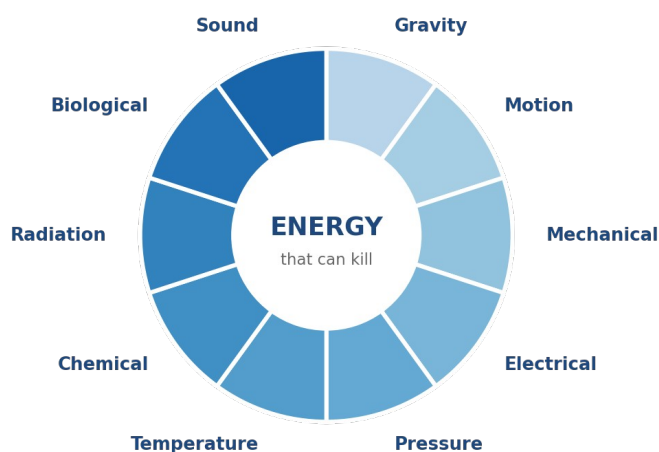


The Energy Wheel & CCM Integration Sheet

Put energy thinking to work in your critical control program.

Critical Control Management and Energy Based Safety describe the same physics — the uncontrolled transfer of energy. Use the wheel to see the energy that can kill, then sharpen three points of your program: how you identify, how you control, and how the frontline sees it.

TEN ENERGIES THAT CAN KILL



Read the wheel.

Ten sources of energy that can kill a worker. Unaided, teams see about half the hazards on a task; a structured scan against the wheel surfaces the lethal ones.

The lethal line.

About 1,500 joules is enough to kill. A four-metre fall carries roughly 3,000 J — twice the line. A haul truck at speed carries tens of millions.

THREE POINTS OF INTEGRATION

Identify **Name the energy, then measure it.**

Add an energy column to your risk assessment and flag anything above the ~1,500 J line. The threshold turns “is this fatal?” from a debate into a measurement.

Control **Choose controls that hold the energy.**

Rank controls direct vs non-direct. A direct control acts on the energy and holds even if the worker errs (a fixed guardrail); a non-direct control depends on behaviour (a harness that relies on clipping on).

Frontline **Name the energy at the point of work.**

Use the wheel in the pre-start or take-5: “this is the energy that can kill you, and this is what holds it.” The crew sees the risk before the job starts.

THE MAPPING one method, three touch-points on the process you already run.

Threshold → identify hazards Direct controls → define critical Energy wheel → equip frontline