Part 2 b

Guidelines for Hazard Assessment and Measures Controls

Associated to

Boilers and Fired Systems Facilities

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Integrating OHS System & Process Management System (PSM)

Integration occurs in

- **Design stage of new facility or process**
- **Modification of process**
- **Operational & Safety procedures**
- **Management of Change (MOC)**
- **Incident investigation**
- **Prevention of Incidents/Accidents**
- **Fire/explosion prevention**
- **Emergency Response Plan,** etc.....

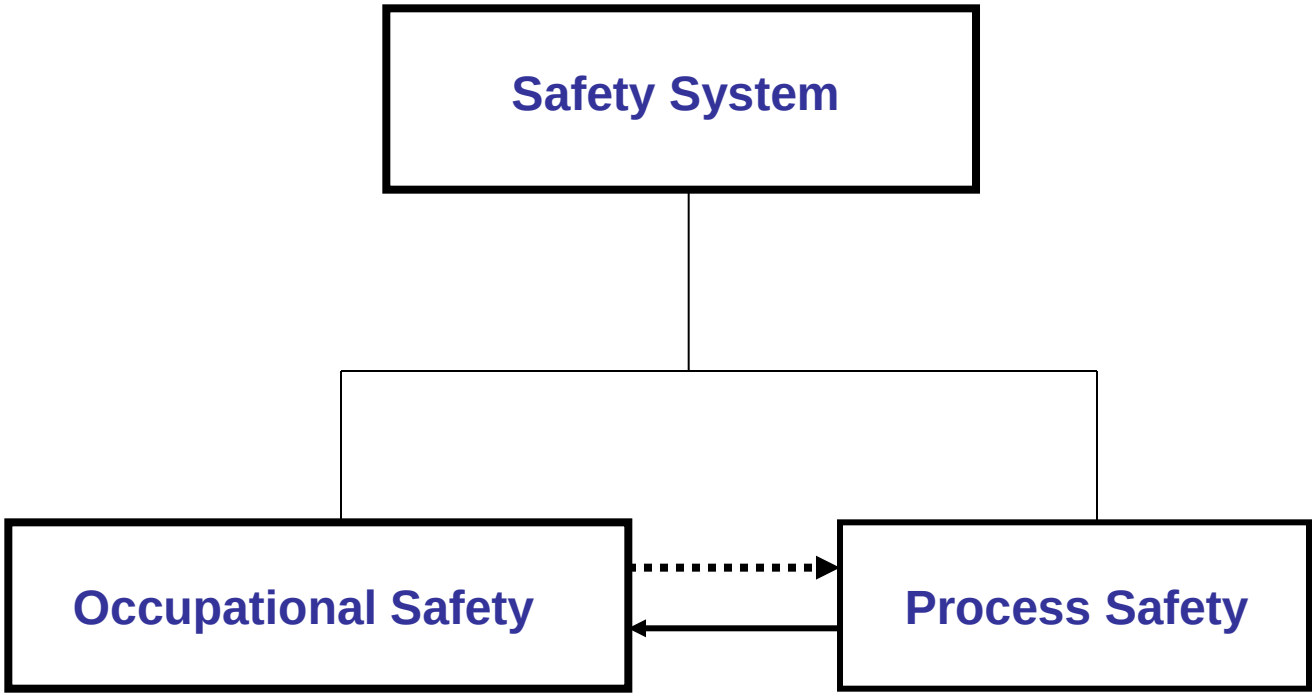
Hazard Assessment

Evaluation of a workplace, or work situation, as to the potential for hazards that an employee may encounter while performing the job.

Risk Assessment

- **Identification, evaluation, and estimation** involved in a situation
- **Comparison of the levels of risks against benchmarks** or **standards**
- **Determination of an acceptable level of risk**

- **The process of risk analysis and risk evaluation; that is, the quantification and ranking of risks**



A facility with a good Process Safety program probably will do well at Occupational Safety, so that line is shown as solid, indicating a stronger link.

Process Safety

The purpose is to find hazards associated with the process being analyzed

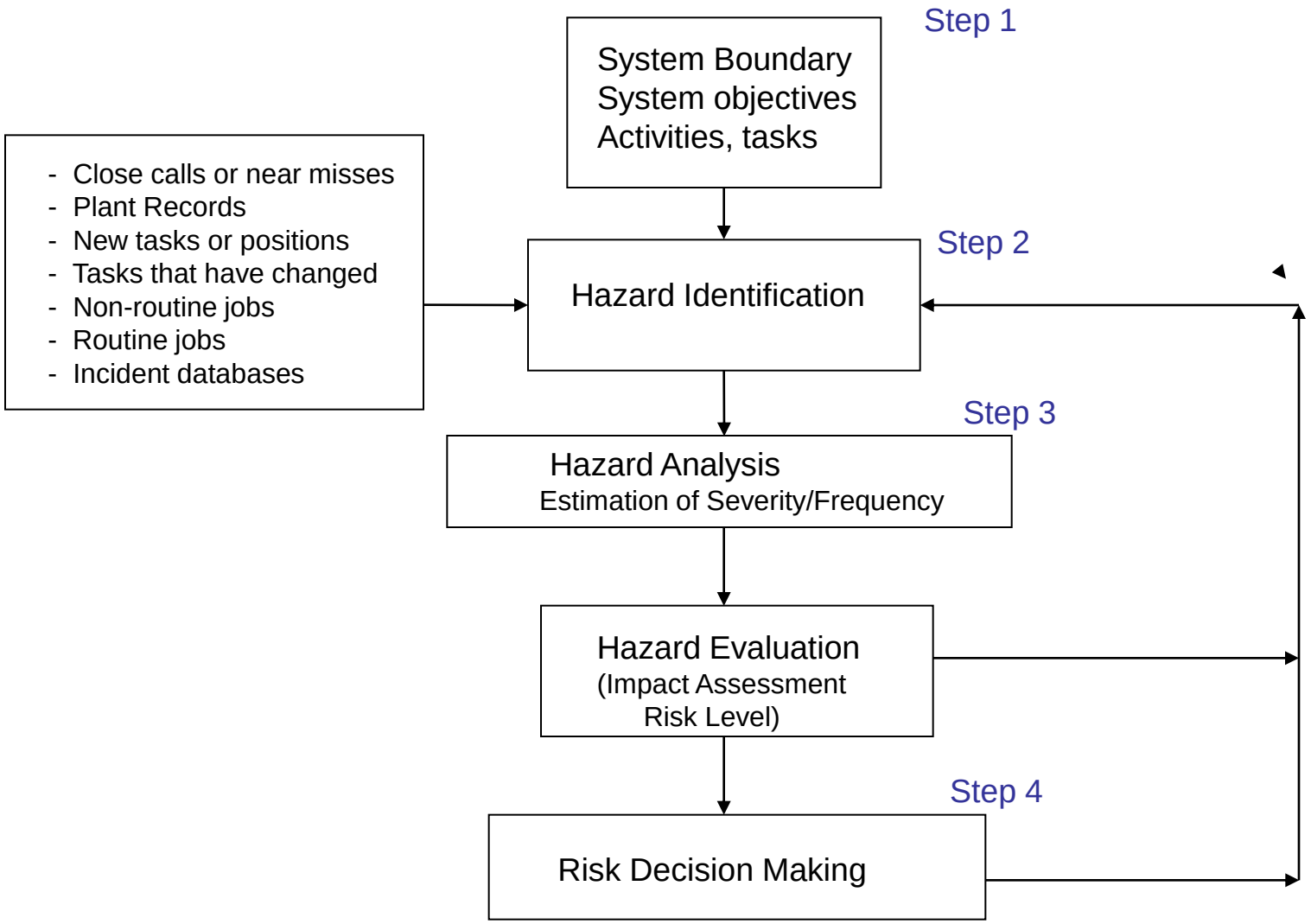
Focuses on processes
Focuses on the ways in which operators and maintenance personnel interact with those processes.

Occupational Safety

Concerned with “normal” safety topics such as lock-out/tag-out, protective clothing, and safe access to equipment.

Focuses on people issues such as their behavior and willingness to take risks.

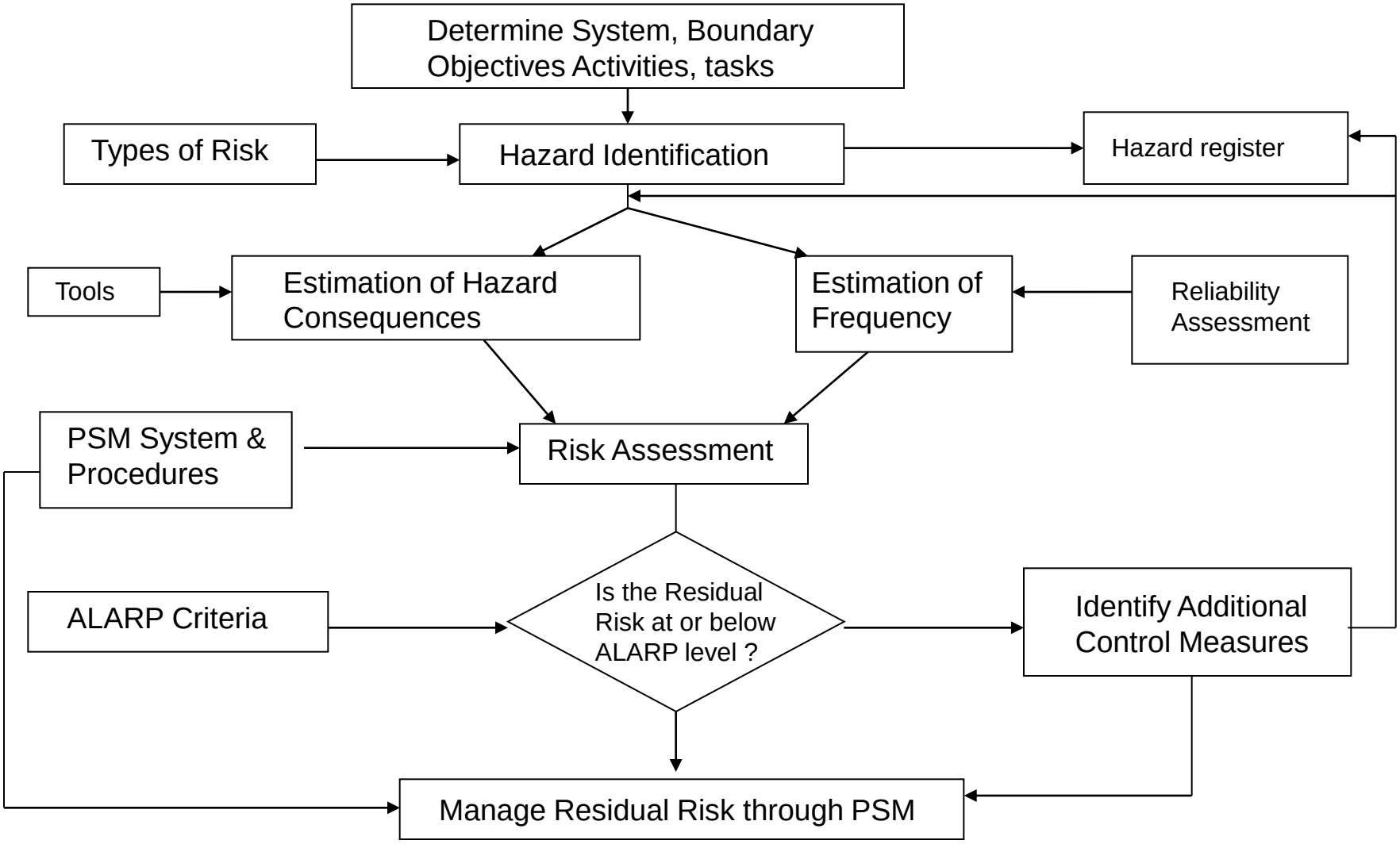
OHS Hazard Assessment Model



OHS Hazard & Tasks Matrix

Tasks / Activities	OHS Hazards													

Process Hazard Assessment Model

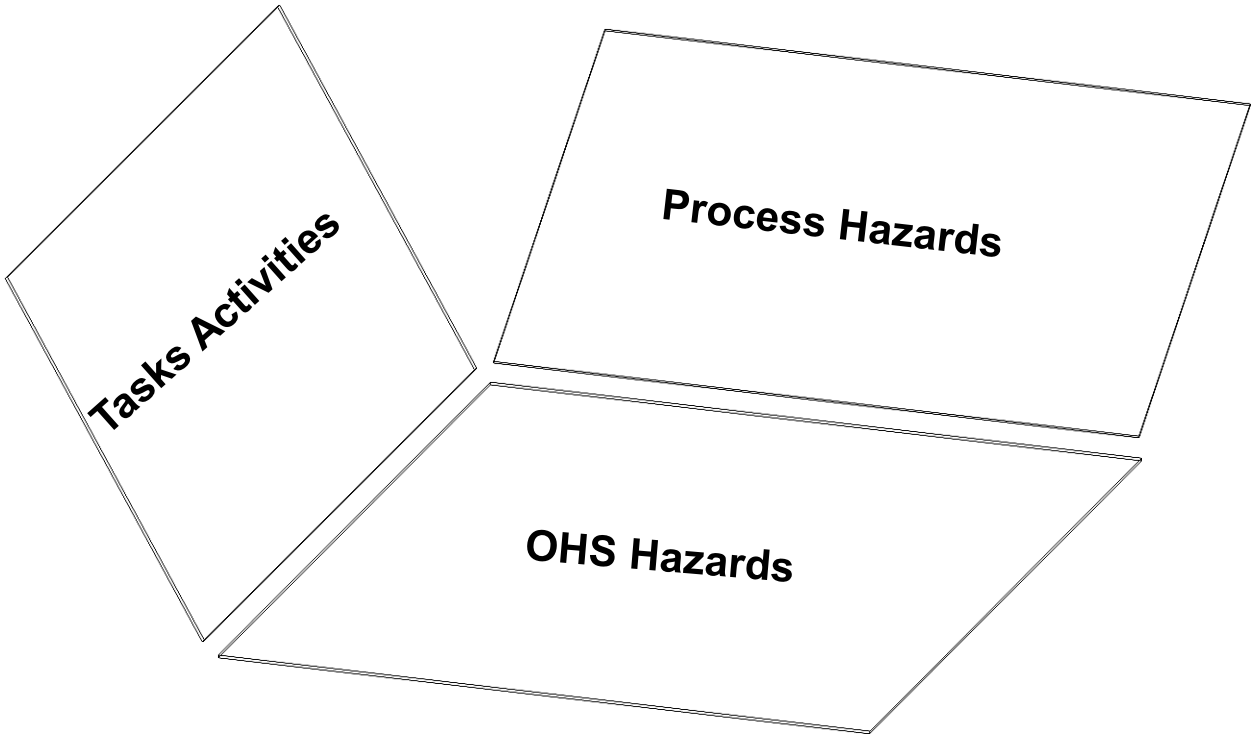


Process Hazard Identification Matrix

		Chemicals	Materials	Utilities	Environmental Receptors	Energy Sources				
						Kinetic / Mechanical	Electrical	Chemical	Thermodynamic	Radioactive
	Chemicals									
	Materials									
	Utilities									
	Environment Receptors									
Energy Sources	Kinetic / Mechanical									
	Electrical									
	Chemical									
	Thermodynamic									
	Radioactive									

Process Hazards & Tasks Matrix

Tasks / Activities	Process Hazards													


Tasks Activities
Process Hazards
OHS Hazards