TR 2021-37 – GM – Verification of Valve Position

TR Number	**21-37**
Primary Reference	192.605(b) - Maintenance and Normal Operations
Purpose	Consider GM enhancements to GM 605 2.2(f) Field Identification of Valves, 2.4 (b) start up and reinstatement of service lines, and possibly others based on 2017 NTSB report.
Origin/Rationale	NTSB PAB 1903, Natural Gas Explosion at Educational Facility Minneapolis, Minnesota, August 2, 2017. During replacement of large inside meter assembly crew disassembled pipe based on belief that a valve was closed, gas was released into building, and explosion resulted.
Assigned to	O&M/OQ Task Group

Note: Revisions are shown in yellow highlight and red font.

Section 192.605

2 MAINTENANCE AND NORMAL OPERATIONS

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2.2 Availability of construction records, maps, and operating history.

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(f) Field identification of valves.

(1) Valve identification criteria should be established.

(2) Each operator should have available sufficiently accurate records (including field location measurements) to readily locate valves and valve covers.

(3) Where valves are located in a valve cluster or in close proximity to valves of other operators, in addition to records and field location measurements, the following are also recommended.

(i) A valve identification system should be developed so that each valve will have a unique set of numbers or letters, or both, which is keyed to the records or mapping system.

(ii) For above ground and vault applications, a readily observable and durable code identifying tag, stamp, or other device should be affixed to the valve.

(iii) For remotely operated and underground valves, a readily observable and durable code identifying tag, stamp or other device should be affixed to the inside wall of the valve box or valve extension unit. It should be affixed so that it will not interfere with the valve operation, and will not be defaced or dislocated by normal operations.

(g) For planned shutdowns, see Guide Material Appendix G-192-12.

(h ~~g~~) Regulator station drawings should show control line and pressure sensor location as needed. These drawings must be available to personnel working at the station (§192.605(b)(3)) and should be reviewed for accuracy prior to any work. Any changes resulting from work performed at a regulator station should be identified and noted on drawings.

2.3 Data gathering for incidents.

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Section 192.747

1 INSPECTION AND MAINTENANCE

Valves should be checked for adequate lubrication and proper alignment to permit the use of a key, wrench, handle, or other operating device. Where applicable, the valve box or vault should be cleared of any debris that would interfere with or delay the operation of the valve.

2 PRECAUTIONS

If a valve is to be fully or partially operated, precautions should be taken to avoid a service outage or overpressuring the system. Such precautions might include the following.

(a) Documenting the valve type (e.g., plug, gate, ball) and the direction and number of turns to operate the valve.

(b) Verifying the orientation of the valve in relation to the valve stops.

(c) Monitoring downstream pressure for any variation from normal operating pressure.

(d) Qualified personnel (see Subpart N) and system operating SME, if necessary, should be involved in the inspection or adjustment of any valve that could affect pressure regulating equipment or other pressure sensing equipment.

~~(e) When the operator is performing work that involves customer piping, work that can affect the integrity of Part 192 regulated piping, or both (e.g., meter move-out), the operator should review its isolation plan prior to work commencing and consider locking out the valve on the affected piping.~~

(e) See guide material under §192.739 for equipment associated with pressure regulation and overpressure protection.

3 INOPERABLE VALVES

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4 IDENTIFICATION AND RECORD VERIFICATION

(a) See §192.181 for additional information on identifying valves necessary for the safe operation of a distribution system.

(b) See guide material under §192.745 regarding verification of records with current field data.

(c) See 2.2(f) of the guide material under §192.605 regarding field identification of valves.

Section 192.801

2 CONTRACTORS

(a) In implementing its OQ program, an operator should consider that any contractor individual who performs covered tasks on the operator's behalf needs to be qualified unless the individual will be directed and observed by an individual that is qualified.

(b) An operator should consider including provisions in its own written program to address the use of contractor or mutual aid employees performing covered tasks.

(c) It may be necessary for an operator to work with the contractor or mutual aid employee to ensure that qualifications are established and maintained consistent with the operator's program.

(d) Field work may involve contractors for both customer piping and Part 192 regulated piping. To determine which work is subject to the OQ program, the delineation between customer piping and Part 192 regulated piping should be understood prior to work commencing.