

The following tables contain a variety of possible causes. However, they should never limit the possibilities of accident causes. These tables are reference tools and should be considered as reminders in the investigation process and analysis.

IMMEDIATE CAUSES	TYPE	CATEGORY
01 – Operating equipment without authority	Immediate	Substandard actions
02 – Improper/lack of communication	Immediate	Substandard actions
03 – Failure to secure/make safe	Immediate	Substandard actions
04 – Operating at improper speed	Immediate	Substandard actions
05 – Making safety devices inoperable	Immediate	Substandard actions
06 – Removing safety devices	Immediate	Substandard actions
07 – Using defective equipment	Immediate	Substandard actions
08 – Using equipment improperly	Immediate	Substandard actions
09 – Failure to use PPE properly	Immediate	Substandard actions
10 – Improper loading	Immediate	Substandard actions
11 – Improper placement	Immediate	Substandard actions
12 – Improper lifting	Immediate	Substandard actions
13 – Improper position for task	Immediate	Substandard actions
14 – Servicing equipment in operation	Immediate	Substandard actions
15 – Horseplay	Immediate	Substandard actions
16 – Inadequate inspection	Immediate	Substandard actions
Other	Immediate	Substandard actions
21 – Inadequate guards or barriers	Immediate	Substandard conditions
22 – Inadequate ground support	Immediate	Substandard conditions
23 – Inadequate/improper protective equipment	Immediate	Substandard conditions
24 – Defective tools, equipment or materials	Immediate	Substandard conditions
25 – congestion or restricted action	Immediate	Substandard conditions
26 – Inadequate warning system	Immediate	Substandard conditions
27 – Fire and explosion hazards	Immediate	Substandard conditions
28 – Substandard housekeeping	Immediate	Substandard conditions
29 – Hazardous Environment conditions: gases, dust, fumes, vapours, smoke etc.	Immediate	Substandard conditions
30 – Noise exposure	Immediate	Substandard conditions
31 – Radiation exposure	Immediate	Substandard conditions
32 – Temperature exposure	Immediate	Substandard conditions
33 – Inadequate or excessive illumination	Immediate	Substandard conditions
34 – Inadequate ventilation	Immediate	Substandard conditions
35 – Ground rock conditions	Immediate	Substandard conditions
36 – Procedure does not exist	Immediate	Substandard conditions
37 – Personal protective equipment missing	Immediate	Substandard conditions
38 – Failure to warn	Immediate	Substandard conditions
39 – Communication means inadequate (poor communication)	Immediate	Substandard conditions
40 – Instability of the surface, slippery conditions etc.	Immediate	Substandard conditions
Other	Immediate	Substandard conditions

FUNDAMENTAL (ROOT) CAUSES	TYPE	CATEGORY
61 – Inadequate physical/mental capacity	Fundamental	Personal factors
62 – Lack of knowledge	Fundamental	Personal factors
63 – Lack of skill	Fundamental	Personal factors
64 – Stress physical or mental	Fundamental	Personal factors
65 – Improper motivation	Fundamental	Personal factors
66 – Abuse or misuse	Fundamental	Personal factors
Other	Fundamental	Personal factors
71 – Inadequate leadership/supervision	Fundamental	Organizational factors
72 – Inadequate engineering	Fundamental	Organizational factors
73 – Inadequate purchasing	Fundamental	Organizational factors
74 – Inadequate maintenance	Fundamental	Organizational factors
75 – Inadequate tools/equipment	Fundamental	Organizational factors
76 – Inadequate work standards	Fundamental	Organizational factors
77 – Wear and tear	Fundamental	Organizational factors
Other	Fundamental	Organizational factors