



## Our Energy Model of Hazards

We understand that good hazard recognition by oilfield workers is a fundamental requirement on every job.

Our *Hazard Spotting*, *JSA* and *Risk Assessment* tools assist people in the oil patch to correctly identify and understand the various hazards that have the potential to injure or kill them – and to put in place the controls to keep people safe.

For us *hazards are things* that have the potential to cause harm.

We believe that those *things* are typically sources of energy – that’s why we’ve pioneered the use of the energy model of hazards in our *Think 6, Look 6* process. You’ll find *Think 6, Look 6* throughout our hazard spotting, JSA and qualitative risk assessment tools.

### Our classification of hazards

Classification of Hazards	
 <b>Kinetic energy</b> <ul style="list-style-type: none"> <li>» Moving/rotating parts</li> <li>» Cutting blades</li> <li>» Pressurized systems</li> <li>» Fall potential</li> <li>» Drop potential</li> <li>» Crushing points</li> <li>» Pinching points</li> <li>» Moving vehicles/plant</li> </ul>	 <b>Biomechanical energy</b> <ul style="list-style-type: none"> <li>» Poor body positioning</li> <li>» Awkward posture</li> <li>» Repeated movements</li> <li>» Static body position</li> </ul>
 <b>Hazardous substances</b> <ul style="list-style-type: none"> <li>» Chemicals</li> <li>» Dusts/fibres</li> <li>» Metallic fumes</li> <li>» Toxic metals</li> <li>» Poisons</li> </ul>	 <b>Electrical energy</b> <ul style="list-style-type: none"> <li>» Powered equipment</li> <li>» Power lines</li> <li>» Static build-up</li> </ul>
 <b>Bio-hazards</b> <ul style="list-style-type: none"> <li>» Animals (e.g., snakes, dogs)</li> <li>» Insects (e.g., wasps, mosquito)</li> <li>» Viruses (e.g., HIV, Rabies)</li> <li>» Bacteria</li> </ul>	 <b>Psycho-social hazards</b> <ul style="list-style-type: none"> <li>» Criminal intention</li> <li>» Terrorist intention</li> <li>» Motivations &amp; attitudes</li> <li>» Deliberate intentions</li> </ul>
 <b>Radiation sources</b> <ul style="list-style-type: none"> <li>» Hot or cold temperatures</li> <li>» Ignition sources (flame)</li> <li>» X-rays</li> <li>» Lasers</li> <li>» Sunlight (UV)</li> <li>» Microwaves</li> <li>» NORMs</li> <li>» Noise</li> </ul>	 <b>Natural hazards</b> <ul style="list-style-type: none"> <li>» Wind (e.g., cyclone)</li> <li>» Hail storm</li> <li>» Tides/currents</li> <li>» Earthquakes</li> <li>» Lightning</li> <li>» Landslide</li> </ul>

### Key Risk Management Terminology

Another big problem in the oil patch is the “waffly” way that many EHS tools use risk management terms. It makes it very difficult to address EHS problems if people are not using EHS tools that clarify the risk management concepts in a technically correct way.

When your people are having safety conversations, preparing Permits or JSAs, sitting in tool-box talks, running complex risk assessments, or writing EHS-Management System documents, it really moves safety forward if you know you all share a common understandable language of risk management.

All of our tools use the *Think 6, Look 6* process to create a clear and common understanding of six key risk management terms.

This helps your people implement good risk-management.

### Key definitions

#### Hazard

A hazard is a source of energy with the potential to cause harm.

#### Triggers

Are conditions, actions or things which can cause a hazard to be released.

#### Incidents

An incident is the loss of control of a hazard.

#### Consequences

Are the negative and unwanted outcomes of an unplanned release of a hazard.

#### Prevention controls

Assist you to prevent an incident from occurring in the first place.

#### Emergency response controls

Assist you to minimize the consequences from a release of a hazard and to make the situation safe again.

For more information about the *Risk Tool Box* please contact:

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