

PHMSA Reportable Incident⁽¹⁾ Data

12 Month Rolling Rate through March 2024

	Rolling 12 Month ⁽⁴⁾	2022	2021	2020	3 Yr. Avg.
	Number per 1,000 Miles				
KM Transmission and Regulated Gathering⁽¹⁾ Rate⁽²⁾	0.46	0.23	0.39	0.31	0.31
Industry Transmission and Regulated Gathering Rate (US)⁽³⁾	NA	0.45	0.30	0.40	0.39
KM Type- R Gathering⁽¹⁾ Rate	0.28	N/A	N/A	N/A	N/A
Industry Type-R Gathering Rate (US)⁽⁵⁾	N/A	0.04	N/A	N/A	N/A
	Number per 1,000,000 BBLs Storage				
KM LNG Marine Terminals Rate⁽²⁾	0.00	0.00	0.00	0.18	0.06
Industry LNG Marine Terminals Rate (US)⁽³⁾	NA	0.07	0.03	0.10	0.07

(1) As defined on Slide 4 – “Definitions”

(2) 2020, 2021 & 2022 Kinder Morgan rates calculated using the respective year’s annual report data.

(3) Industry rates exclude Kinder Morgan data.

(4) Rolling 12 Month Kinder Morgan incident rate calculated using Kinder Morgan 2022 annual report data.

(5) There is currently only 2022 industry Type-R gathering incident available to include in this report.

Gas Transmission and Regulated Gathering Pipeline Onshore PHMSA Significant Incidents⁽¹⁾

	Rolling 12 Month ⁽⁴⁾	2022	2021	2020	3 Yr. Avg.
Number per 1,000 Miles					
KM Transmission and Regulated Gathering Rate⁽²⁾	0.29	0.15	0.17	0.25	0.19
Industry Transmission and Regulated Gathering Rate (US)⁽³⁾	NA	0.27	0.20	0.22	0.23

(1) As defined on Slide 4 – “Definitions”

(2) 2020, 2021 & 2022 Kinder Morgan rates calculated using the respective year’s annual report data.

(3) Industry rates exclude Kinder Morgan data.

(4) Rolling 12 Month Kinder Morgan significant incident rate calculated using Kinder Morgan 2022 annual report mileage.

LNG Marine Terminals PHMSA Significant Incidents⁽¹⁾



	Rolling 12 Month ⁽⁴⁾	2022	2021	2020	3 Yr. Avg.
Number per 1,000,000 BBLs Storage					
KM LNG Marine Terminals Rate⁽²⁾	0.00	0.00	0.00	0.18	0.06
Industry LNG Marine Terminals Rate (US)⁽³⁾	NA	0.03	0.03	0.03	0.03

(1) As defined on Slide 4 – “Definitions”

(2) 2020, 2021 & 2022 Kinder Morgan rates calculated using the respective year’s annual report data.

(3) Industry rates exclude Kinder Morgan data.

(4) Rolling 12 Month Kinder Morgan significant incident rate calculated using Kinder Morgan 2022 annual report mileage.

Definitions

The following definitions are used throughout this report:

Incident: Any of the following events:

- a. An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences;
 - i. A death, or personal injury necessitating in-patient hospitalization;
 - ii. Estimated property damage of \$129,300 (before July 1, 2023) or \$139,700 (July 1, 2023 or after) or more including loss to the operator and others, or both, but excluding cost of gas lost
 - iii. Unintentional estimated gas loss of three million cubic feet or more;
- b. An event that results in an emergency shutdown of an LNG facility.
- c. An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

Rupture: A break, burst, or failure that exposes a visible pipeline fracture surface.

PHMSA Significant Incident: An incident meeting the following definitions-

- a. Fatality or Injury requiring inpatient hospitalization; or
- b. \$50K or more in total PHMSA adjusted costs measured in 1984 dollars where:
 - i. $1984\$ = \frac{D+I}{\text{Inflation}} + \frac{UG}{1984 \text{ City Gate}}$, where
 - i. Inflation = Current Year Dollars/1984 Inflation Value, determined using the U.S. Government’s GDP Price Index.
 - ii. 1984 City Gate = Current Year compared to 1984 City Gate Gas Price, defined by PHMSA.
 - iii. “D” = This includes (but is not limited to) estimated costs due to property damage to the operator’s facilities and to the property of others, facility repair and replacement, and environmental cleanup and damage, it does not include the cost of unintentional or intentional gas lost.
 - iv. “IG” = Estimated cost of gas released from intentional and controlled blowdown.
 - v. “UG” = Estimated cost of gas released unintentionally.

Regulated Gathering: Type A, B, or C gathering pipelines as defined on the Gathering Pipeline Types Chart on the right of this slide

Type-R Gathering: Type R gathering pipelines as defined on the Gathering Pipeline Types Chart on the right of this slide

Gathering Pipeline Types		
Gathering Type	Feature	Area
A	<ul style="list-style-type: none"> • <u>Metallic</u> and the MAOP produces a hoop stress of 20 percent or more of SMYS*. 	Class 2, 3, or 4
	<ul style="list-style-type: none"> • <u>Nonmetallic</u> and the MAOP is more than 125 psig 	
B	<ul style="list-style-type: none"> • <u>Metallic</u> and the MAOP produces a hoop stress of less than 20 percent of SMYS*. 	Area 1. Class 3 or 4 location Area 2. An area within a Class 2 location the operator determines by using any of the following three methods: <ul style="list-style-type: none"> • Class 2 location • An area extending 150-feet on each side of the centerline of any continuous 1 mile of pipeline and including more than 10 but fewer than 46 dwellings. • An area extending 150-feet on each side of the centerline of any continuous 1000-feet of pipeline and including 5 or more dwellings.
	<ul style="list-style-type: none"> • <u>Non-metallic</u> and the MAOP is 125 psig or less 	
C	<ul style="list-style-type: none"> • Outside diameter greater than or equal to 8.625-inches 	Class 1
	<ul style="list-style-type: none"> ○ <u>Metallic</u> and the MAOP produces a hoop stress of 20 percent or more of SMYS*. 	
	<ul style="list-style-type: none"> ○ <u>If the stress level is unknown, segment is metallic, and the MAOP is greater than 125 psig</u> 	
	<ul style="list-style-type: none"> ○ <u>Non-Metallic</u> and the MAOP is greater than 125 psig 	
R	<ul style="list-style-type: none"> • All other onshore gathering lines not categorized as Type A, B or C 	Class 1 or 2