

Energy isolation



Energy isolation separates people from hazards such as electricity, pressure, and energised equipment. Energy isolation also provides protection from potential energy source, e.g. positioning valves to prevent tanks filling with materials due to gravity.

Any stored energy (e.g. hydraulic or pneumatic power) should be identified, isolated or dissipated before the work starts.

Energy Isolation

Verify isolation and zero energy before work begins



- I have identified all energy sources
- I confirm that hazardous energy sources have been isolated, locked, and tagged
- I have checked there is zero energy and tested for residual or stored energy

Source: IOGP, Report 459 IOGP Life-Saving Rules

Here are some incidents that have happened in relation to energy isolation:



Unidentified live bus bars discovered during electrical task

As part of an electrical transformer upgrade, new mains cables were run to a 415V electrical switchboard. The electrical components were isolated and proven deenergised.



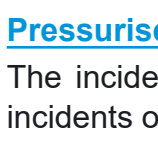
Isolating electrical equipment

During electrical maintenance, the supervisor isolated the wrong section, leading to electric shock of his colleague. Lock-out tag-out wasn't used and the switches were poorly organised.



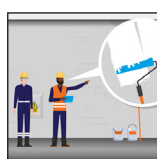
Fatal electric shock when working on the wrong electrical panel

Electrical works were being carried out on an offshore installation. An electrician was working alone testing the panel, he was unable to be contacted, and he was found to have been electrocuted.



Pressurised equipment and stored energy

The incidents you are about to see are based on real events. Several incidents occurred when stored energy was released unexpectedly.



Non-isolated hanging electrical wire causes electric shock

The animation you are about to see is based on a real event. A worker was painting the exterior wall of a service station when his shoulder came into contact with a non-isolated electrical wire.

