V. Ships Leisure S.A.M.

V.SHIPS LEISURE S.A.M. WORK INSTRUCTIONS REPORTING *AND* ANALYSIS, OF HAZARDOUS SITUATIONS *and CATEGORIZATION* *IN* SIGNIFICANT INCIDENTS AND ACCIDENTS		Version: 1 (11/09) Revision: 1 (07/14) Page 1 of 7
Scope / Application: Office: S&Q Dept Ships: N/A	# 37	Appr:

1.0 Reporting and Analysis of Hazardous Situations (HazSit) by the Company

1.1 The DPA/Marine Superintendent is responsible to follow up on the hazardous situations reports received by the vessels under his responsibility

1.2 The Marine Superintendent will follow up on all reports of a safety and environmental nature, liaising with the Fleet Manager/ Super for those requiring technical support. The follow up action shall include the analysis of the proposed corrective actions (immediate and long term actions, if any) and close out of the report.

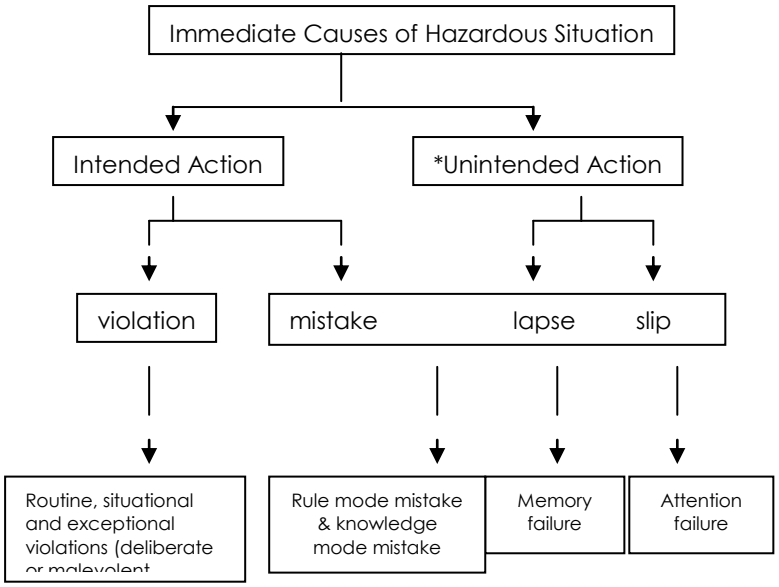
1.3 The hazardous situation report prepared by the shipboard command might only identify the **immediate Causes**

1.4 When the contributing factors and the **primary cause (root causes)** of a hazardous situation) have been identified by the ship, then they should be reviewed and confirmed by the Company

1.5 Therefore each DPA is required to carry out an in-depth analysis of the facts and circumstances that caused the hazardous situation through Shipsure as per the following guidance:

1.5.1 The analysis for the **root causes** should be completed in ShipSure

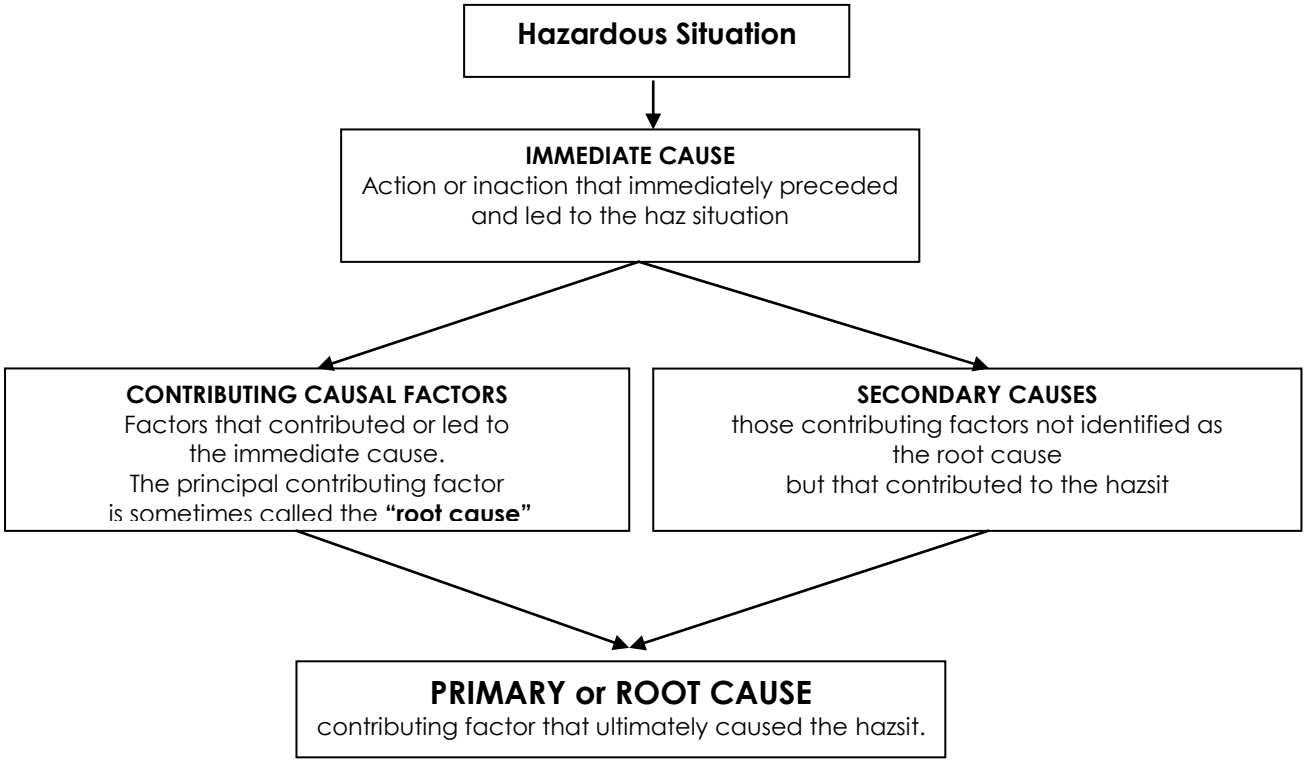
1.5.2 The **Immediate Cause** is an action or inaction that immediately preceded and led to the event;



**skill mode routine errors*

1.5.3 contributing causal factors are the factors that contributed or led to the **Immediate cause**.

1.5.4 one of these contributing factors may be more important than the others in causing the hazardous situation, and that factor is defined as the **primary or root cause** (the contributing factor that ultimately caused the incident).



1.6 Identifying **Root Causes**:

- Is one of the main goals of the analysis process,
- is heavily dependent on finding the causal factors
- should not be started until the causal factors have been identified
- starting this step too early will lead to the identification of invalid underlying causes and, therefore, invalid recommendations
- when the analysis is properly completed should identify a management system deficiency

- *The 5 Whys technique* should be used as many times as necessary to identify the deficiency

2.0 Risks addressed with hazardous situations reporting:

2.1 Non-compliance with regulatory obligations

2.2 Not reporting hazardous occurrences and sharing lessons learned increases possibility of reoccurrence of hazardous occurrences that might have been prevented

2.3 Failure to identify best practice

3.0 Reporting and Analysis of Significant Incidents and Accidents to Company Management by DPAs

3.1 The incidents and accidents should be analyzed by the DPA whether significant or not

3.2 The DPA will be guided by the attached document (in Appendix I – List of Significant Incidents and Accidents) which provides criteria for categorization of a *significant* incident or accident

3.3 Those identified as significant should be reported to the Company Management by the DPA

4.0 Company Management *periodical safety* meeting:

4.1 An Office meeting of *held by the* Company management will review the significant incidents and accidents and by using professional *judgment,* will determine why the contributing conditions existed and why certain negative actions occurred by:

- analyzing the contributing factors and **primary causes**

- the **primary causes** based on a case-by-case review of each significant accident or incident's facts and circumstances
- each causal factor must be determined why it existed or occurred

- identifying common **root causes** and determine changes necessary to prevent future haz situations by elimination of those causes
- identifying weaknesses in management control like missing, failed or inadequate management system, which usually the **root cause** is
- indentifying specific follow-up actions' system to be corrected
- making recommendations to prevent a recurrence of the event
- calculating the financial costs to the Company, if any
- proposing safeguards against a repetition of the chain of events

4.2 The *safety* meeting will complete a breakdown of contributing factors by class and category as per the guidance (in Appendix II – Analysis of Contributing Causal Factors) and the diagram attached below

4.3 The Steps leading to an Incident or Accident are to be reviewed as follows:

Organizational causes (root causes)	Contributory factors	Immediate causes	
Company policies: Translated into actions Measure? Reviewed? Audited? Risk assessed? **Tools:** Communications? Procedures? Training/competence ? One team approached? Involvement? Commitment?	**Latent failures :** Poor inspection Supervision failure Mismatch job/individual Equipment design Workplace design	**Software:** Human errors (lapses, slips, trips, mistakes, human violations, **Hardware:** Engineering Technical failure	ACCIDENT / INCIDENT

taking into consideration the following:

- an incident or accident is usually a result of an error chain, which is a number or errors combining in an unbroken sequence.
    - the chain regularly, but not always, commences from organizational causes within the management system.
    - It is essential that these causes are examined and the resultant latent defects, in order to arrive at the **root causes** of the incident.

4.4 Finally, having reviewed the what, how, and why of the incident, and confirmed the causal factors and subsequently the **root causes**, the extraordinary company meeting, if deemed necessary, will develop recommendations to prevent re-occurrence as follows:

- the recommendations should be based on conclusions based on the facts
- to be more effective, recommendations should be feasible and should likely address all causal factors and **root causes**