

# Ethanol Transportation by Pipeline

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# Outline

- TEPPCO ethanol test movement
- Test movement results
- Issues considered
- Future Opportunities
- Questions

# TEPPCO Ethanol Test Movement

- 7,700 bbl batch moved from Indianapolis to Chicago on May 22, 2007 in TEPPCO's 14" pipeline
- Purpose was to determine any product quality issues
- Ethanol trucked to Indianapolis and batch moved to Chicago

# Test Movement Results

- Batch arrived off spec on two issues:
  - Denaturant was 4.81% vs. 4.76% spec
  - Gum was 7mg/100 ml vs 5mg/100 ml spec
  - Color varied from dark to light, no spec
- Off-Spec issues should be eliminated with larger batches

# Issues Considered

- Equipment issues
  - SCC
  - Elastomers
- Environmental issues
  - OPA '90 SPCC plans
  - OSRO notifications
  - Air emission permits
  - Water disposal

# Issues Considered (cont.)

- Operational Issues
  - Interface size and disposal
  - Oil/water separation and disposal
  - O&M manual revisions
  - Product quality and testing
- Safety Issues
  - Hazardous atmosphere monitoring
  - Fire foam changes (AFFF to AR-AFFF)
  - Aerial patrol during movement

# Future Opportunities

- Ethanol Movement by Pipeline
- Marine Transportation of Ethanol
- Ethanol Injection at Loading Racks

Questions?