CBTA

CATEGORY A

MLV Site CBTA Questions

SP/TRN/TM66

Candidate's Name: _____

Candidates Signature: _____

Assessor's Name: _____

Assessor's Signature: _____

Date Completed: ☐ CBTA ☐ Reassessment: _____/_____/_____

For first time candidates, the entire CBTA is to be completed. For the purposes of re-assessment only the demonstrative section requires completion.

Written

Question	Answer	Assessor check
Main Line Valve Site System	Reference: 9002-010-PID-0001	
Draw a process flow diagram (PFD) of the Cooper Energy MLV Site Production System. Include in your PFD MLV site componentry: • High pressure gas offshore pipeline • The Main Line Valve (MLV) • Onshore Umbilical Termination Assembly (OUTA) • MEG Filters • Interlock panel to enable line-ups between subsea trees and MEG injection pumps • Umbilical from MLV site to the subsea trees • Chemical injection lines from the Iona Gas Plant (IGP) • Onshore high pressure gas line to IGP • Identify the flows • Identify pressure and temperature variations along the flow path • PSVs and where they let down to • Identify major process control valves including flare valves and XSVs Include isolation valves		

Hydraulic Power Unit (HPU)	Reference: 9002-015-CAE-0001 & Cameron Manuals & Cameron HPU Flow Diagram (SK-066011-21-01) & GP/CA/PC24/WI05	
Describe the HPU		
What type of hydraulic fluid is used in the system		
What is the HP system maximum hydraulic oil working pressure		
What are the Start and Stop set points for the HP pumps		
What is the Very Low Pressure HP oil STOP setting		

Oral

Question	**Answer**	**Assessor check**
Main Line Valve Site System	Reference: 9002-010-PID-0001 & GP/CA/PC01 & GP/CA/PC24	
Using this PFD talk through the process flow and explain to your assessor the purpose and function of each piece of equipment shown as well as the location of the following components: • Master Control Stations (MCS) • Electrical Power Unit (EPU) • Uninterruptable Power Supply (UPS) • Emergency Generator • Hydraulic Power Unit (HPU) • Remote Operator Station (ROS).		
Critical Safety and Process Controls	Reference: GP/CA/PC01 & UGS-PC-001	
Explain to your assessor the 3 different types of shutdown systems and their consequences: • Emergency Shut-Down Systems (ESD) • Process Shutdown System (PSD) • Individual Well Shut-downs. (IWS)		

Explain the difference between a PSD 1 and a PSD 2		
Hydraulic Power Unit (HPU)	Reference: 9002-015-CAE-0001 & Cameron Manuals & Cameron HPU Flow Diagram (SK-066011-21-01) & GP/CA/PC24/WI05	
What interlocks will prevent the pumps from starting		
What systems are supplied by the hydraulic pumps		
The hydraulic oil tank is in 2 parts. What are the parts and what is the function of each		
What is the function of the Circulating Oil Pump		
How long should the pump run on Automatic		
How is the HPU Reset following a PSD		
How is the HPU reset following an ESD 2		
MEG Filters	Reference: GP/CA/PC24/WI15	
Explain what causes filter blockages		
Explain the associated hazards while replacing a filter cartridge.		
Power System	Reference: GP/CA/PC24 & GP/CA/PC24/WI01	
Candidate explains to assessor the relationship between Mains power, UPS, EPU, and Generator supplied power systems.		
Main Control Stations (MCS)	Reference: Cameron Manual & GP/CA/PC01	
Explain the differences between the 'users': • Monitor • Operator • Supervisor • Engineer • Administrator.		
Explain the function of the PLC		
Monitoring MLV Site Operations	Reference: GP/CA/PC01	
Identify consequences if CP left off.		

Demonstrative

Question	Assessor check
Hydraulic Power Unit (HPU) (MLV site)	
Locate the MLV HPU	
Locate the hydraulic oil panel	
Locate the HP pumps	
Locate the HP and LP oil filters	
Locate the Circulating Oil Pump	
Locate the Return and Recirculation Oil Filters	
What indicates that these filters require cleaning	
MEG Filters (MLV site)	
Demonstrate a MEG Filter change out including correct management of waste product.	
Demonstrate placing an off-line filter on-line using the work instruction	
Demonstrate taking an on-line filter off-line using the work instruction	
Demonstrate replacing a filter cartridge using the work instruction	
Demonstrate correct disposal of waste.	
Power System (MLV site)	
Demonstrate how to identify which power source is 'on line' and interpret alarms.	
Using the latest Work Instruction with your assessor Start / Stop the Genset explaining each step of the procedure. (Simulation is acceptable).	
Main Control Stations (MCS) (MLV site or ROS))	
Using the MCS Navigate through the control system schematics page by page explaining purpose and function of all equipment, flows and controls on schematics to assessor.	
Navigate to the alarm summary page and interpret to the assessor: Process variable when alarm was actuated / tag number (relate this to the schematic) • Identifying whether hi/lo alarm • When the alarm was accepted? • What is the current PV alarm point? • What is the priority of the alarm? (Lo/Hi/Emergency) What would be your response to the alarm?	
Monitoring MLV Site Operations	
Demonstrate operating the Inergen Fire Suppression System (FSS)	

• Identify and interpret status indicator
• Identify release triggers
• Explain when you should de-activate the FSS and how you confirm it is de-activated
• Identify how to re-activate
• Identify what your response is if the system is activated:
  ○ When you are in the equipment room
  ○ When you are not in the equipment room.	

Demonstrate routine monitoring and visual checks performed on all equipment at the MLV site. • Describe what you are looking for • Allowable max/min parameters Response if PV is outside these parameters	
Identify Cathodic Protection status on/off.	

The candidate is assessed as being:

☐ Competent

☐ Not yet competent

Areas requiring improvement:

For first time candidates only:

Department Manager's name: _____

Department Manager's signature: _____

Date: _____/_____/_____