included into Traction system for further follow-up and completion.

4.15 Incident Report Originator

Each Performance Unit shall formally appoint Incident Report Originators who will be responsible for entering Incident Reports into the database and closing actions in the database when advised to do so by Responsible Parties.

5 REPORT DISTRIBUTION

All incident reports shall as minimum be copied to:

- The Owner
- PUL, VP and SPUL depending on severity of the incident
- The Site Manager (if he is not the Owner)
- Responsible Parties (i.e. those allocated remedial actions)
- The senior HSSE personnel of the BU or service unit
- Central HS&ER Manager (Major Incident and HiPo Reports as defined above only).

All Major incidents (A-E levels), HiPos and certain security sensitive incidents (e.g illegal taps) shall initially be sent to “G EUBAK MIA/HiPo Notification”, and shall not be distributed any further without prior SPUL agreement.

All F-H severity incidents (excluding HiPos and security sensitive incidents) should be distributed to “G EUBAK AzSPU Incident”.

6 DISTRIBUTION OF LESSONS LEARNED

The main objective of carrying out an incident investigation is to identify the causes of incidents and to prevent recurrence. In order to achieve the biggest benefit from the investigation, the lessons learned need to be distributed to other sites where a similar incident might occur

Two types of documents currently utilised in AzSPU can be used for distributing of lessons learned from accidents and incidents:

- AzSPU Lessons Learned One-Pager (example proforma LL One Pager can be found in Appendix M)
- Safety Flash document

Note: AzSPU Outside Distribution of Lessons Learned One-Pagers, HiPlus and similar documents should not go from individual assets but from SPUL office.

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7 STORAGE OF RECORDS

7.1 MAJOR INCIDENTS

The master copy of the investigation report must be retained on file by the Performance Unit and the copy sent to the Central HS&ER Manager and must be retained in the SPU HSE Department files.

7.2 MINOR INCIDENTS

When a site has access to the Traction, the report in the database is sufficient record of the incident.

When a site does not have access to the Traction a copy of the report signed by the Originator and Owner must be retained on the site and forwarded to the BU HSE Department.

Refer to AzSPU Record Control Procedure (AZSPU-HSSE-DOC-00041-2) for additional guidance.

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8 APPENDIX A – MAJOR INCIDENT NOTIFICATION PRO-FORMA

BP Major Incident Announcement			**URGENT**
***BP CONFIDENTIAL:* contains BP confidential business information – do not forward**			
Send by e-mail to the relevant distribution list. Add other addressees as necessary to meet BU or Regional requirements, e.g. Local Management Team or Joint Venture partner.			
SPU/Business Unit:			
Country:		**Location of Incident**:	
Date of Incident:		**Time of Incident**:	
Contact:			
Brief account of Incident: (Report as fact only what you are clear is fact. Specify the status of anything else which you report, e.g., a belief or an estimate):			

Fatalities:	**Control** Work-related	**Control** Not work-related	**Influence** Work-related	**Influence** Not work-related
Employee				
Contractor				
Third party				

Business impact/damage/loss:			
External agencies involved:			
News media coverage seen:			
What assistance has been requested:			
BP person in charge of response/Investigation:		**Business Unit Leader:**	
Office telephone:		Office telephone:	
Mobile telephone:		Mobile telephone:	
Home telephone:		Home telephone:	

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9 APPENDIX B – HIGH POTENTIAL INCIDENT NOTIFICATION PRO-FORMA

BP HIGH POTENTIAL INCIDENT ANNOUNCEMENT URGENT	
***BP CONFIDENTIAL:* contains BP confidential business information – do not forward**	
Business Unit:	Contact:
Country:	Location of Incident:
Date of Incident:	Time of Incident:
Brief Account of Incident: (Report as fact only what you are clear is fact. Specify the status of anything else which you report, e.g., a belief or an estimate):	
Potential Outcome:	
Actions Taken:	
BP Person in Charge of Response/Investigation:	

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10 APPENDIX C - MODEL TERMS OF REFERENCE TEMPLATE

INCIDENT INVESTIGATION TEAM

The following Investigation Team members and leadership have been agreed by the President; Performance Unit Leader and Manager, HSE.

Name	*Position*
1.	.....
2.	.....
3.	.....
5.	.....

6...etc

The Team Leader appointed by (Position.....) is (Name.....).

The Team Leader will:

- provide methodology guidance for the Investigation Team
- ensure compliance with the Terms of Reference
- ensure compliance with BP references for incident investigation
- ensure consensus among Team Members regarding report contents
- ensure persons accountable for actions agree with action(s) and date(s)
- report directly to (position), who is the Owner for this Investigation Team
- provide daily progress updates to the Owner for the duration of the investigation.

OBJECTIVES

1. Identify and review immediate causes of the incident.
2. Identify and analyze relative people, positions, parts and papers.
3. Identify and review system causes of the accident.
4. Map evidence; establish chronological list of events to identify critical factors.
5. Utilize “Comprehensive List of Causes; A Tool for System Cause Analysis” to analyze the incident.
6. Develop recommendations, corrective actions and lessons learned for the Owner’s review and approval.

Focus is on prevention of recurrence of a like-in-kind incident and communications of positive optics.

_____(*Owner)*

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11 APPENDIX D – COMPREHENSIVE LIST OF CAUSES CHART

Comprehensive List of Causes

A Tool for Root Cause Analysis

bp

Preliminaries | Antecedent-Behaviour-Consequence analysis | Causes | Corrective actions

Getting started

- Organize a small team, with the appropriate training and instruction.
- Set terms of reference for the work.
- Preserve the evidence prior to starting the investigation.
- See the RCA website for most recent support documents: https://rca.bpglobal.com.

Quality Tip
Good local preparation allows for a faster start to the investigation, which yields a better investigation.

Gathering evidence

- Visit the scene of the incident (positions).
- Interview using proper interview techniques – funnelling and numerous 5WH questions (people).
- Examine relevant records – paper or electronic (paper).
- Inspect the equipment involved (parts).

The four Ps: position, people, paper and parts represent evidence.

Quality Tip
A solid RCA investigation is dependent on factual information. The more facts you gather, the better your investigation.

Using the CLC

- Before using the CLC, organize the evidence into a timeline.
- Identify and write the critical factors – short, specific and action oriented is best.
- Then perform an ABC analysis as needed to better understand behaviours prior to using the CLC.
- After the ABC analysis is complete, use the CLC with the Glossary to determine the causes for each critical factor.

Quality Tip
A concisely worded critical factor allows the investigation team to focus their discussions and helps to tell the story in the incident report. Refer to training materials for a further discussion and examples of well crafted critical factors.

Quality Tip
Each cause you list must: 1) be supported by evidence and 2) answer why the critical factor existed. If a cause does not meet both of these elements, it should not be used.

01. Identify behaviours

When an investigation team does not understand why a person acted as they did, an antecendent-behaviour-consequence analysis is useful to better understand those behaviours. This understanding provides a quality cause analysis in the CLC.

To be effective, the ABC analysis should be done after the evidence is gathered, but prior to the start of the cause analysis.

To perform an ABC analysis:

- Identify the behaviour(s) in this critical factor – a behaviour is an observable action, i.e. what a person does or doesn't do or say.
- Write a statement of behaviour, including who performed the behaviour, the task they were engaged in at the time, what they did or did not do, and what was the outcome of that.
- See "A Guide to ABC Analysis" for more detail.

Quality Tip
The more specific you are in identifying the behaviour, the more specific the ABC will be. This will give you a better understanding of causes. Note that there may be more than one behaviour in a specific critical factor. Each behaviour should be listed and analysed separately. For example, a worker and a supervisor might exhibit different behaviours for different reasons.

02. Choose the right tool

There are two tools for analysis of behaviour and we determine which tool to use based on whether the behaviour was intended or unintended. Most behaviours are intentional, even if the outcome of that behaviour was unintentional or undesired.

- If the behaviour was intentional, proceed with the ABC analysis.
- If the behaviour was unintentional, consult with a master level Root Cause Specialist, who has specific expertise in this area. Unintentional behaviours are infrequent.

Quality Tip
To determine if a behaviour was intentional, focus on the action, not the outcome. for example, "I was using a mobile phone while driving, became distracted and had an accident." The behaviour is using a mobile phone while driving – and it is intentional. The outcome was I became distracted and had an accident. While that is an undesirable outcome, it does not change the fact the behaviour was intentional.

03. Consider antecedents

Antecedents are the things which trigger or promote a specific behaviour. Some antecedents are necessary for the behaviour to be possible or feasible, but antecedents alone will not guarantee the behaviour will be performed.

Some examples of common antecedents at work are:

- signs
- knowledge
- warning labels
- expectations of others
- training programs
- expectations of your supervisor
- policies
- tools and equipment
- rules
- example set by others
- procedures
- sufficient time
- working environment

Identify the antecedents present in this instance prior to the behaviour.

- Rate each antecedent as present and effective, present and not effective or not relevant or absent.
- Use this understanding to select appropriate causes for the critical factor associated with this behaviour

Quality Tip
An antecedent can be present and still not prevent an undesired behaviour. For example, if a warning sign says 'do not use this equipment' and a person ignores that and uses the equipment, the antecedent is present and effective – it conveyed the right information to the person. If an antecedent is rated as ineffective, you will need to specify a corrective action for it.

04. Consider expected consequences

Consequences are a more powerful driver for behaviour than antecedents are, but to understand consequences, we must consider them from the perspective of the person performing that behaviour. What did that person expect to get from performing that way? Remember two key points:
1) most behaviour is rational to the person performing it and
2) consequences can be both positive and negative.

Some examples of common consequences at work:

- saves time or effort
- get injured
- saves money
- get caught by supervisor
- get approval from a supervisor
- get corrected by a co-worker
- go home early
- personal discomfort
- avoid embarrassment

For each expected consequence:

- Rate each consequence as:
  1. either positive or negative,
  2. immediate or future and
  3. certain to occur, or uncertain.
- After you have completed the ABC analysis, the additional insights you have into the behaviours exhibited by the people involved in the incident will assist you in identifying the proper causes for each critical factor.
- Continue with the CLC process to identify the causes of each critical factor.

Quality Tip
Behaviour experts believe that consequences which are positive, immediate, certain and meaningful to the individual are the most powerful drivers of behaviour.

Possible immediate causes

Actions

1 Did not follow existing procedures
- 1.1 Violation (by individual)
- 1.2 Violation (by group)
- 1.3 Violation (by supervisor)
- 1.4 Procedure not available
- 1.5 Procedure was not understood
- 1.6 Other

2 Use of tools, plant/equipment or vehicle
- 2.1 Plant/equipment or vehicle used in the wrong way
- 2.2 Tools used in the wrong way
- 2.3 Use of plant/equipment or vehicle with known defect
- 2.4 Use of tools with a known defect
- 2.5 Incorrect placement of tools, equipment or materials
- 2.6 Operation of plant/equipment or vehicle at improper speed
- 2.7 Other

3 Use of protective equipment or methods
- 3.1 Need for protective equipment or methods not recognized
- 3.2 Personal protective equipment or methods not used
- 3.3 Incorrect use of personal protective equipment or methods
- 3.4 Personal protective equipment or methods not available
- 3.5 Disabled guards, warning systems or safety devices
- 3.6 Removal of guards, warning systems or safety devices
- 3.7 Other

4 Lack of focus or inattention
- 4.1 Distracted by other concerns
- 4.2 Inattention to surroundings
- 4.3 Inappropriate workplace behaviour
- 4.4 No warning provided
- 4.5 Unintentional human error
- 4.6 Routine activity without thought
- 4.7 Other

Conditions

5 Protective systems
- 5.1 Guards or protective devices not effective
- 5.2 Defective guards or protective devices
- 5.3 Incorrect personal protective equipment
- 5.4 Defective personal protective equipment
- 5.5 Warning systems not effective
- 5.6 Defective warning systems
- 5.7 Safety devices were not effective
- 5.8 Defective safety devices
- 5.9 Other

6 Tools, plant/equipment & vehicles
- 6.1 Plant/equipment malfunction
- 6.2 Preparation of plant/equipment
- 6.3 Tool malfunction
- 6.4 Preparation of tools
- 6.5 Vehicle malfunction
- 6.6 Preparation of vehicle
- 6.7 Other

7 Unanticipated exposure to
- 7.1 Fire and explosion
- 7.2 Noise
- 7.3 Energized electrical systems
- 7.4 Energized sources other than electrical
- 7.5 Temperature extremes
- 7.6 Hazardous chemicals
- 7.7 Mechanical hazards
- 7.8 Storms or acts of nature
- 7.9 Other

8 Workplace layout
- 8.1 Congestion
- 8.2 Illumination
- 8.3 Ventilation
- 8.4 Unprotected height
- 8.5 Workplace displays
- 8.6 Other

Possible system causes

Personal factors

9 Physical capabilities
- 9.1 Vision deficiency
- 9.2 Hearing deficiency
- 9.3 Other sensory deficiency
- 9.4 Other permanent physical disabilities
- 9.5 Substance sensitivities or allergies
- 9.6 Size or strength limitations
- 9.7 Other

10 Physical condition
- 10.1 Previous injury or illness
- 10.2 Fatigue
- 10.3 Diminished performance
- 10.4 Impairment due to drug, alcohol or medication
- 10.5 Other

11 Mental capability
- 11.1 Memory failure
- 11.2 Poor co-ordination or reaction time
- 11.3 Emotional status
- 11.4 Fears or phobias
- 11.5 Low mechanical aptitude
- 11.6 Low learning aptitude
- 11.7 Incorrect judgment
- 11.8 Other

12 Mental stress
- 12.1 Preoccupation with problems
- 12.2 Frustration
- 12.3 Confusing directions/demands
- 12.4 Conflicting directions/demands
- 12.5 Extreme decision demands
- 12.6 Unusual concentration or perception demands
- 12.7 Other emotional overload
- 12.8 Other

13 Behaviour
- 13.1 Antecedent not present
- 13.2 Antecedent not effective
- 13.3 Incorrect behaviour reinforced
- 13.4 Incorrect behaviour not confronted
- 13.5 Proper behaviour not rewarded
- 13.6 Behavioural analysis process not effective
- 13.7 Other

14 Skill level/competency
- 14.1 Assessment of required skills or competency not effective
- 14.2 Practice of skill not effective
- 14.3 No coaching on skill
- 14.4 Infrequent performance of skill
- 14.5 Other

Job factors

15 Training/knowledge transfer
- 15.1 No training provided
- 15.2 Training effort not effective
- 15.3 Knowledge transfer not effective
- 15.4 Training materials not recalled
- 15.5 Other

16 Management/supervision/employee leadership
- 16.1 Behaviours not reinforced
- 16.2 Participation in safety efforts not effective
- 16.3 Consideration of safety in staffing not effective
- 16.4 Resourcing for safety not effective
- 16.5 Support of people not effective
- 16.6 Monitoring/auditing of safety process not effective
- 16.7 Lessons learned not embedded
- 16.8 Leadership or accountability
- 16.9 Employee involvement not effective
- 16.10 Risk analysis or tolerance not effective
- 16.11 Other

17 Contractor selection & oversight
- 17.1 No contractor pre-qualification process
- 17.2 Contractor pre-qualification process not effective
- 17.3 Use of a non-approved contractor
- 17.4 Contractor selection not effective
- 17.5 No job oversight process
- 17.6 Job oversight not effective
- 17.7 Other

18 Engineering/design
- 18.1 Technical design not correct
- 18.2 Design standards, specifications or criteria not correct
- 18.3 Incorrect ergonomic or human factor design
- 18.4 Monitoring of construction not effective
- 18.5 Assessment of operational readiness not effective
- 18.6 Monitoring of initial operation not effective
- 18.7 Technical analysis for risk not effective
- 18.8 Other

19 Control of Work (CoW)
- 19.1 No work planning or risk assessment performed
- 19.2 Risk assessment not effective
- 19.3 Required permit not obtained
- 19.4 Specified controls not followed
- 19.5 Change in job scope
- 19.6 Worksite not left safe
- 19.7 Other

20 Purchasing, material handling & material control
- 20.1 Incorrect item ordered
- 20.2 Incorrect item received
- 20.3 Handling or shipping not effective
- 20.4 Storage of materials not effective
- 20.5 Labelling of materials not effective
- 20.6 Other

21 Tools & plant/equipment
- 21.1 Wrong tools or plant/equipment provided
- 21.2 Correct tools or plant/equipment not available
- 21.3 No inspection
- 21.4 Incorrect adjustment/repair/maintenance
- 21.5 Removal or replacement of unsuitable items not effective
- 21.6 No preventative maintenance program
- 21.7 Testing of plant, tools or equipment not performed
- 21.8 Other

22 Standards/Practices/Procedures (SPP)
- 22.1 Lack of SPP for the task
- 22.2 Development of SPP not effective
- 22.3 Communication of SPP not effective
- 22.4 Implementation of SPP not effective
- 22.5 Enforcement of SPP not effective
- 22.6 Other

23 Communication
- 23.1 Horizontal communication between peers not effective
- 23.2 Vertical communication between supervisor and person not effective
- 23.3 Communication between different organizations not effective
- 23.4 Communication between work groups not effective
- 23.5 Communication between shifts not effective
- 23.6 Communication not received
- 23.7 Incorrect information
- 23.8 Information not understood
- 23.9 Other

Quality Tip
Once you have identified system causes, recognize you are likely not at the root cause level. Continue to ask yourself and your investigation team "why?" until you are satisfied you have exhausted all possibilities. Using the '5 Why' technique is an effective way to drill deeper.

Quality Tip
A key responsibility of the investigation team leader is to push the team to identify when system causes are not yet root causes, and then specify additional causes not shown on the chart.

Finishing up

Assess existing barriers

- Understand each barrier that was either in place, or thought to be in place, prior to the incident.
- As part of your analysis, list each barrier and describe why it was ineffective.
- Propose corrective actions to fix or strengthen existing barriers before recommending new ones.

Draft your recommendations

- Corrective actions should be specific and targeted to the causes you have identified
- Each cause listed must be covered or addressed by a corrective action.

Test your thought process

- The investigation team must discuss and agree that if their corrective actions are properly implemented, they will be sufficient to prevent recurrence. If not, you must strengthen them.
- There must be symmetry between the cause and the corrective action. For example, an engineering cause must have an engineering corrective action and a behavioural cause must have a behavioural corrective action. Behavioural issues must consider the organizational and cultural issues which enable that behaviour.

Quality Tip
This concept of symmetry should be your final quality check before submitting your report. A lack of symmetry between the cause and the corrective action is inherently ineffective.

Quality Tip
Take care to properly develop each corrective action statement. Refer to training materials for a further discussion of the characteristics of targeted, effective corrective actions.

operating management system

CLC is a tool which ensures we have a consistent approach to investigating incidents and analyzing their root causes. Incident investigation is an element of the OMS, BP's shared way of operating to promote continuous improvement across the group.

Colour key to references: People | Plant | Process

12 APPENDIX E – DEFINITIONS

Definitions in this procedure, where appropriate, are identical to BP Group HSE Reporting Definitions, which can be found at <http://fcanda.bpweb.bp.com/default.asp?p=1642>.

Prompt reporting of incidents is essential. Before we can report we must be able to accurately classify our incidents. The Injury and Illness Reporting Decision Tree in Appendix F is an aid in this effort. In order to be accurate we must consider:

Work Related Incident

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

- Occurs when the employee was present in the work environment as a member of the general public
- Results solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity
- Involves signs or symptoms that surface at work but result solely from a non-work related event or exposure
- Is solely the result of an employee eating, drinking, or preparing food or drink for personal consumption
- Is solely the result of an employee doing personal tasks at the establishment 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 caused by a vehicle accident and it occurs on a company owned parking lot or road while the employee is commuting
- Is the common cold or flu; and/or
- Is a mental illness (unless it is post-traumatic stress syndrome where it can be tied to a specific workplace incident, or are Incidents where the employee voluntarily provides an opinion from a physician or other licensed health care professional stating the employee's mental illness is work-related).

  Further information is available in form of the "Occupational Injury and Illness Information – Accurate Determinations & Consistent Reporting" booklet. This guide is available by request to the Business Unit Resource Safety Team.

BP Work Environment

The establishment and other locations (including marine vessels and vehicles) where one or more BP Employees and or BP Contractors are working or are present as a condition of their employment/contract. The work environment includes not only physical locations, but also the equipment or materials used by the employee or contractor during the course of his or her work.

Specifically included are:

- Vehicles driven by a BP Contractor where the vehicle is dedicated to BP's business use. Dedicated means that the vehicle has been designated, normally under contractual terms, to be exclusively available for the provision of goods and or

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services to BP during a period of time covering multiple journeys (or deliveries). This also means that during this period of time, the vehicle is unavailable for business use by other parties. (This is equivalent to Vehicle Category 2 of the BP Driving Safety Standard).
- Any hire / rental vehicle being used on company business.
- A private vehicle on company business for which a member of the workforce is reimbursed.
- Any location where a BP Employee is engaged in Business Travel or where a BP Contractor is engaged in Business Travel on behalf of BP

Specifically excluded are:
- Locations where a Contractor is working and where that location is controlled by their employer, their employing contractor, or themselves.
- Vehicles or marine vessels that have been spot chartered. This means that vehicles or vessels are not dedicated (as defined in the inclusion above), and that they are regularly used by other third parties. The phrase 'spot charter vehicle' is synonymous with 'common carrier' or 'voyage charter'. (This is equivalent to Vehicle Category 3 of the BP Driving Safety Standard.)

Employment status

We count both Company and Contractor incidents that are work related. Accounting for Contractor incidents is a function of premises, as well as the nature of work and whether it is at a 3rd Party fabrication site. A definition for Contractor follows in the next section.

BP Workforce

The BP Workforce comprises all BP Employees, all BP Contractors and all BP Directors.

Employee

An individual who has a current contract of employment with BP plc or one of its subsidiary companies.

Contractor

An individual under a contractual relationship to supply BP plc or one of its subsidiary companies with goods and/or services.

A contractual relationship covers:

- All individuals contracted directly or sub-contracted
- All employees of companies contracted directly or sub-contracted
- All situations where a contract has not been raised but BP's procurement policy would normally expect there to be a contract in place. This applies to all levels including sub-contracted relationships.

Note: For the purposes of HSE reporting any sub-contractor is to be treated as if they held a contract directly with BP plc or one of its subsidiary companies.

Third party

Anyone who is not a BP Employee or a BP Contractor as previously defined in this document.

Members of the BP Workforce may be classified as third parties under specific circumstances. Three of the most common are:

- They are present in the BP Work Environment as a member of the general public (for example, an office worker refueling their car at a BP Retail Station).
- They are present in the BP Work Environment but are still commuting to work under OSHA definitions

Those periods on a business trip when they are not deemed to be working under OSHA definitions - for example, during their temporary commute or when residing at their home away from home

Incident

An unplanned event or occurrence that affects or has the potential to affect the health or safety, or security of:

- people, or
- assets, or
- the environment.

Near Miss

An undesired event that, under slightly different circumstances, could have resulted in harm to people, damage to assets, environmental harm or unplanned operational shutdown. A near miss is an incident involving the unintentional transfer of energy but has no negative consequence.

First Aid Case

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

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, 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 as accident victim
8. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister
9. Using eye patches

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

If the treatment type isn't on the list then the case should be considered as medical treatment and will be counted as a recordable injury or illness.

Note: When determining whether a prescription medicine was used the normal practise is to apply the definitions used in the country where the incident occurred. However, when making this 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 simple first aid.

Medical Treatment Case

A case arising from an Incident, in which the management and care of the patient to address the injury or illness is above and beyond First Aid. 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.

Medical Treatment cases include the following:

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

Recordable Injuries and Illnesses

Includes all work-related BP workforce injury and illness incidents that result in a:

- Fatality
- Day Away From Work Case (DAFWC)
- Restricted Work or Job Transfer (RW/JT)
- Medical Treatment beyond First Aid (MT)

Restricted Work or Job Transfer (RW/JT)

An incident is classified as a restricted work or job transfer case when:

- The member of the BP Workforce is kept from performing one or more of the routine functions of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work or is transferred to a different job for all or part of his/her period of recuperation.
- A physician or other licensed health care professional recommends that the member of the BP Workforce not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled

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to work or is transferred to a different job for all or part of his/her period of recuperation.

Guidance: Routine functions are these work activities the member of the BP Workforce regularly performs at least once a week.

Days Away From Work Case (DAFWC)

A work-related injury or illness that would prevent the injured person from working on the day following that which the injury occurred, whether or not he or she is actually scheduled to work the following shift. If the medical professional declares that the individual is not fit to return to work on the day following the injury, then the case is classified as a DAFWC even if the following day is not a scheduled workday. If a person subsequently must have corrective surgery or otherwise miss work as a result of the work related injury, and does so during a scheduled absence then the injury is still considered a DAFWC.

High Potential (HiPo) Incident

An Incident or Unsafe/Unhealthy Condition or near miss, including a security incident, where the most serious probable outcome is a Major Incident.

Major Incident (MIA)

An Incident, including a security incident, involving any one of the following:

- 1 or more fatalities associated with BP operations
- 10 or more injuries or health effects to BP workforce, either permanent or requiring hospital treatment for more than 24 hours.
- Significant adverse reaction from authorities, media, NGOs or the general public
- Costs from accidental equipment and property damage, and/or loss of business value equal to or exceeding US $ 5 Million
- Environmental Impact with A-E severity level (refer to Appendix G)
- Loss of Primary Containment with A-E severity level (refer to Appendix I-J)

Recordable Fatality

A fatality is deemed recordable unless the circumstances indicate that the event is not relevant to the measurement of the health and safety performance of the Company. Fatalities arising, for example, from suicide, inexplicable personal behaviour or natural causes would normally be excluded.

Incident severity

All incidents should be reported. Incident severity is determined per the Traction Severity Matrix or Severity Matrices in Appendices G-J.

Vehicle Accident

A work-related accident involving a motor vehicle that occurs on or off-road resulting in injury, or loss/damage, or harm to the environment, whether this impacts BP and/or its contractor directly, or impacts a third party This is irrespective of whether the accident was preventable or non-preventable. It excludes all accidents where:

- The BP Workforce vehicle was legally parked
- The journey is to or from the driver's home and normal place of work

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- Minor wear and tear is the case (e.g. stone damage to a windscreen, minor paintwork damage)
- An Incident is the result of vandalism, or theft
- A company provided vehicle is being driven on non-work related activities (e.g. private business, leisure).

References

1. Group Defined Operating Practice on Reporting HSSE and Operational Incidents (GDP 44-00-01), which can be found on http://hsse.bpweb.bp.com/OMS/OMS-Library/level3.aspx?404;http://hsse.bpweb.bp.com/OMS/OMS-Library/
2. Group Defined Operating Practice on Incident Investigation (GDP 44-00-02), which can be found on http://hsse.bpweb.bp.com/OMS/OMS-Library/level3.aspx?404;http://hsse.bpweb.bp.com/OMS/OMS-Library/
3. BP Group HSE Reporting Definitions, which can be found on http://fcanda.bpweb.bp.com/default.asp?p=1638&mi=4445

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13 APPENDIX F - INJURY AND ILLNESS REPORTING DECISION TREE

If in the work environment, assumed work-related unless:

- Member of general public,
- Signs & symptoms surface at work but result solely from non-work-related event or exposure,
- Voluntary participation,
- Eating, drinking, preparing own food,
- Doing personal tasks outside working hours,
- Personal grooming, self-medication, intentional self-inflicted injury,
- Company parking lot while commuting,
- Common cold or flu, or
- Mental illness.

Other work-related exceptions:

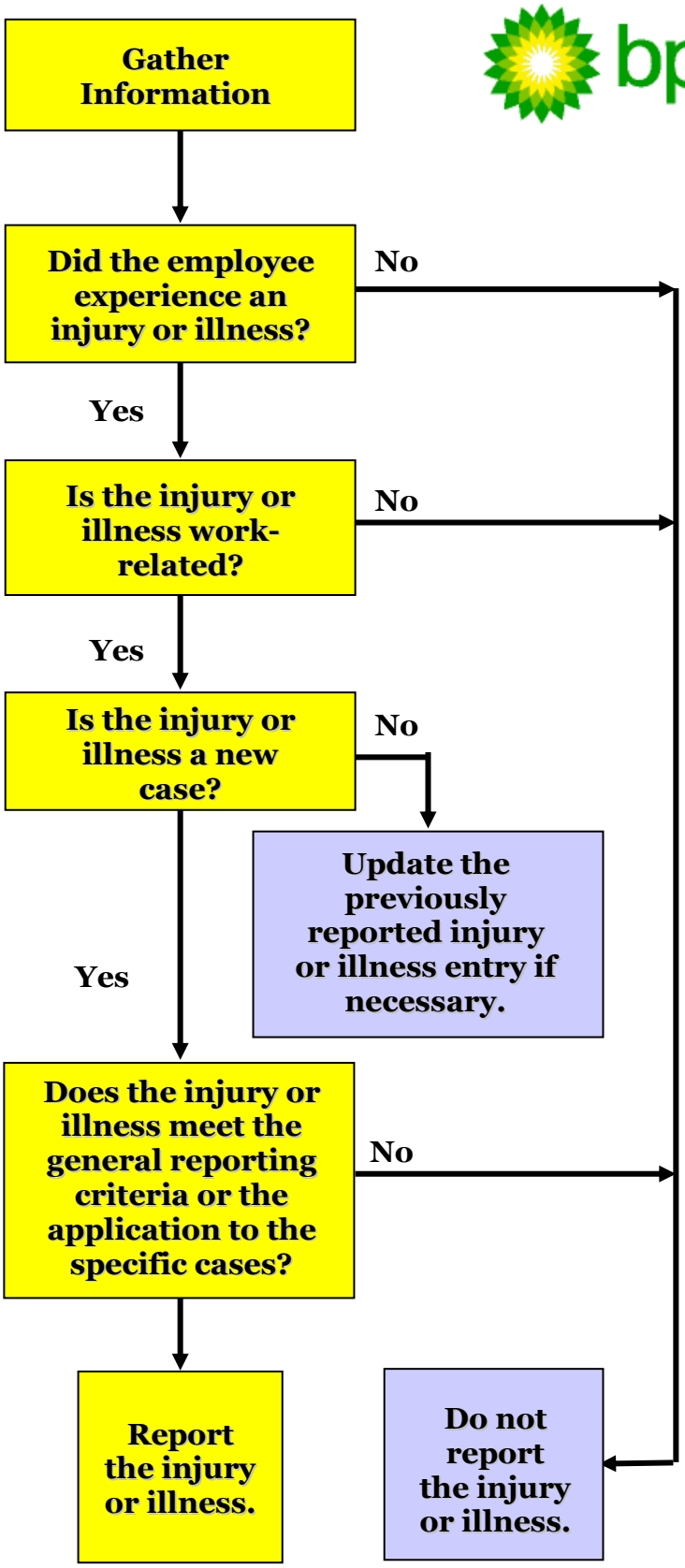
- Home away from home &
- Personal detour while on company business.

General Reporting Criteria:

- Death,
- Days away from work,
- Restricted work or transfer to another job,
- Medical treatment beyond first aid,
- Loss of consciousness, or
- A significant injury or illness diagnosed by a physician or other licensed health professional:
  - Cancer,
  - Chronic irreversible disease,
  - Fractured or cracked bone, or
  - Punctured eardrum.

First aid treatments:

- Non-prescription medication in non-prescription strength,
- Tetanus immunizations,
- Cleaning, soaking, flushing wounds on surface of skin,
- Use of bandaids, Steri-Strips or butterfly bandages,
- Hot or cold therapy,
- Non-rigid means of support,
- Temporary immobilization devices while transporting an accident victim,
- Drilling finger or toe nail,
- Eye patch,
- Removing foreign bodies from eye using irrigation or cotton swab,
- Removing splinters or other foreign material from places other than the eye by simple means,
- Using finger guards,
- Using massages, or
- Drinking fluids for relief of heat stress.



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14 APPENDIX G. SEVERITY MATRIX - HSE IMPACT LEVELS

SEVERITY LEVEL	HEALTH AND SAFETY	ENVIRONMENTAL
A-D	* 3 or more fatalities, acute or chronic, actual or alleged. * Identified onset of life threatening health effects in 3 or more workers. * 30 or more injuries or health effects to BP workforce, either permanent or requiring hospital treatment for more than 24 hours.	* Event with widespread or extensive damage to any environment and that remains in an "unsatisfactory" state for a period > 5 years. *Event with widespread or extensive damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months or up to 1 year. * Event with localized or extensive damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months or up to 1 year. *Event with widespread or extensive damage to a non-sensitive environment and that can only be remediated to a "satisfactory" / agreed state in a period of 2 - 4 years. *Event with extensive damage to a non-sensitive environment and that remains in an "unsatisfactory" state for a period > 5 years. *Event with widespread or extensive damage to a sensitive environment and that can only be remediated to a "satisfactory" / agreed state in a period of 2 -4 years.
E	* 1 to 2 fatalities, acute or chronic, actual or alleged. * 10 or more injuries or health effects to BP workforce, either permanent or requiring hospital treatment for more than 24 hours.	* Event with localized damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of @ 1 year. * Event with extensive damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months. * Event with localized damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months. * Event with extensive damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks.
F	* Permanent partial disabilities * Sever al non-permanent injuries or health impacts * DAFWC	* Event with localized damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months. * Event with immediate area damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months. * Event with extensive damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks. * Event with localized damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks.
G	* Single or multiple recordable injury or health effects from common source/event	* Event with immediate area damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of months. * Event with localized damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks. * Event with immediate area damage to a sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks.
H	* First aid. * Single or multiple over-exposures causing noticeable irritation but no actual health effects	* Event with immediate area damage to a non-sensitive environment and that can be remediated to a level that restores its environmental amenity in a period of days or weeks.

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15 APPENDIX H. SEVERITY MATRIX – BUSINESS IMPACT LEVELS

SEVERITY LEVEL	EQUIPMENT DAMAGE, BUSINESS VALUE LOST	PRIVILEGE TO OPERATE
A-D	*>$100m Equipment/Property Damage and/or BVL	* Public outrage or brand damage in major markets where we have presence or aspiration. * Global or Regional media coverage or Severe National Outrage. * Actual or threatened Loss of License to Operate. * Likely to lead to change of local, national or international regulations.
E	*$5m to $100m Equipment/Property Damage and/or BVL	* Localised or limited "interest-group" outrage in major market. * Public or investor outrage in non-major markets. * Significant enforcement action against one or more material assets in a significant market (e.g. US, Europe).
F	*$500k-$5m Equipment/Property Damage and/or BVL	* Prolonged local media attention. * Other enforcement action against one or more material assets in other market (not US or Europe) with a foreseeable end date.
G	*$50k -$500k Equipment/Property Damage and/or BVL	* Short term local media coverage. * Some disruption to day to day lives (e.g. loss of single road access less than 24 hours). * Fines or other penalties significant to a BU.
H	*<$50k Equipment/Property Damage a nd/or BVL	* No community notification. * Isolated and short term complaints from neighbours (e.g. complaints about specific noise episode). * Code of Conduct violation that does not lead to higher severity level consequence.

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16 APPENDIX I. SEVERITY CLASSIFICATION - LOPC OF FLAMMABLE GASES, LIQUIDS AND OTHERS

Loss of Primary Containment – POTENTIAL Severity Classification **If a substance has more than one associated hazard (e.g. flammable/explosive and toxic), use the predominant physical characteristic**					
Type of Substance	**Flammable Gases and Vapours**		**Flammable liquids, and liquid escaping above auto-ignition temperature**		**Other hazardous categories including combustible or corrosive gases / fluids / vapours or solids**
	* Onshore confined releases * Offshore releases – manned facilities	* Onshore, unconfined releases *□ Offshore releases – unmanned facilities	* Offshore – loss of primary containment	* Onshore – loss of primary containment	* Onshore/offshore – loss of primary containment
Definitions	*Definition of flammable gas:* **Gaseous material or gaseous material that is a liquid under pressure and has a flash point below 22.8 °C (73 °F).** **A comprehensive list of substances is available under the categorization of Packing Group I materials as defined by UN Dangerous Goods definitions**		*Definition of flammable liquid:* **Any liquid having a flashpoint less than or equal to 38 °C.** **A comprehensive list of substances is available under the categorization of Packing Group II materials as defined by UN Dangerous Goods definitions**		**A comprehensive list of substances is available under the categorization of Packing Group III materials as defined by UN Dangerous Goods definitions** **(e.g. Crude oil, corrosives, organic peroxides, pyrophoric, combustible liquid >38C flash point)**
Level A -D	**> 5000 kgs**	**> 50000 kgs**	**> 10000 kgs (or >100 bbls)**	**> 100000 kgs (or >1000 bbls)**	**>1000 bbls (fluids)** **>100,000 kgs (gas/vapors /solids)**
Level E	**500 < 5000 kgs**	**5000 < 50000 kgs**	**1000 < 10000 kgs**	**10000 < 100000 kgs**	**100 <1000 bbls (fluids)** **10,000 <100,000 kgs (gas/vapors/solids)**
Level F	**50 < 500 kgs**	**500 < 5000 kgs**	**100 < 1000 kgs**	**1000 < 10000 kgs**	**1 <100 bbls (fluids)** **2000 <10,000 kgs (gas/vapors/solids)**
Level G	**5 < 50 kgs**	**50 < 500 kgs**	**10 < 100 kgs**	**100 < 1000 kgs**	**0.1 < 1 bbl (fluids)** **200 < 2000 kgs (gas/vapors /solids)**
Level H	**< 5 kgs**	**< 50 kgs**	**<10 kgs**	**< 100 kgs**	**< 0.1 bbl (fluids)** **< 200 kgs (gas/vapors /solids)**

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17 APPENDIX J. SEVERITY CLASSIFICATION - LOPC OF TOXIC SUBSTANCES

Toxic Substances[4]				
Substance Class	**Lower Toxicity Substance (Class D)**	**Medium Toxicity Substance (Class C)**	**Higher Toxicity Substance (Class B)**	**Acutely Toxic Substance (Class A)**
	All gas, vapor, mist or aerosol LOPC, regardless of location			
Level A-D	**> 4000 kgs**	**> 2000 kgs**	**> 1000 kgs**	**> 50 kgs**
Level E	**2000 < 4000 kgs**	**1000 < 2000 kgs**	**250 < 1000 kgs**	**15 < 50 kgs**
Level F	**200 < 2000 kgs**	**100 < 1000 kgs**	**25 < 250 kgs**	**5.0 kg < 15 kgs**
Level G	**50 < 200 kgs**	**25 < 100 kgs**	**5 < 25 kgs**	**0.5 < 5.0 kgs**
Level H	**< 50 kgs**	**< 25 kgs**	**< 5 kgs**	**< 0.5 kgs**

[4] From proposed CCPS and API guidelines based on UN Dangerous Goods definitions, November 2007

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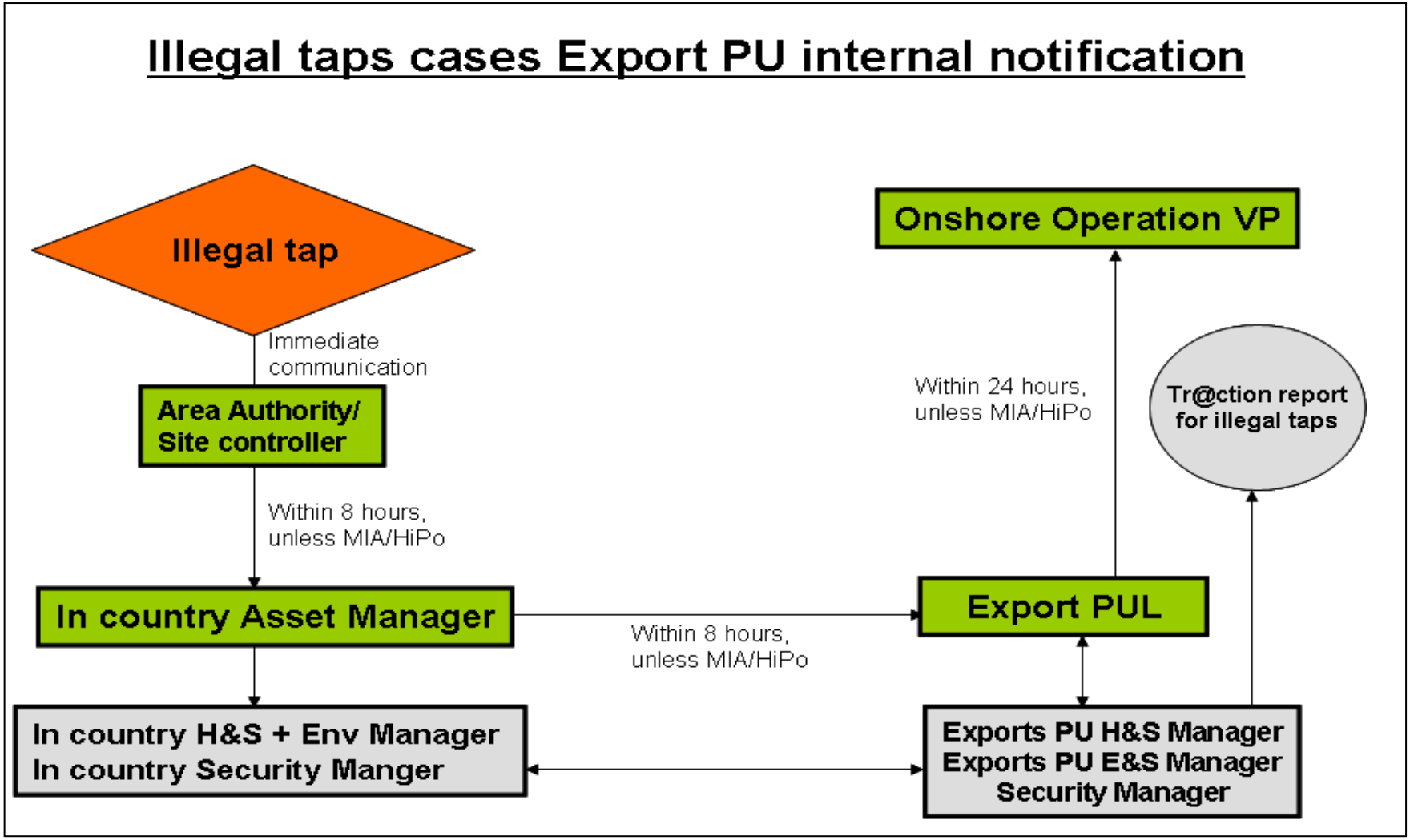
18 APPENDIX K. Exports PU Internal Incident Notification Requirements for Illegal taps incidents



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19 APPENDIX L. Onshore Operations External Notification Requirements

What	When	By Whom	To Whom
Major Incidents (MIAs)	<24hrs (verbal) <3 days (written)	AzSPU CHSSE (Az) or C&EA (Geo) (*during office hours*) or Duty Incident Commander (out of office hours)	In-country Regulators
	<2 days	PUL	Partners (BTC or SCP)
	<3 days	BTC Commercial	BTC Lenders (BTC MIAs only)
High Potential Incidents (HiPos)	<24 hrs (verbal) <3 days (written)	AzSPU CHSSE (Az) or C&EA (Geo) (*during office hours*) or Duty Incident Commander (*out of office hours*)	In-country Regulators
	<2 days	PUL	BTC or SCP Partners
	<3 days	BTC Commercial	BTC Lenders (BTC HiPos only)
Any other Incident (that is not an MIA or HiPo)	<5 days	Onshore PU E&S Manager (Environmental Incidents only)	BTC Lenders
Spill / material release to the environment (i.e. that breach secondary containment) that is not an MIA or HiPo	24 hrs verbal 72 hrs written	CHSSE External Relations (Az) or C&EA Teams (Geo)	Regulatory notification

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20 APPENDIX M. LESSONS LEARNED DOCUMENT FORMAT

Lessons Learned Document

Type Title Here

INCIDENT:

TYPE OF INCIDENT:

BUSINESS UNIT:

LOCATION OF INCIDENT:

COUNTRY:

Tr@ction IR No:

DATE OF INCIDENT:

BRIEF ACCOUNT OF INCIDENT:

WHAT WENT WRONG (CRITICAL FACTORS):

SUMMARY OF IMMEDIATE CAUSES:

SUMMARY OF SYSTEM CAUSES:

SUMMARY OF LOCAL ACTIONS:

KEY REMINDERS:

NEW LESSONS LEARNED:

PHOTOGRAPH:

CONTACT:

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REVISION/REVIEW LOG

Revision Date	Authority	Custodian	Revision Details
23 February 2006	McNuilty Alan	Islamov Abbas	Initial Issue
09 July 2007	McNuilty Alan	Islamov Abbas	The major changes made in the document cover the following areas: • Clarity on individual Roles and responsibilities and incident owners based on severity of incident • Process for notification of MIA/HiPo incidents to Group and AzSPU Senior Management • Clarity on the procedure for classification and initiation of DAFWC/HiPo/MIA investigations • Actions setting and prioritization - note change from targets based on prescriptive dates to agreed timescales between actionee and action owner • Approval process - owner and approver is now the same person • Removal of "Spheres of Influence" • Roles and responsibilities • MIA/HiPo notification • Investigation Process • Actions setting and prioritization

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30 April 2008	McNuilty Alan	Mamedov Rufat	The major changes made in the document cover the following areas: • Tr@ction and MIA/HiPo Database recording requirements • Incident Notification Requirements clarified in Figure 3.1 • Included Figure 4.1 “Guidelines to Assess Potential Severity” • Update to figure 4.2 “HiPo determination flowchart” in light of new Group severity matrices • Included section on ABC Analysis • Requirements for AzSPU outside distribution requirements for HiPlus, Lessons Learned one pager and similar documents. • New Comprehensive List of Causes (CLC) Chart • Appendix E renamed to “Definitions” and definitions were updated in light of new BP Group F&CA HSE Definitions and OMS GDPs 44-00-01 and GDPs 44-00-02 • new severity matrices • Export PU Internal Notification requirements for illegal taps • Onshore Operations External Notification Requirements

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