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IRP 07:
Competencies for Critical Roles in Drilling & Completions

May 2019

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CANADIAN ASSOCIATION OF OILWELL DRILLING CONTRACTORS

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Group Exercise – Discuss these Questions

1. How do you define competency?

2. What is a competency management system?

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Group Exercise – What Did We Learn?

- Industry is not aligned on what competency is
- Industry is not aligned on what a competency management system is or how to implement it

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Why Now?

- The IRP document was last reviewed in 2008,
- since then the regulations have changed and industry is moving to align;
- therefore, IRP 7 needed to reflect these changes.

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Significant Changes to IRP 7

- Technical training, certifications and experience **alone** do not equate to competence
- IRP 7 is no longer a checklist of training and certificates, it is competency based
- Expanded to include all critical roles related to wellsite, not just the supervisor
    - Could include, WSS, Superintendent, Engineers, Wellbore Decommissioning Supervisors, Cementers, Workover Supervisors, Rig Managers, Snubbing Supervisors etc.

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The IRP 7 Advantage

- Empowers employers to recognize and manage competency on their terms
  - Prioritize your development plan
  - Apply resources where they have the most impact
- Aligns stakeholders on personnel development verses sometimes arbitrary training certifications
- Provides a first step to achieve organizational competency, or enhances existing systems

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IRP 7 – Preventing Serious Outcomes

- Outcomes deemed critical for the IRP were:
  - Serious injury or fatality
  - Off-lease affect to the environment
  - Loss of well control/unplanned release, fires, or explosions
- Each organization needs to define what their serious outcomes are:
  - Does this go against our core values or mission statement?
  - Will this get us in the news?
  - Will this put us in front of a regulator?

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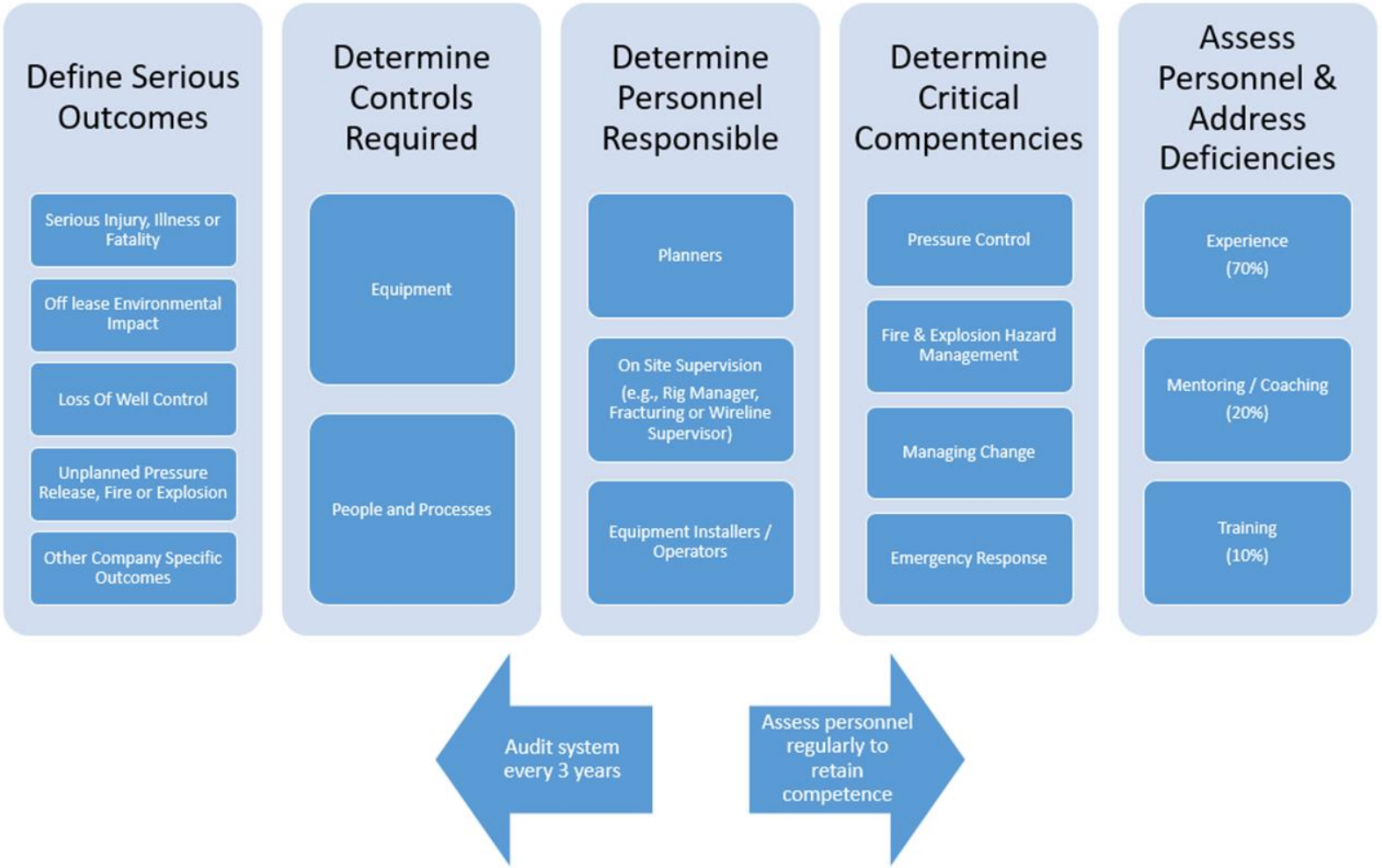
Competency Management Framework



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Example of Competency Matrix – Fracturing Supervisor

Risk	Mitigation "Personnel in critical roles shall:"	Competencies / Qualifications	Competency Applies to Fracture Supervisor? (Y/N)	Fracture Supervisor Example Assessment Suggestions (Examples)	Assessment (result of personnel assessment)	Gaps Identified (result of personnel assessment)	Fracture Supervisor Example Training, Certifications, References (Examples)	Comments
Pressure Control	demonstrate an understanding of pressure hazards and the potential consequences of pressure system failures.	Describing why a compressed gas is more hazardous than a pressurized fluid if containment fails.	Yes	What are the difference in consequences of a loss of containment with liquid vs gas? Demonstrate knowledge that force = P x A			"unable to find a good reference for these" Not in IRP 24 FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	
		Identifying all of the items that have a pressure-related hazard including low pressure systems with a large surface area.	Yes	Understand why there are red zones, swing path hazards etc.			FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	
	demonstrate an understanding of maximum pressure ratings.	Determining the maximum and working pressure ratings of a pressure system. This includes identification of the lowest rated component in the system.	Yes	What is your lowest pressure rated item in your system, how does that item affect your pressure rating? May discuss well classifications, wellhead requirements, BOP requirements, circulating system requirements and limitations.			Lakeland College WSS Certificate FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned. DME inventory and confirmed color coding with pressure rating.	
	demonstrate an understanding of the controls required to prevent worker exposure to pressure release	Determining whether the pressure components have the appropriate certifications and are being used as per OEM expectations, local jurisdictional regulation, IRPs and employer policies.	Yes	(e.g. Relief valves, piping restraints, remote actuation, exclusion zones). Are you aware if the rig has the required certs? Are they current? What is the pressure relief valve set at for pumping unit? Remote BOP controls as required by regulation. Frequency of pressure testing for hoses including regulatory requirement versus company preference.			Alberta Regulation 49 / 2006 has some info on pressure relief but it's not very readable. Any suggestions? https://www.technicalsafetybc.ca FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned. Pipe restraint checklist	
		Identifying the minimum controls required by local jurisdictional regulations, IRPs and employer policies.	Yes				Which regs / training? FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	
	demonstrate an understanding of pressure testing of pressure systems.	Identifying the pressure testing required by local jurisdictional regulations, IRPs and employer policies.	Yes	What equipment requires a pressure test? To what rating?			AER Directives 36 & 37 IRP 24 FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	
		Describing how to perform a safe pressure test of a pressure system.	Yes	An example of safe and successful pressure testing (i.e. if testing line pipe personnel should be away from piping, ensure equipment rating prior to pressure testing, length of test).			FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	
		Identifying whether the pressure test was successful.	Yes	An example of safe and successful pressure testing (i.e. if testing line pipe personnel should be away from piping, ensure equipment rating prior to pressure testing, length of test).			FLHA Job Program/Pumping procedures overview, DOS Risk Review, Certification of all DME review, PRV certifications/Kickouts functioned.	

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Example of a competency Matrix - Capstone

Training	*Competency*	*Critial Role*	*Serious Outcomes*	*SIF (Critical)*	*Term Required from start of position*
"Working in the Line of Fire" - Module	General work with or around mobile equipment			C5	Prior to Starting Work
	Understanding of potential causes of a serious injury, illness or fatality on site	Multiple Supervisors	Serious Injury/ Illness or Fatality		
	Working in and around hazardous energy sources			C5	Prior to Starting Work
Basic Rigging/ Overhead Crane	Hand signals for hoisting and lifting with overhead crane			C5	Subject to need
CAODC Rig Assessor Training	CAODC Competency Assessments	Rig Supervisor	Multiple Serious Outcomes		6 Months
Capstone Employee Orientation	Drug and Alcohol testing			C5	Prior to Starting Work
	Fatigue			C5	Prior to Starting Work
	Fit for Duty awareness			C5	Prior to Starting Work
	Job Physical Demands			C4	Prior to Starting Work
	Mental and Physical stress			C3	Prior to Starting Work
	Performing field related tasks for Capstone			C5	Prior to Starting Work
	Performing office/ Shop related tasks for Capstone				Prior to Starting Work
	Use of appropriate PPE			C5	Prior to Starting Work
Capstone Hazard & Incident Management	Determine SIF potential				Prior to Starting Work
	Incident management				Prior to Starting Work
	Investigate incidents				Prior to Starting Work
Capstone Hazard and Incident Reporting module	Ongoing hazard identification				Prior to Starting Work

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What Can You Do?

- Read IRP 7
- Determine which of the IRP 7 outcomes are applicable to your organization
- Determine who is responsible for the controls
- Can you positively respond to the IRP statements in the document?
- Using this process, determine whether your organization has additional serious outcomes to address

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IRP 7 Summary

- The new IRP 7 is a SOLUTION not a PROBLEM
- IRP 7 will not replace organizations current system, rather provide insights to enhance their systems
- Resource tools are available:
  - http://www.energysafetycanada.com/resources/resourceslist/industry-best-practices.cfm

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Questions?

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