

# 1-D Class Location

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## [1.0 SCOPE](#)

## [2.0 REGULATORY REFERENCES](#)

## [3.0 CLASS LOCATION](#)

## [4.0 TRAINING/QUALIFICATIONS](#)

## [5.0 DOCUMENTATION/FORMS \[192.5\]](#)

## [6.0 RELATED DOCUMENTS](#)

## [7.0 APPENDICES](#)

### **1.0 SCOPE**

This chapter describes the requirements for class location of DENC and DESC facilities. Class location applies to all transmission facilities.

This chapter covers:

- Class locations
- Change of class location
- Confirmation or revision of *maximum allowable operating pressure*

### **2.0 REGULATORY REFERENCES**

49 CFR Part 192 §§ [192.5](#), [192.609](#), [192.610](#), [192.611](#)

### **3.0 CLASS LOCATION**

#### [3.1 Class Location Unit \[192.5\]](#)

#### [3.2 Change in Class Location \[192.609\] \[192.610\]](#)

#### [3.3 Confirmation or Revision of MAOP \[192.611\]](#)

#### **3.1 Class Location Unit [[192.5](#)]**

*Class location unit* means an area that extends 220 yards on either side of the centerline of any continuous 1-mile length of an onshore *pipeline*. Except as

a multiple dwelling building is counted as a separate building intended for human occupancy.

The boundaries of the class locations determined in accordance with the class location definitions *may* be adjusted as follows:

- (a) A *Class 4 location* ends 220 yards from the nearest building with four or more stories above ground.
- (b) When a cluster of buildings intended for human occupancy requires a *Class 3 location*, the Class 3 location ends 220 yards from the nearest building in the cluster.
- (c) When a cluster of buildings intended for human occupancy requires a *Class 2 location*, the Class 2 location ends 220 yards from the nearest building in the cluster.

*Class 1 location* means any class location unit that has 10 or less buildings intended for human occupancy and offshore.

*Class 2 location* means any class location unit that has more than 10 but less than 46 buildings intended for human occupancy.

*Class 3 location* means: (a) Any class location unit that has 46 or more buildings intended for human occupancy; or (b) An area where the pipeline lies within 100 yards of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or the place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days and weeks need not be consecutive.)

*Class 4 location* means any class location unit where buildings with four or more stories above ground are prevalent. A single four story building in a class location unit does not make the unit a class 4 location.

### **3.2 Change in Class Location [192.609] [192.610]**

#### **3.2.1 Continuing Surveillance**

DENC and DESC's continuing surveillance of its pipeline system may indicate a need to review class location of pipelines due to the construction of buildings intended for human occupancy, playgrounds, recreation areas, outdoor theaters or other places of public assembly.

Whenever an increase in population density indicates a change in class location for a segment of an existing steel pipeline operating at a hoop stress that is more than 40 percent of *SMYS*, or indicates that the hoop stress corresponding to the established maximum allowable operating pressure for a segment of existing pipeline is not commensurate with the present class location, a study will be made as described below.

A comprehensive review of pipeline segments meeting the above criteria will be conducted at least annually by the Integrity Management and Compliance department. A field survey may be required to confirm the need and extent of any change. If this review indicates that a change in class location for a pipeline segment has occurred, the Director or delegated representative *shall* conduct a study to:

- (1) Determine the present class location for the pipeline segment.
- (2) Compare the original design, construction and testing procedures of the pipeline segment those required for the present class location.
- (3) Determine the physical condition of the pipeline from all available records.
- (4) Review the operating and maintenance history of the pipeline segment.
- (5) Determine the operating hoop stress from the *maximum actual operating pressure*.

(6) Verify the extent of the area affected and identify any limiting factors further expansion of the area.

### 3.2.2 Change in Class Location: RMV-Change in valve spacing

If a class location change on a transmission pipeline occurs after October 5, 2022, and results in pipe replacement, of 2 or more miles, in the aggregate, within any 5 contiguous miles within a 24-month period, to meet the maximum allowable operating pressure (MAOP) requirements in § [192.611](#), § [192.619](#), or § [192.620](#), then the requirements in §§ [192.179](#), [192.634](#), and [192.636](#), as applicable, apply to the new class location, and the operator must install valves, including rupture- mitigation valves (RMV) or alternative equivalent technologies, as necessary, to comply with all applicable valve spacing requirements to § [192.611](#).

### 3.2.3 Other Considerations for Class Location

When a Class Location changes, DESC/DENC should consider the following impacts on transmission pipelines:

Topic	DOT Code	SOP	Changes
Construction / Repairs	<a href="#">192.243</a> <a href="#">192.503</a> <a href="#">192.619</a>	Applicable O&M Chapters	<ul style="list-style-type: none"><li>• Change to rate of NDT required for welds</li><li>• Places limitations on use of air/inert and natural gas for pressure testing</li><li>• Design factor changes for any replacement pipe</li></ul>
MAOP	<a href="#">192.610</a> <a href="#">192.611</a>	<a href="#">SOP GD-OM-L-060-002</a> SOP	<ul style="list-style-type: none"><li>• Pipe replacement &gt; 1000' as a result Class change – triggers RMV rule</li><li>• MAOP &gt; 40% SMYS, MAOP must be confirmed or revised within 24 months of change</li><li>• Two changes in class location triggers; pipe replacement or downrate, provided</li></ul>

			pressure test is minimum 8 hours and commensurate with new MAOP for new Class location.
Maintenance	<a href="#">192.705</a> <a href="#">192.706</a> <a href="#">192.707</a>	<a href="#">Chapter 12-A</a> <a href="#">Chapter 12-C</a> <a href="#">Chapter 12-D</a>	<ul style="list-style-type: none"> <li>Increases patrol frequency with 2x interval @ Railroad &amp; highway crossings</li> <li>May permit removal of line markers</li> <li>Affect leak survey frequencies and use of leak detection equipment</li> </ul>
Odorization	<a href="#">192.625</a>	<a href="#">Chapter 11-F</a>	<ul style="list-style-type: none"> <li>Mainline – reduction below 50% Class 1 or 2 downstream trigger odorizing requirement</li> <li>Lateral – loss of 50% or more Class 1 or 2 trigger odorizing requirement</li> </ul>
Public Awareness	<a href="#">192.616</a>	<a href="#">Chapter 11-C</a>	<ul style="list-style-type: none"> <li>Change to public education materials distribution</li> </ul>
Assessments outside of HCAs	<a href="#">192.710</a>	<a href="#">Chapter 12-C</a>	<ul style="list-style-type: none"> <li>Change to Class 3 or 4 non-HCA may trigger</li> </ul>

			assessments (>30%)
Transmission Integrity P&M Measures	<a href="#">192.935</a>	TIMP Section 9	<ul style="list-style-type: none"> <li>Change to Class 3 or 4 non-HCA triggers (&lt;30% SMYS) triggers 192.935(d)</li> </ul>

### 3.3 Confirmation or Revision of MAOP [[192.611](#)]

#### Reconfirmation of MAOP

If a Class location change along a pipeline results in the pipeline's or segment's *MAOP* subsequently exceeding that which would be allowed by the new class location, then the MAOP for that pipeline/segment shall be changed to reflect the new class location.

The MAOP may also alternatively be determined by the provisions of [192.611\(a\)\(1\)](#), [192.611\(a\)\(2\)](#) or [192.611\(a\)\(3\)](#).

The maximum allowable operating pressure confirmed or revised in accordance with this section, may not exceed the maximum allowable operating pressure established before the confirmation or revision.

Confirmation or revision of the maximum allowable operating pressure that is required as a result of a study under [section 3.2](#) and §[192.609](#) *must* be completed within 24 months of the change in class location.

### 4.0 TRAINING/QUALIFICATIONS

None at this time.

### 5.0 DOCUMENTATION/FORMS [[192.5](#)]

All documentation and studies regarding class location and revision/confirmation of MAOP will be maintained in the appropriate records system.

Records shall document the current class location of each transmission pipeline segment and demonstrate how each current class location was determined in accordance with [192.5](#).

### 6.0 RELATED DOCUMENTS

None at this time.

### 7.0 APPENDICES

None at this time.

(UNCONTROLLED IF PRINTED)

