M13 VA1 Gate and VW1 Window Valves Control Summary

There are 3 units involved in the control and interlocks of M13 VA1Gate and VW1 Window valves:

- **0473** Quad Local/Remote Contact Closure Controller
- **0465** Interlock Summary Unit
- **0958** M13 (Upgrade) Gate and Window Valve Controller

Gate Valve Operation:

The Gate Valve operation will both operate the gate valve (GV) and the window valve (WV). However, you will only need to actuate the GV and the WV would just be a slave valve.

When GV is actuated to OPEN, the WV will automatically CLOSE and should be in closed position before the GV opens. And when the GV is actuated to CLOSE, the WV will automatically OPEN after the GV is in closed position.

GV can be locally OPEN/CLOSE at the **0473** Quad Local/Remote Contact Closure Controller. GV can also be remotely actuated and both valve's positions can be monitored by CCS.

Window Valve Operation:

In this mode, ONLY the WV operates to OPEN/CLOSE. WV will ***not close*** if the GV is also CLOSED. See table 1 for GV and WV Positions.

Local/Remote toggle switch, **WV OPEN** and **WV CLOSE** momentary push buttons are located at the front panel of the **0958** controller for local control. WV (OPEN/CLOSE) commands can be remotely activated and monitored by CCS.

NOTES:
1. On Power Failure:

Gate Valve Closed:	Valve remains closed
Gate Valve Open:	Valve closes
Window Valve Closed:	Valve remains closed
Window Valve Open:	Valve closes

2. On Compressed Air Failure:
   -Gate valve position is undefined and window valve will close.
   Above specs are inherent to the valve's operation.
3. After power is restored, the GV will remain closed and WV will open and control is in Gate Valve mode operation.
4. **0958** controller is configured so that ONLY one valve is CLOSED except on power and compressed air failure.
5. The **0958** controller is not interchangeable with Steve Dunbar's **0953** Controller.

6. There is no power at **0465** if it is not connected to the **0958** controller and in the

absence of the 24VDC at the **0953** controller. Power is also cut off at the **0958** controller if both WV and GV valves are not connected to it.

Table 1. Gate and Window Valve Function Table

Sequence of Events	Commands	GV Position	WV Position
1	Power Down	Close	Close
2	Power Up	Close	Open
3	"Open" GV	Open	Close
4	"Open" WV	Open	Open
5	"Close" WV	Open *	Close
6	"Open" WV	Open	Open
7	"Close" GV	Close	Open **
8	"Close" WV	Close	Nothing Happens
9	"Open" GV	Open	Close
10	Interlock Failure	Close	Open

* GV will momentarily CLOSE and will OPEN again.

** WV will momentarily CLOSE and will OPEN again.