

## Risk Ranking Index Model (RRIM) Summary

For each federally-inspected Gas Transmission (GT), Gas Gathering (GG), and Hazardous Liquid/Carbon Dioxide (HL) Unit, calculate a risk score:

### Threats

Pipe Miles – from **NPMS** and weighted 0 to 3. If missing from NPMS, **Unit Component Data** is used. Proxy miles are used for breakout tanks, compressor stations, and pump stations. Weight is based on sum of pipe miles and facility proxy miles.

Pre-1970 LF ERW Miles - from **Unit Component Data** and weighted 0 to 3

Enforcement – CPF within last 7 years from inspection **Activities**. If the CPF was issued within the last 3 years, the weight is divided in half.

CAO or SO	weight 3
NOPV, CO or CP	weight 2
WL or NOA	weight 1

Construction or Acquisition – **National Registry Notification** and weighted 0 to 0.3

Commodity – from **Unit Data** and weighted 1 to 6

Bare Pipe - from **Unit Component Data** and weighted 0 to 0.2

Ineffective Coating – from **Unit Component Data** and weighted 0 or 0.2

Incidents – **Significant Incidents** within last 5 years and weighted 0 to 3 – higher weight for more recent and multiple incidents

Land Movement – proximity in **NPMS** to all-reported GG, GT, and HL incidents from 2002 forward with cause of Earth Movement or Heavy Rains/Floods with Mudslide selected and weighted 0 to 3

### Consequence

Combine commodity, diameter, and miles (HCA, non-HCA, and proxy) into a single weight

### Risk Score

Sum Threat weights and multiply by Consequence weight to calculate Unit Risk Score. Inspection System (IS) Risk Score is the sum of the risk scores of Units within the IS divided by a normalization factor of 4.

### IS Time Since Last Inspection (TSLI)

Assigned based on the start date of the most recent Integrated Inspection. If no Integrated Inspection, use the start date of the most recent Unit-level inspection among all Units within the IS. If still no IS TSLI, look for a construction inspection ending in the current year and assign TSLI of 1. Otherwise, IS TSLI is 8.

### Risk Tiers and Max TSLI

IS are assigned a Risk Tier based on IS Risk Score. The highest 25% of IS Risk Scores are high-risk, the lowest 25% of IS Risk Scores are low-risk and the remaining 50% are medium-risk. Low-risk IS have Max TSLI of 7 years between inspections. Medium-risk is 5 years and high-risk only 3 years.

### Remaining TSLI

Subtract TSLI from Max TSLI. IS with the most negative number have the most urgent need for inspection.