

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 |