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**Cochin Pipeline**

**Cochin B Station DRA**

**Controls Description of Operation**

**Change Record**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Author** | **Version** | **Change Reference** |
| 3/13/2014 | Eric Setka | 1.0 | Original |
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# Tank A / Tank B

|  |  |
| --- | --- |
| ID | 1 |
| Function | Tank Level and Mixer Monitoring |
| Instrumentation | |
| Tanks A/B   * Level Transmitter (LTA/LTB) * Mixers A/B | |
| PLC Control Strategy | |
| Control: Start/Stop DRA | |
| Local Operator Interface | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display:     - Level Transmitter A     - Level Transmitter B     - Tank Mixer A on/off     - Tank Mixer B on/off | |
| SCADA Functions | |
| Display:   * + - Level Transmitter A     - Level Transmitter B     - Tank Mixer A on/off     - Tank Mixer B on/off | |
| NOTES: | |
|  | |

# Charge Pumps

|  |  |
| --- | --- |
| ID | 2 |
| Function | Charge Pump Monitoring |
| Instrumentation | |
| Charge pump A / Charge Pump B   * Charge pump A (PRV PA) * Charge pump B (PRV PB) | |
| PLC Control Strategy | |
| Control: Start/Stop DRA | |
| Local Control Panel | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display     - Run status on/off   + Control     - N/A | |
| SCADA Functions | |
| Display   * Charge pump A run status on/off * Charge pump B run status on/off   Control   * Start/Stop DRA | |
| NOTES: | |
|  | |

# Tank A / B Injection Valves

|  |  |
| --- | --- |
| ID | 3 |
| Function | Valve Monitoring |
| Instrumentation | |
| Tanks A/B Injection Valves   * MOV A * MOV B | |
| PLC Control Strategy | |
| Control: DRA Start/Stop | |
| Local Control Panel | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display     - MOV A Open / Close     - MOV B Open / Close   + Control     - N/A | |
| SCADA Functions | |
| Display   * MOV A Open / Closed * MOV B Open / Closed   Control   * DRA Start/Stop | |
| NOTES: | |
| 1. | |

# DRA Discharge Pressure

|  |  |
| --- | --- |
| ID | 4 |
| Function | DRA release valve monitoring |
| Instrumentation | |
| DRA Discharge Pressure   * MOV D | |
| PLC Control Strategy | |
| Control: Start/Stop DRA | |
| Local Operator Interface | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display: MOV D Open/Close   + Control: N/A | |
| SCADA Functions | |
| Display:   * MOV D Open/Close   Control:   * DRA Start/Stop | |
| NOTES: | |
| 1. | |

# Injection Pump

|  |  |
| --- | --- |
| ID | 7 |
| Function | DRA Injection |
| Instrumentation | |
| Injection Pump (P3)   * Injection pump | |
| PLC Control Strategy | |
| Control: Start/Stop DRA | |
| Local Control Panel | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display     - Injection pump on/off | |
| SCADA Functions | |
| Display   * Injection pump on/off   Control   * Start/Stop DRA | |
| NOTES: | |
|  | |

# Local Discharge Pressure

|  |  |
| --- | --- |
| ID | 8 |
| Function | Pressure monitoring |
| Instrumentation | |
| Pl2   * Indicates pressure between the injection pump and MOV D | |
| PLC Control Strategy | |
| Control: N/A | |
| Local Operator Interface | |
| Operator Interface Terminal (OIT):   * Local SCADA - PC   + Display:     - Displays pressure in PSI   + Control: N/A | |
| SCADA Functions | |
| Display:   * Displays pressure in PSI   Control: N/A | |
| NOTES: | |
|  | |