TPMS Attribute Definitions and Valid Codes

The Texas Pipeline Mapping System (TPMS) is a GIS database that requires pipeline attributes to be represented by certain codes. This document defines the attribute fields within the database and explains what codes are valid representations of those attributes.

Valid Code – letters, numbers and special characters that are acceptable representations of pipeline attributes

For Example: NG = Natural Gas

The following **data types** are used to **define "valid code"** for pipeline attribute fields:

> **I = Integer Only (ex. 1, 2, 3, etc.)**
> **R = Real Number with 2 decimal places Only (ex. 6.63, 12.00)**
> **C = Characters (letters, numbers and/or special characters)**

*Note: All numbers must be **positive.** All letters must be **CAPITALIZED**.

The following (1, C) designates the valid code for a specific pipeline attribute field.

For Example: In TPMS, the attribute field, **Interstate**, is a **Yes** or **No** answer.

(1, C) means the value of the attribute, **Cannot exceed "1" character space in length.**

Therefore, the **only valid code** for a Yes or No answer, to be represented as a single character, is either **'Y' or 'N'.**

Definitions of Attribute Fields

OPER_LINK (8, I) *Only required with Separate Attribute File
> Unique Link ID - Any positive integer 1 through 99,999,999 used to link attributes with geospatial data. This is required only if you submit attributes in a file that is separate from the geospatial file

OPS_ID (5, I)
> Operator Number (NPMS FIELD) - Accounting number assigned by the U.S. Department of Transportation, Office of Pipeline Safety, to the company that physically operates the pipeline system.

Go to NPMS site: www.npms.rspa.dot.gov; then Click on: OPS Operator ID Search

OPER_NM (40, C)
> Operator Name - The company name that physically operates the pipeline system.
> **NOT THE PIPELINE OWNER.**

SYS_NM (40, C)
> <u>System Name</u> - A name of a single pipeline system assigned by the operator. The name can be any alpha/numeric value assigned by the operator.

SUBSYS_NM (40, C)
> <u>Sub System Name</u> - Assigned by the operator. A unique name for a smaller sub-section of a pipeline system. A subset of SYS_NM.

PLINE_ID (20, C)
> <u>Pipeline ID</u> - This is an identifier for a specific section of the pipeline within a pipeline system. This identifier can be any alpha/numeric value assigned by the operator.

DIAMETER (5, R)
> <u>Diameter</u> – Only use Outside Pipeline Diameters in inches.
> **Format of diameter values, ##.## (two decimal places only)**
> **Valid Code:** 1.32, 2.38, 2.88.3.50, 4.00, 4.50, 5.56, 6.63, 8.63, 10.75, 12.75…
> (For diameters of <u>greater than 12 inches</u>, outside diameter equals nominal diameter.)

COMMODITY1 (3, C)
> <u>Commodity</u> - Abbreviation for primary commodity carried by the pipeline system

Valid Code	Code Description
HG	Hydrogen Gas
CRD	Crude Oil
LPG	Liquid Petroleum
NG	Natural Gas
PRD	Product
AA	Anhydrous Ammonia
CO2	Carbon Dioxide
NGL	Natural Gas Liquids
HVL	Highly Volatile Liquid
EMT	Empty

COMMODITY2 (3, C) - Abbreviation for a secondary commodity carried by the pipeline system; **Same "Valid Code" as <u>COMMODITY1</u>.**

COMMODITY3 (3, C) - Abbreviation for a tertiary commodity carried by the pipeline system; **Same "Valid Code" as <u>COMMODITY1</u>.**

CMDTY_DESC (40, C)
> <u>Commodity Description</u> - Descriptive information about the commodities carried by the pipeline system.
> *See Appendix B for examples.*

INTERSTATE (1, C)

Interstate Designation - Identifies if a pipeline segment is Interstate or Intrastate.

Valid Code	Code Description
Y	Interstate Pipeline
N	Intrastate Pipeline

STATUS_CD (1, C)

Pipeline Status Code - Identifies current status of pipeline segment.
If a pipeline is idle, it is still considered "<u>In-Service</u>".
If a pipeline is junked in place, it is "<u>Abandoned</u>".

Valid Code	Code Description
I	In-Service
B	Abandoned

QUALITY_CD (1, C)

Data Quality Code - Operator's estimate of the positional accuracy of the submitted pipeline segment.

Valid Code	Code Description
E	Excellent: within 50 feet
V	Very Good: 51 – 300 feet
G	Good: 301 – 500 feet
P	Poor: 501 – 1000 feet
U	Unknown

META_NAME (13, C)

Metadata File Name - Name of the metadata file associated with this data. (**www.npms.rspa.dot.gov**)

Attributes above this line were established for NPMS.
....
Attributes below this line were established for TPMS in addition to NPMS attributes.

T4PERMIT (5, C)

T-4 Permit Number - RRC assigned 5-digit, left zero-filled, pipeline permit number. **Examples: 09999 <u>or</u> 00001**

SYSTYPE (1, C)

> System Type - Abbreviation for the system type description.

Valid Code	Code Description
G	Gas Gathering
K	Carbon Dioxide
L	Crude Gathering
O	Crude Transmission
P	Non-HVL Liquid Products
Q	HVL Products
T	Gas Transmission

See Appendix B for examples of the relationship between System Type and Commodity.

MODDATE (10, C)

> Modified Date - Date pipeline data was submitted to the RRC.
> **(YYYY-MM-DD)** is the correct format; Field should contain the dashes.

Example: | 2002-12-31 |

P5_NUM (6, C)

> P5 Operator Number – A six-digit number generated and used by the RRC to identify a pipeline operator, **not** the owner of the pipeline.

COM_CARR (1,C)

> Common Carrier Status - Declaration of common carrier, gas utility status.

Valid Code	Code Description
Y	Common Carrier or Gas Utility
N	Private

TX_REG (1, C)

> Texas Regulated Pipeline - Regulated and Non-Regulated pipeline segments.

Valid Code	Code Description
Y	Facilities subject to 49CFR 192, 49CFR 195, 16TAC 7.70 or 16TAC 7.80 – 7.87. Identify regulated pipelines by pipeline segment or arc.
N	Identify non-regulated pipelines by pipeline segment or arc.

SYS_ID (6,I)

> System ID Number - Identification Number assigned to a regulated pipeline or pipelines (Jurisdictional Pipelines). This number is assigned by the RRC and should be kept as a reference number by the pipeline operator for field inspection purposes.
>
> **Example of a System Identification Number: 750734**
> The 1st number represents the assigned "Pipeline Safety Region" for that system.
> The 2nd number represents the fluid being transported: 3 = Natural Gas, and
> 5 = Hazardous Liquids. The last four numbers are sequential numbers.

4

T4_AMD (2, C)

> T-4 Amendment Code – Created to link pipeline geography to T-4 amendments
> and any changes with the current T-4 Permit filing.

Listed below are the Standard Codes for Submitting T4 Amendments in Digital Form.

Note: Operators must have the Commission's approval before submitting Digital T-4
Amendments. Please contact us at 512-463-7167.

> For Digital submissions, use **T4_AMD** as the Database Field Name
> T4_AMD Field should be designated to accept only 2 Characters **(2,C)**

*Note: Use these Codes or Descriptions *in the* <u>*database file*</u> *(.DBF) and the* <u>***T-4 Permit Cover Letter***</u>*, when describing T-4 amendments or changes. See sample cover letter(s).*

Valid Code	Code Description
OC	Operator Change, acquired the entire permit from another permit or operator. (Keeps the same Permit# as previous operator.) **Buying party only.** *Note: For verification purposes the new operator is required to submit maps of the system(s) they have acquired.*
SP	Sold Permit, sold the entire permit, abandon lines and all, to another operator. (Permit number goes to new operator.) **SELLING party only.** *Note: Must submit a T-4B (Pipeline Transfer Agreement between Operators) and for verification purposes the operator is required to submit maps of the system(s) they have sold.*
AM	Acquired and Merge, acquired the entire permit from another operator and merging into existing Permit. (Old permit cancelled)
MP	Merge Permit, merge entire permit with another permit within the same operator.
PM	Partial Merge, partial transfer (merge) from one permit to another within the same operator.
PT	Partial Transfer, partial transfers from one permit to another, different operators.
PA	Pipeline Addition, addition to existing permit (New construction report required)
NP	New Permit & New Pipeline (New construction report required)
DP	Delete Pipelines; delete pipelines (removed from the ground).
BP	Abandon in Place, but remains under the same permit and operator and there are still active lines under the permit.
BS	Abandon and Sold, sold abandon pipelines only to another operator. (New permit)
CP	Cancel Permit. For example: Abandon **ALL** the pipelines under the permit, changed **ALL** pipelines to distribution or other pipeline use where a permit is not required.
FC	Fluid Change. For example: Natural Gas to Gasoline.
NC	No Change, for all arcs with no changes.
OM	Other Modifications: Changes that are not T4 Amendments. For example: diameter change, system name change, pipeline location, etc.

Notes for the "T4_amd" field continue on the next page…

Notes for the T-4_AMD Field:

1. **Every arc** must have this field entered when submitting the geography in digital format for T-4 amendments or if submitting hard copy maps; the attribute file must have the T-4_amd code for every record in this field. The RRC queries and color-codes this field for viewing the changes. (This replaces paper maps for Digital Submissions) For Hard Copy Submissions you must highlight the pipelines you are amending on the map and fill in the T-4_amd code in the attribute table.

2. **Always send** the **Entire System** for each permit when submitting T-4 amendments. Do **not** send multiple permits in one file. You may send multiple files, however **each file** should contain **only one permit**.

3. You **must** also send a **24 x 24 Overview Hardcopy Map** with your T-4 amendment form and cover letter. Scale should be fit to page, however the scale will vary. **Minimum Scale: 1" = 20 miles**

4. You **may** also be required to send a **detail hardcopy map** for **environmental review**. (This requirement may change in the near future.)

5. **If** you sell a portion of your permit and make changes to the remaining system later, the portion you **reported** to the Railroad Commission **as sold** in your **previous submission**, should **not** be included **in your new submission**.

Appendix B

COMMODITY DESCRIPTIONS AND SYSTYPES

This is <u>Not</u> an exhaustive list. Please refer to the <u>Emergency Response Guidebook,</u> published by the *U.S. Department of Transportation* for any commodities not listed.

Commodity Description	Commodity	System Type	Additional Description
ACETYLENE	PRD	T	(GAS TRANSMISSION)
ACETYLENE OFF GAS	PRD	T	(GAS TRANSMISSION)
AMMONIA	AA	P	(NON_HVL LIQUID PRODUCT)
BENZENE	PRD	P	(NON_HVL LIQUID PRODUCT)
BUTANE	HVL	Q	(HVL PRODUCT)
CARBON DIOXIDE	CO2	K	(CARBON DIOXIDE)
CONDENSATE	CRD	L	(CRUDE GATHERING)
CONDENSATE	CRD	O	(CRUDE TRANSMISSION)
CRUDE OIL	CRD	L	(CRUDE GATHERING)
CRUDE OIL	CRD	O	(CRUDE TRANSMISSION)
E/P MIX	HVL	Q	(HVL PRODUCT)
ETHANE	HVL	Q	(HVL PRODUCT)
ETHLYENE	HVL	Q	(HVL PRODUCT)
ETHYLENE GAS	PRD	T	(GAS TRANSMISSION)
GASOLINE	PRD	P	(NON_HVL LIQUID PRODUCT)
HYDROGEN GAS	HG	T	(GAS TRANSMISSION)
LIQUEFIED PETROLEUM GAS	LPG	Q	(HVL PRODUCT)
NATURAL GAS	NG	G	(GAS GATHERING)
NATURAL GAS	NG	T	(GAS TRANSMISSION)
NATURAL GAS LIQUID	NGL	Q	(HVL PRODUCT)
OXYGEN	PRD	T	(GAS TRANSMISSION)
PROPANE	HVL	Q	(HVL PRODUCT)

*If you have questions regarding this list, please contact the RRC, Pipeline Mapping.