COCHARD	
	S. e.
Candidate's Name: Candidates Signature:	СВТА
	Air
	SP/TRN/TM85
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Candidate's Name:	
Candidates Signature:	
Assessor's Name:	
Assessor's Signature:	
Date Completed: 🗹 CBT A 🗆 <u>R</u> eassessment:	

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

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Written

Question	Answer	Assessor check
What types of air does lona site have?	Service air, instrument air, Compressor start air.	1
How many air compressors are at the lona site and what are the unit numbers?	Three air compressors C-721/722/723	10
Why do we have different requirements for air?	<ul> <li>Service Air</li> <li>Service air is provided for both utility air usage (air-powered tools, air powered pumps etc) and for start air for the main gas compressors. The service air header is controlled at a pressure of 800 krag by a self-contained regulator, PCV-7427. This maintains the pressure in the service air header.</li> <li>Instrument Air</li> <li>Air flows from the Service Air Receiver to the Air Orier Package, X-721 which dries the air to a water dew point down to -40 °C but mainly runs between -20°C to 30°C. The air to the drier is controlled at a pressure of 690 kPag by a self contained pressure regulator, PCV-7431. The air then enters the Instrument Air Receiver, V-721 from which the instrument air distribution header is supplied.</li> <li>Compressor Start Air</li> </ul>	

Start air is required for starting the main gas compressor engines. Air from the Service Air Receiver flows to the Start Air Receiver. V-724/726 for the engine to be	
started. The vessel is pressurised to 1,250 kPag before the air is used for starting	
the engine. Any water build-up in the Start Air Receivers is drained manually into	
buckets and deposited into the Wash Down Sump (T-401) or the Engine Drain	
Sump (T-403) for proper disposal	
Driver (electrically) , compressor, dryers (mole sieve media X-721), regulators,	1.2
receivers.	
Instrument air is dried via X-721 to -40 but mainly runs around -20/-30. This is	105-
required to prevent icing and moisture issues in plant instruments.	
Repeneration- Air driers contain a mole sieve bed to remove water from the air.	
These ords become saturated in water and require to be regenerated, flow is	
reversed using a small flow of dry air to strip the build-up of moisture in the media	
bed to atmosphere.	
Absorption- The mole sieve beds contain media which creates a torturous path for	
the airflow. The media is of a porous nature which leads to the moisture being	
Over time the media becomes saturated in absorption (on line) mode and is	
automatically switched over into regeneration while the offline bed is brought into	
service. There is always one bed in absorption and the other in regeneration.	
	<ul> <li>Service Air Receiver flows to the Start Air Receiver, V-724/726 for the engine to be started. The vessel is pressurised to 1,250 kPag before the air is used for starting the engine. Any water build-up in the Start Air Receivers is drained manually into buckets and deposited into the Wash Down Sump (T-401) or the Engine Drain Sump (T-403) for proper disposal</li> <li>Driver (electrically), compressor, dryers (mole sieve media X-721), regulators, receivers.</li> <li>Instrument air is dried via X-721 to -40 but mainly runs around -20/-30. This is required to prevent icing and moisture issues in plant instruments.</li> <li>Regeneration- Air driers contain a mole sieve bed to remove water from the air. These ords become saturated in water and require to be regenerated, flow is reversed using a small flow of dry air to strip the build-up of moisture in the media bed to atmosphere.</li> <li>Absorption- The mole sieve beds contain media which creates a torturous path for the airflow. The media is of a porous nature which leads to the moisture being stripped from the air flow.</li> <li>Over time the media becomes saturated in absorption (on line) mode and is automatically switched over into regeneration while the offline bed is brought into</li> </ul>

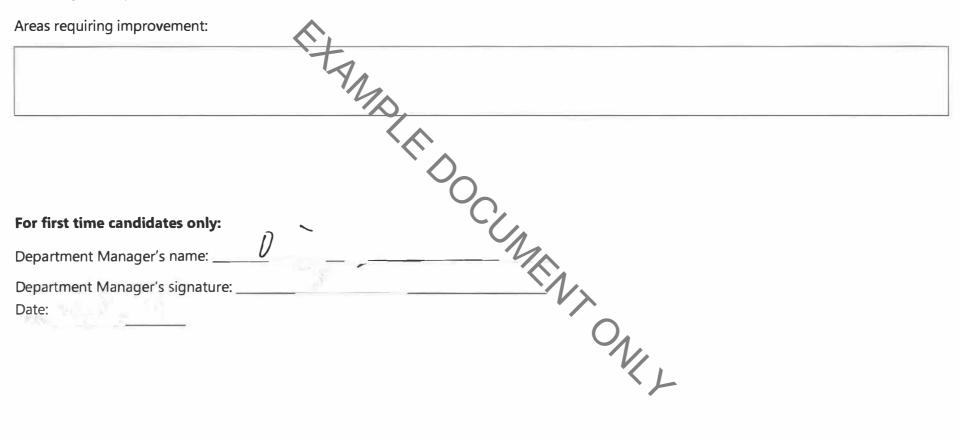
## Oral

Question	Assessor check
Explain the terms lead and lag.	Lead and Lag is an expression used when explaining a mode of operation. Lead means that unit is online in operation. Lag is a secondary unit
Mr.	in the same process stream that is on standby, ready to start if the lead unit fails.
Demonstrative	
Question	Assessor check
Demonstrate a unit and breaker reset after a power dip.	
Conduct a set of reads on the air compressors and explain why we drain the ail receiver C-721?	
MENT	k.

## The candidate is assessed as being:



Not yet competent



ETAMBLE DOCUMENT