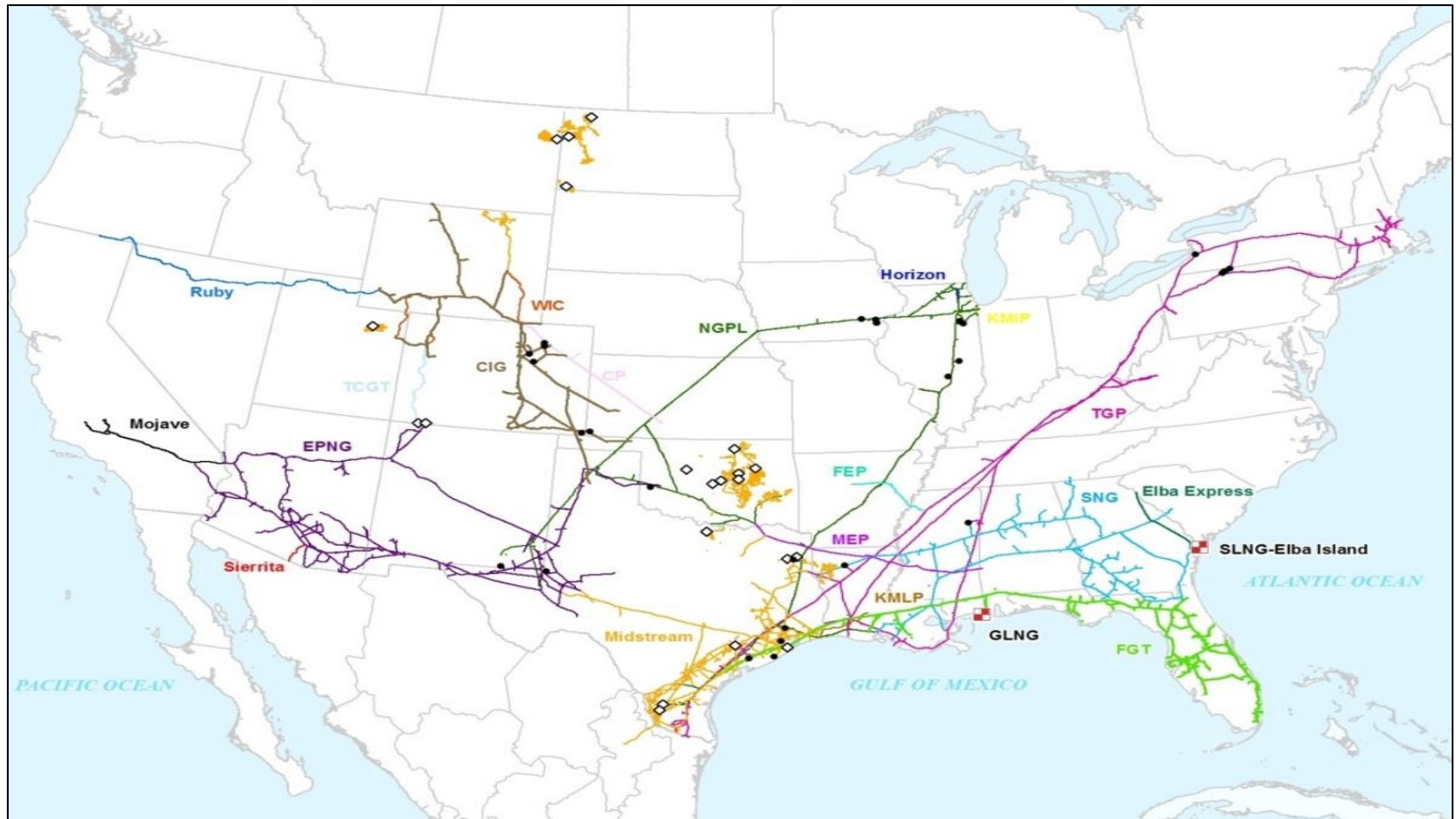




**API PSMS Workshop
Incident Investigation
Pat Carey
12/06/2019**

Kinder Morgan-- Natural Gas Pipelines



KM OMS – API 1173 PSMS

- Background
 - KM OMS applies to all BUs Products Pipelines, Terminals, CO2 and Natural Gas Pipelines (84k miles of pipe)
 - Up to the sale of KMC, under NEB jurisdiction, KMC was 5th BU. Remaining Canadian assets under Products, Mexico assets operated by NG
 - Written by current CEO in 2007 when he was the COO
 - Early 2015 conducted a comparison of OMS to 1173 using a spreadsheet

Incident Investigation

- Capture events
 - Open and honest reporting are critical
- Assess significance
 - Evaluate actual and potential consequences
- Formal v Informal Investigation
- Incident Review Committees
- Management Review
- Lessons Learned
 - Closeout of Action Items
 - Sharing findings

Capture Events

Undesired Events

- Procedure Emergency Reporting and Investigation
 - Corporate policy that drives the BU procedure
- Covers all undesirable events, including but not limited to;
 - Employee and Contractor safety
 - Pipeline Safety
 - Vehicle
 - Pipeline encroachment
 - Environmental

Business Unit Procedure

- O&M Procedure
 - Classification Chart triggers internal notifications (ERL)
- Corporate wide application to enter and track

Investigation

- Software application drives investigation requirement
- Formal v Informal
 - Major/Significant/Minor Incident
- Root Cause
 - Use of formal process such as SCAT/Tap Root/Apollo

Quality Control & Lessons Learned

- Incident Review Committees, quality and trending
 - Local
 - Regional
 - BU
 - Corporate
- Sharing
 - Management Review of “Notable” & SIF (Serious Injury or Fatality)
 - Incident Flash
- Significant incidents and lessons learned are reviewed during quarterly with Senior Operations personnel from each business unit