Definition of Transmission Lines

South Dakota Public Utility Commission Review
“Transmission Line” means a pipeline, other than a gathering line, that:

1. Transports gas from a gathering line or storage facility to a gas distribution center, storage facility, or large volume customer that is not down-stream from a gas distribution center;
2. Operates at a hoop stress of 20 percent or more SMYS; or
3. Transport gas within a storage field.
Gathering Line To Transmission

Gathering Line

Transmission Line

Storage Field

Transmission Line

Distribution Center

Transmission Line

Large Customer

Gathering Line

Transmission Line
Storage To Transmission

Storage Field

Transmission Line

Transmission Line

Transmission Line

Distribution Center

Large Customer

Storage Field

Storage Field
For South Dakota, the only defining attribute of a transmission line for the current interpretation is that it operates at a hoop stress of 20% or more of SMYS.

The 192 Definition states that a Transportation Line

- "Transports gas from a gathering line or storage facility to a ….”
  - The current interpretation holds that there are no gathering lines or storage facilities in South Dakota.
- "Operates at a hoop stress of 20% or more of SMYS; OR"
- Transport gas within a storage field
  - The current interpretation holds that there are no storage fields in South Dakota.
Past Approved Practices

**Freeman/AMPI Pipeline**

» Was reclassified from a transmission line to a distribution line following the purchase of the line from NNG in 2007.

» The Pipeline Safety Program Manager was notified and responded approving the reclassification.

**Crooks**

» In PS09-005, the Crooks pipeline classification was challenged.

» The primary point for defining a “distribution center” was “a point where gas enters piping used primarily to deliver gas to customers who purchase it for consumption as opposed to customers who purchase it for resale.”

» Being under 20% SMYS and odorized, the line was classified as distribution through a settlement even though it did have some resale to Garretson.
Other States

- **Missouri**
  - **Transmission Line Definition** (Distributed May 2, 1995)
    - "...After several discussions with the MGUTC Executive Board, the Staff decided to base determination of a transmission line on the MAOP being equal to or above 20% SMYS. If the transmission line transitions to smaller pipe or if there are laterals off the line that are of smaller diameter, the Staff will not consider those lines as transmission lines, as long as the MAOP is not equal to or above 20% SMYS."

- **Washington**
  - "Transmission facility" means any of the following together with their associated facilities:
    - (a) Crude or refined petroleum or liquid petroleum product transmission pipeline of the following dimensions: A pipeline larger than six inches minimum inside diameter between valves for the transmission of these products with a total length of at least fifteen miles;
    - (b) Natural gas, synthetic fuel gas, or liquefied petroleum gas transmission pipeline of the following dimensions: A pipeline larger than fourteen inches minimum inside diameter between valves, for the transmission of these products, with a total length of at least fifteen miles for the purpose of delivering gas to a distribution facility, except an interstate natural gas pipeline regulated by the United States federal power commission.

- **Ohio**
  - Ohio has a history of similarly defining a transmission line as presented to the PUCO on March 27, 2009. [http://www.ohiogasassoc.org/docs/transmission_lines.pdf](http://www.ohiogasassoc.org/docs/transmission_lines.pdf)
Can SD choose the interpretation of the definition? Can it be more stringent?

FAQ #206 - Question: New York CRR 255 mandates any pipeline operating above 125 PSIG be classified as a "transmission line". Will operators be required to develop an IMP for NY transmission lines even though under 192 these lines would not be defined as transmission pipelines?

Answer: States may apply standards more restrictive than federal rules. Operators should consult with state pipeline safety authorities regarding the application of state laws.

SDCL 49-34B-3 and 49-34B-4 do not allow stricter requirements.

Does defining terms left undefined in 192 make the requirements more or less strict?
Transmission Lines are not defined as storage facilities in 192. Storage facilities are not defined at all.

If the PUC accepts the proposed interpretation that a transmission line is also a storage facility, a topic that is currently being heavily debated, the undefined terms of city distribution center and large volume customer need to be addressed.

Transmission line definition states as a second part “...to a gas distribution center, storage facility, or large volume customer that is not down-stream from a gas distribution center.”
Transmission To Transmission

Transmission Line
(Storage Facility?)

Transmission Line

Transmission Line

Transmission Line

Transmission Line

Distribution Center

Storage Field

Large Customer
Not defined in Part 192 as it is referenced in TIMP FAQ 190:

» Question: How do LDC operators and/or regulators define "distribution center"? (necessary to determine amount of transmission line)

» Answer: "Distribution center" is not defined in federal pipeline safety regulations. State definitions can vary. OPS recognizes the actions of each state in defining what constitutes a distribution center.

Proposed Distribution Center Definition:

» Distribution Center is a point of custody transfer between the transmission pipeline and the distribution company, or

» Must contain pressure controlling devices that regulate below transmission delivery pressure;

and

» The pipeline downstream:
  ♦ Must be under 20% SMYS, and
  ♦ Point where gas enters piping used primarily to deliver gas to customers who purchases it primarily for consumption as opposed to those who purchase it for resale.
“Large Volume Customer” used in the definition of a transmission line is not defined by 192.

» What is a Large Volume Customer?

» How does who is connected at the end of the line affect the safety of the line?

» The term is “Large Volume Customer” not “Customers.” Service to more than one customer by a pipeline operating under 20% SMYS would be a distribution line.

What could a possible definition be?
Transmission/Distribution Trade Offs

- **Safety Inspections/Financial impacts**
  - **Odorizing**
    - Not required for most transmission lines
    - May elect not to odorize to offset other maintenance costs
  - **Leak Surveying**
    - Distribution systems require periodic leak surveys with surveying equipment.
    - Transmission lines do not require leak survey equipment for lines in class locations 1 & 2.
  - **TIMP**
    - Most of the proposed transmission miles will not be in TIMP because there will be very few HCAs.
  - **Design**
    - Utilities will elect high SMYS levels with thinner pipe thickness to offset other construction costs.
  - **Proposed growth project feasibility hurdles will increase due to the increase construction and maintenance costs.**
Examples - Key to Diagrams

- **Red Lines** = Transmission
- **Green lines** = Distribution
- **X** = Point of Transfer – designated by each operator
- **M** = is a meter
- **R** = overpressure protection devices
- **C** = Customer
- **F** = Farm tap

(Assumes same owner after transfer point)
South Dakota Interpretation

- Agree for either interpretation
- Distribution Line A-B
- Distribution Line B-C
South Dakota Interpretation

- Agree for either interpretation
- Distribution Line A-B
- Distribution Line B-C
- Distribution Line C-D

Transmission Line

A \[< 20\% \text{ SMYS}\] B

< 20\% \text{ SMYS}

C \[< 20\% \text{ SMYS}\] D

NorthWestern Energy
Delivering a Bright Future
South Dakota Interpretation – Aberdeen*

- **Current Interpretation**
  - Distribution Line A-B
  - Distribution Line B-C
  - Distribution Line C-D

- **Staff New Interpretation**
  - Transmission Line A-B
  - Transmission Line B-C
  - Distribution Line C-D

Staff & Utilities Not in Agreement
South Dakota Interpretation

- **Current Interpretation**
  - Distribution Line A-B
  - Distribution Line B-C

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  - Transmission Line A-B
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- **Current Interpretation**
  - Distribution Line A-B

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  - Transmission Line A-B

Staff & Utilities Not in Agreement
Current South Dakota Interpretation

- Agree for either interpretation
- Transmission Line A-B
- Distribution Line B-C
- Distribution Line C-D

![Diagram of Transmission Lines A-B, B-C, C-D]

A > 20% SMYS
B < 20% SMYS

C < 20% SMYS
D
Current South Dakota Interpretation

- Agree for either interpretation
- Transmission Line A-B
- Distribution Line B-C
- Distribution Line C-D
Current South Dakota Interpretation

- Agree for either interpretation
- Transmission Line A-B
- Transmission Line B-C
- Distribution Line C-D

Transmission Line

M X R

A > 20% SMYS
B

> 20% SMYS

C

< 20% SMYS

D

C

C

C

C

NorthWestern Energy
Delivering a Bright Future
Current South Dakota Interpretation

- Agree for either interpretation
- Transmission Line A-B
- Transmission Line B-C
- Distribution Line C-D
**Current South Dakota Interpretation**

- **Agree for either interpretation**
- **Transmission Line A-B**
- **Transmission Line B-C**
- **Distribution Line C-D**
Summary

1. Request that the Commission find that the Aberdeen line was properly classified as a distribution line.

2. Request that the Commission affirm past practice of determining the classification of a transmission line versus a distribution line will be the continued practice for future lines.

3. Request that if Commission finds the South Dakota past practice is to be changed, the Commission opens a rule-making docket to further define additional key items to clarify the new definition.