NRC INSPECTION MANUAL

PART 9900: TECHNICAL GUIDANCE

STS_SURV.TG

STANDARD TECHNICAL SPECIFICATIONS
SURVEILLANCE SECTIONS - LOCKED OR OTHERWISE SECURED COMPONENTS

A. PURPOSE

To provide guidance to the IE inspector regarding the term "locked valves" as used in the surveillance sections of Standard Technical Specifications (STS), other TS, and the SAR.

B. DISCUSSION

The STS surveillance section generically requires that certain systems be demonstrated operable at least once per XX days by verifying that each valve (manual, power-operated, or automatic) in the flow path (or servicing safety-related equipment) that is not locked, sealed, or otherwise secured in position, is in its correct position. Likewise, the TS or SAR often refer to a valve as being locked open or locked closed.

To be locked, according to Webster's New World Dictionary, is to be "fastened by means of a lock." A lock is defined in the same reference as: "(1) a mechanical device furnished with a bolt and usually a spring, for fastening a door, strongbox, etc., by means of a key or combination," or "(2) anything that fastens something else and prevents it from opening, turning, etc." Whereas these definitions should be sufficient to preclude a licensee from using a single tag on the handwheel as a lock of a manually operated valve, they do permit a variety of mechanical devices to serve the purpose of a lock provided they prevent opening, turning, etc.

The following positions are applicable to items specifically designated in the SAR or TS as being locked. Manually or power-operated components, for which requirements are not specified in the TS or the SAR, may be controlled by whatever procedures the licensee has developed for that purpose.

The position IE inspectors should take regarding the locking of a component in position is as follows:

1. Manually-Operated Valve

a. The valve should be physically restrained from moving. The methodology by which the restraint is removed should be under administrative control. A key or combination lock is the preferred methodology, but the use of a "sealing" technique which will provide

evidence of unauthorized manipulation is acceptable (e.g., cable secured by means of a lead seal).

b. A tag or similar device on a valve handwheel does not meet the requirements for a locked valve in a fluid system important to safety. Likewise, simply removing the valve handwheel without securing the stem in position is inadequate.

2. Power-Operated Valve

Electric power should be removed from the motor operator by positive action, such as removing fuses or racking-out circuit breakers in circuits supplying power to the components. Administrative controls should include additional provisions such as tagging the fuse holder or box or the breaker, and specific instructions as to what steps must be taken to restore power to the components involved.

This interpretation is in response to a request from Region IV, and was developed after discussions with K. V. Seyfrit, DROI, T. A. Ippolito, NRR, and W. M. Morrison, SD. J. I. Riesland is the primary Headquarters contact regarding this matter.

END