Emergency Shut Off System

Shut off chlorine valves BEFORE a leak becomes a reportable incident (3/4 second)
Did you know that in the majority of all chlorine leak incidents, major consequences could have been avoided by quickly shutting off the chlorine container valve?

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The **Eclipse ACCESS II Actuator** can be mounted to chlorine cylinder or ton container valves in virtually any standard configuration.
Valve Accessibility
The unique design of the **Eclipse ACCESS II Actuator™** allows personnel to open or close the valve manually while the actuator is installed on the valve and ready to operate. The actuator may be tested in place. No other actuator offers this important feature.

Tested
The **Eclipse ACCESS II Actuator™** may be fully tested under “real world” conditions at each cylinder change to verify proper operation.

Scrubbers
Other safety systems, such as scrubbers cannot be tested to insure performance in the event of a discharge.

Remote Operation.
Shut off a leak without having to enter a toxic environment by means of a gas detector, local panic button, remote kill button, telephone, fire or seismic alarm etc.

Hexacon Controller™
Powers up to six actuators sequentially from a single control panel.
Specification: Emergency Shut Off System Eclipse ACCESS II Actuator Tm Chlorine Cylinder and Ton Containers

1. Scope
This specification describes the Eclipse ACCESS II Actuator Tm Emergency Shut Off System for Chlorine Cylinder and Ton container Valves as manufactured by Halogen Valve Systems, Inc.

2. TYPICAL SPECIFICATION FOR CHLORINE VALVE EMERGENCY SHUT OFF SYSTEM US PATENT 5,588,637

An emergency shut off device shall be provided for each of the containers in the chlorine feed system. Emergency shut off system shall consist of a battery driven actuator that acts directly upon the cylinder or ton container valve stem (appended ball valves or other “plumbed apparatus” shall be unacceptable). The actuator shall mount upon the valve and yoke assembly by means of a clamping mechanism so as to be easily installed and removed with no special tools necessary.

With the actuator in place, the design shall provide an extension through and beyond the actuator such that a standard chlorine wrench may be applied to the extension to manually open or close the valve. Under no circumstances shall the design impede manual closure of the valve while the actuator is installed on the valve. The design shall also provide access for tightening valve packing nut and yoke assembly while the actuator is in place.

The actuator shall be constructed of chlorine compatible, corrosion resistant materials and deliver 40-50 Ft-Lb. of torque in the closing direction only. Upon cessation of any manual valve operation, the actuator shall automatically return (default) to the “armed ready” mode (to power close).

Power for the operation and control of the actuator shall be provided from an uninterruptable electric battery. Secondary or “backup” power supplies that require switching and controls shall not be acceptable. The battery power source shall have sufficient capacity for the full operation of the valve for a minimum of three days after the loss of electric power. In the event of a sustained loss of charging power, the microprocessor shall detect a declining battery charge to initiate valve closure while sufficient power remains to close the valve.

The control panel shall be contained within a NEMA 4X electrical enclosure, connected to the actuator by means of a cable 12 feet in length (standard, consult factory for other lengths). The microprocessor based controller shall accept signals from sources such as gas detectors, seismic or fire sensors, remote station alarms and manual switches to automatically close the valve. The microprocessor shall control the actuator via solid state relays with no moving parts. The control panel shall have 3 status lights to indicate that the system is “Armed/Ready”, “Sufficient battery power”, and “Battery Charging”. Upon activation of the actuator, the control system shall provide an alarm contact (0.5 amp @ 24V dc/ac) to indicate the valve closure cycle.

A quantity of ___(1 is standard) Emergency “Panic” buttons shall be connected to the control panel and mounted ___(inside and/or outside) the chlorine room to allow for operator initiated emergency closure. These emergency buttons shall also function as a test switch to provide a full cycle test of the actuator under installed and loaded conditions for each and every cylinder change out. Installation and wiring of emergency kill button by others. Each valve actuator system shall also include a wall mounted storage bracket and a standard chlorine cylinder valve wrench. Chlorine emergency shut off system shall be by Halogen Valve Systems, 17961 Sky Park Circle, Suite A, Irvine, CA 92614 USA or equal.

Closing Torque ------ 40-50 ft.-lb.
Charge @ 120 v ac -------0.5 amp
Charge (solar) @ 12v dc0.34 amp
Battery Rating--------7 amp-hr.
Relay Output @ 24v AC/DC0.5 amp
Actuator Weight (approx.)---10 lb.