

ANALYSIS OF HAZARDOUS OCCURRENCES

Scope

This Local Work Instruction (LWI) contains guidelines for office (remote) investigation and analysis of shipboard Hazardous Occurrences (HazOccs) by the Marine Superintendents/ DPAs, or other members of the Fleet Cell, when HazOcc report is received from a ship under their responsibility.

Note: These guidelines apply for HazOcc investigation and analysis which do not require onboard visit for investigation by trained investigators as per the **V. Group “Hazardous Occurrence Categories – Leisure” matrix**, which sets the office response requirements. HazOccs requiring onboard visit for investigation as defined by the matrix, will be investigated as per the **V. Group “Major Incidents – Guidance for Office Staff (Private and Confidential)”** (latest edition available at request)

The goal of the HazOcc investigation and analysis is to identify **immediate and root causes** of HazOccs and address the causes through corrective actions in order to prevent reoccurrence.

Caution: *Do not assign blame to individuals as part of the HazOcc investigation process as this is not productive*

Identifying **root causes**:

- is heavily dependent on finding the causal factors
- should not be started until the causal factors have been identified

Note: Starting this step too early may lead to identification of invalid underlying causes and recommendations

- if properly completed, should identify a management system deficiency

Guidelines for HazOcc analysis/ investigation

- 1) Read this LWI in conjunction with VMS section [Operations](#) > [Safety Management](#) > Hazardous Occurrences & Reporting
- 2) Follow up on all reports of a safety, security, public health, equipment failure or environmental nature

Note: If investigation is carried out by the Marine Superintendent, he should seek support from the Fleet Manager/ Superintendent on technical matters

- 3) Review the **immediate cause, contributing factors and root cause** of a HazOcc reported by the ship

Note: The HazOcc report prepared by the ship might have identified the **immediate causes** only

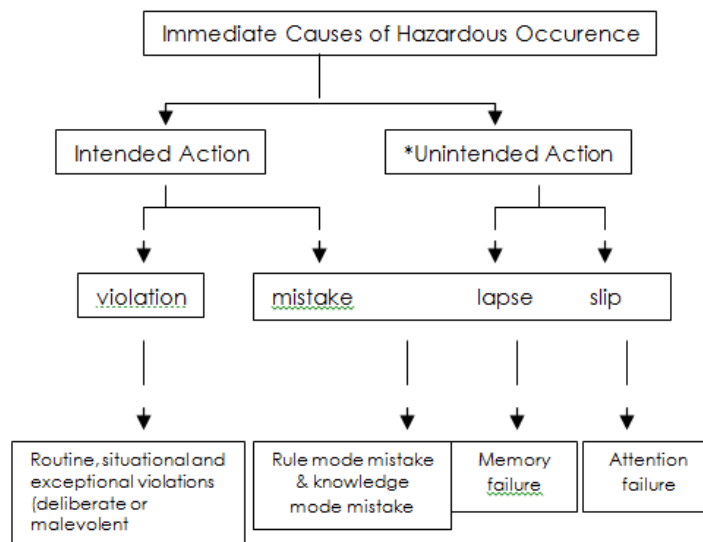
- 4) Carry out an in-depth analysis of the facts and circumstances that caused the HazOcc in Shipsure

Note: Use the “the 5 Whys technique” as many times as necessary

5) Verify:

a) the immediate cause

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



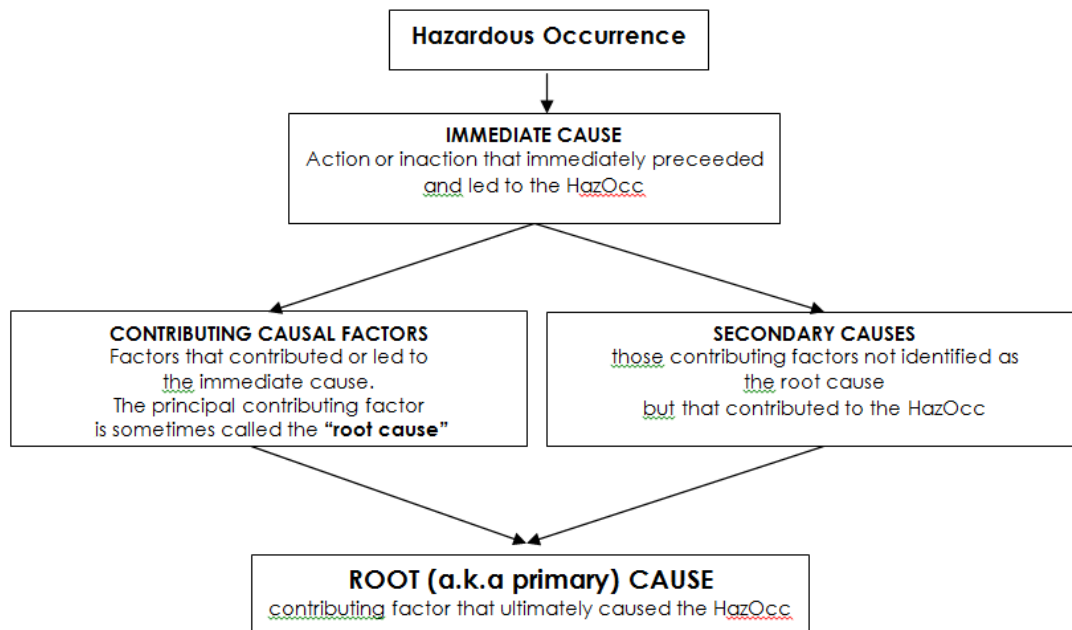
**skill mode routine errors*

b) the contributing causal factors

Note: **Contributing causal factors** are the factors that contributed or led to the immediate cause

c) the root cause (a.k.a primary cause):

Note: **The root cause** is the contributing factor that ultimately caused the HazOcc and is more important than the others in causing the HazOcc.



- 6) Include in the follow up action the analysis of the proposed corrective actions (immediate and long term actions, if any)
- 7) Close out of the report

Completed