SECTION 17400

Control Narrative

***[\*Note to the Engineer: Tank leak detection shall be tied to the District’s SCADA system. Incorporate language for SCADA into this specification. This section is to be prepared by the Engineer. This section is to provide all of the information required for the PCIS supplier to understand how to properly program the PCIS to monitor and control the facility, and to allow the Start-Up and Commissioning team to test and commission the system. The Control Narratives are to identify all functions related to Local Hand Mode, Local Auto Mode (if appropriate), SCADA Manual (Hand) Mode, and SCADA Auto Mode of operation for each process loop. The project P&ID’s are to identify the same process “loops” as identified within this section. Below is a sample. \*]***

# GENERAL

## DESCRIPTION

### This section describes how the system is to function. The purpose of this section is to clearly describe how each process loop (as shown on the P&IDs) is to operate. This narrative identifies by element numbers how each loop is to:

#### Function for all modes of operation.

#### Functions of the PCIS related to monitoring, controlling, and alarm functionality & how the PCIS is to respond to equipment/device failure and/or process errors and the fall-back positions (failure transfers, etc.) for the process loop.

## RELATED WORK SPECIFIED ELSEWHERE

### Section 01810 – Start-Up, Testing and Commissioning

### Section 17000 – General Requirements for I&C System

### Section 17100 – Input/Output Signals List

### Section 17300 – Remote Terminal Unit (RTU/TCP)

## Process Loop Name – P&ID Sheet Number

### Abstract – [Engineer to provide a written description of what the Process / loop does.]

### Related Equipment and Instruments

#### [List each instrument or device and its associated tagname.]

### Local Control

#### [For each instrument/device provide the following.] (Equipment/item tagname)

#### Identify functions for Local Manual Mode and Local Auto Mode (if applicable)

##### Local Control Devices:

###### ON/OFF selector switch at the mechanism

##### Hardwired Interlocks:

###### None

##### Local Process Indicators and Alarms:

###### RUN status

###### OVERLOAD alarm

### SCADA/DCS Control

#### [Instrument/Device] MANUAL (HAND) mode:

##### Explain how SCADA Manual mode works.

#### [Instrument/Device] AUTOMATIC mode:

##### Explain how SCADA AUTOMATIC mode works.

#### [Repeat for each instrument/device]

### Fault Logic

#### [Clearly identify fault logic for failure scenarios.]

### SCADA/DCS Level

#### Operator Adjustable Setpoints:

##### [Describe or list each setpoint and provide an initial value]

#### Control:

##### [Describe or list each control element contained in the HMI]

#### Process Indicators and Alarms:

##### [List each alarm and its tagname.]

##### [Fill in the table below with appropriate values.]

|  |  |  |  |
| --- | --- | --- | --- |
| **DESCRIPTION** | **SETPOINT** | **ACTION** | **Alarm Priority** |
| Alarm – Tagname | Value | Alarm | Value |
| Alarm – Tagname | Value | Alarm | Value |
| Alarm – Tagname | Value | Alarm | Value |

# pRODUCTS (nOT uSED)

# eXECUTION (nOT uSED)

END OF SECTION