

TEMPLATE EXAMPLE: Safe Design Hazard Register for Engineering Projects

SAFE DESIGN (OR SAFETY IN DESIGN) HAZARD REGISTER										
<p>NOTES: This register records the identification and assessment of hazards associated with the design of a product/asset and assigns action to help ensure that the designed product/asset is safe SO FAR AS IS REASONABLY PRACTICABLE (SFAIRP) for end users, i.e. people that will be interacting with the designed end-product/asset. This differs from an operational hazard register; that would typically focus on site/field/operational hazards, although the two types of hazard register are not mutually exclusive. Many site hazards can be controlled (eliminated, managed) through engineering design.</p>										
ID	LIFECYCLE PHASE	HUMAN-ASSET INTERFACE (i.e. tasks)	HAZARD	CAUSE	CONSEQUENCE	EXISTING CONTROLS	REQUIRED CONTROLS	REASONABLY PRACTICABLE CATEGORY	IS IT SAFE SFAIRP WITH CONTROLS APPLIED?	ACTION REQUIRED
GUIDANCE	<p>Systematically considering each lifecycle phase of the designed product/asset helps to identify interfaces and associated hazards.</p> <p>Lifecycle phases could be:</p> <ul style="list-style-type: none"> • Manufacture • Transport • Construction • Commissioning • Hand-over • Operation • Maintenance • Upgrade • Replace • Decommission • Deconstruct • Disposal 	<p>In each lifecycle phase, how will people interact with the designed product/asset?</p> <p>For example, think of maintenance and operating tasks, and construction and commissioning activities.</p> <p>There are Human-Asset Interface Matrices available to guide/prompt the identification of interface points (tasks).</p>	<p>Throughout an engineering project, hazards can be identified through various sources.</p> <p>Hazards could be identified during structured consultative hazard identification activities (e.g. Safety in Design Reviews, Project Risk Assessments, HAZOPs etc.) or they could simply be identified by individuals or teams as the design/project takes shape.</p> <p>Regardless of the source, it is good practice to record all identified hazards in one place (i.e. this register) throughout a project.</p> <p>Some companies will have a set of Guidewords available for each engineering discipline to help guide/prompt the identification of hazards.</p>	<p>Cause: A pathway or trigger (e.g. event, situation, or condition) for a hazard to result in harm.</p>	<p>Consequence: The undesirable outcome or harm that could result from a hazard.</p>	<p>Are there already controls in place to manage this hazard? Describe them here.</p>	<p>Describe design changes required.</p> <p>OR further control(s) to be applied in Design.</p> <p>Apply the HIERARCHY OF CONTROLS and 'Reasonably Practicable' decision making.</p> <p>To be effective, aim for design intervention as opposed to administrative controls and PPE.</p>	<p>CATEGORISE EACH REQUIRED CONTROL</p> <p>a) Just do it, because it is inexpensive and provides safety benefit.</p> <p>b) The means is grossly disproportionate to the safety benefit throughout asset life, therefore we cannot justify it.</p> <p>c) Further analysis is required to make a judgment.</p> <p>d) More information required.</p>	<p>Seek agreement between participants.</p>	
1.										
2.										
4.										
Etc...										

NOTE: On engineering projects, a Hazard Register would typically be recorded on an Excel Spreadsheet. Companies would likely have their own Hazard Register Template(s)