Environmental Due Diligence for New Oil and Gas Pipelines

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KEY POINTS

➢ Timing is everything!
➢ Know the regulations and permitting requirements.
➢ Start from the desktop.
➢ Focus on what matters.
TIMING

- Identify the longest potential permitting requirement and allow for it. Work backwards!
- Coordination with landman is critical. ROW access limits field work.
  - Allow for changes to route. Stay flexible!
- Allow for seasonal limitations
  - Protected species surveys.
  - Snow in northern climates.
KEY DUE DILIGENCE ISSUES

- Federal/State/Tribal Land.
- Contaminated Land Limitations.
- Streams, Ponds, and Wetlands (Section 404).
- Protected Species.
- Cultural Resources.
- Odds and Ends.
  - Storm Water Permits.
  - Sand and Gravel Permits.
  - Easement Requirements.
KEY DUE DILIGENCE ISSUES
Federal/State/Tribal Land

- Generally require more rigorous environmental documentation and review.
  - Federal Land: NEPA documentation.
  - State and Tribal Land: “NEPA-like” documentation.
- Allow time for review.
KEY DUE DILIGENCE ISSUES
Contaminated Land

- Not required! This is a risk management issue.
- Phase I Environmental Site Assessment approach.
  - Historic landfills and uncontrolled disposal sites.
  - Proximity to known releases of hazardous waste or fuel.
  - Proximity to high potential sources (e.g., dry cleaners, fuel terminals).
- Screen entire route, but focus on urban areas.
  - Historic aerials and topographic maps on exception basis in remote areas.
  - Sanborn maps and city directories only available for urban areas.
- Follow up with field assessment of suspect locations.
KEY DUE DILIGENCE ISSUES
Section 404 Compliance

- Almost always cross some feature that is subject to Section 404 of the Clean Water Act, and usually several.
- Often, no coordination with regulatory agencies (Corps of Engineers) required.
  - Nature of feature.
  - How crossed (trenched, suspended, bored).
- Desktop review followed by focused field evaluation.
KEY DUE DILIGENCE ISSUES
Protected Species

- Federal Threatened and Endangered Species.
- State Threatened and Endangered Species/Species of Concern.
- Migratory Birds.
- Golden and Bald Eagles.
KEY DUE DILIGENCE ISSUES
Cultural Resources

➤ Broad reach of historic or prehistoric resources:
  ▪ Buildings.
  ▪ Roads.
  ▪ Other man-made features of historic significance: dipping vats, stills, etc.
  ▪ Archaeological sites.
KEY REGULATORY ISSUES

Federal/State/Tribal Land

- Will probably have to address all regulatory issues in NEPA or “NEPA-like” document.

Contaminated Land

- Exposure of workers to contaminated excavated surface and subsurface soil and shallow groundwater.
- Disposal of contaminated soil and groundwater.
- Could potentially assume liability for contamination.
KEY REGULATORY ISSUES

Section 404 Compliance

- Nationwide Permit 12 – Utility Line Activities.
  - Limited to “loss” of 0.5 acre of Waters of the U.S. Restored trench is not a loss! Boring under a stream is also not a loss!
  - Limitation is for “single and complete project”.
    - Usually, each crossing is “single and complete”.
  - Preconstruction Notification (application) is required if:
    - Mechanized clearing in forested wetland.
    - Crossing navigable waters (Section 10) – e.g., Trinity River.
    - More than 500 feet in WOUS for any “single and complete project”.
    - Line runs parallel to stream in WOUS.
    - “Loss” of > 0.1 ac for any “single and complete project”.

- Individual Permit.
KEY REGULATORY ISSUES

Protected Species

➢ Federal.
  ▪ Endangered Species Act.
    • Protects designated “Critical Habitat” and “take” on all properties.
      “Take” includes “harass” and “harm”.
  ▪ Migratory Bird Treaty Act.
    • Very long list of birds.
    • Narrow interpretation of “take”.
  ▪ Golden and Bald Eagle Protection Act.

➢ State.
  ▪ Threatened and Endangered Species (“Species of Concern”)
    • Longer list than Federal.
    • Usually more narrow interpretation of “take”.

Protected Species
KEY REGULATORY ISSUES

Cultural Resources

- National Historic Preservation Act requires consideration of historic resources.
  - 404 permit (including NWP 12) requires compliance with NHPA).
- State agencies (e.g., Texas Historical Commission).
- Federal/State/Tribal land managers often require more rigorous documentation.
CASE HISTORY

- **525-Mile Oil Pipeline from Cushing, OK to Plattsville, CO.** Later extended to Laramie, WY.

- **New ROW.**
Federal/State/Tribal Land

- Federal, state, and tribal lands were avoided in order to fast-track the project.
- Pawnee land was crossed in CO extension.
  - “NEPA-like” documentation.
CASE HISTORY (Contd)

Contaminated Land

<table>
<thead>
<tr>
<th>Database</th>
<th>Search Distance (Mile)</th>
<th>No. of Facilities Listed</th>
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</thead>
<tbody>
<tr>
<td>Federal, State, and Local Records</td>
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</tr>
<tr>
<td>No Further Remedial Action Planned (NFRAP)</td>
<td>0.50</td>
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</tr>
<tr>
<td>Resource Conservation and Recovery Information System – Generators (RCRA-GEN)</td>
<td>0.25</td>
<td>3</td>
</tr>
<tr>
<td>Emergency Response Notification System (ERNS)</td>
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<td>3</td>
</tr>
<tr>
<td>State Spills 90</td>
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<td>7</td>
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<tr>
<td>State/Tribal Solid Waste Landfills (SWL)</td>
<td><strong>0.50</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td>State/Tribal Leaking Underground Storage Tank (LUST)</td>
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<td>3</td>
</tr>
<tr>
<td>State/Tribal Underground Storage Tank Database (UST/AST)</td>
<td>0.25</td>
<td>11</td>
</tr>
</tbody>
</table>
CASE HISTORY (Contd)

Section 404

➤ Plan was to trench small streams and wetlands and bore under rivers ("navigable waters").

➤ Began with desktop analysis, considering NWP 12 PCN requirements: topographic maps, aerial photos, USFWS wetland inventory maps.
  ▪ Potential forested wetlands.
  ▪ More than 500 feet in WOUS at any single location.
  ▪ Lines running parallel to stream in WOUS.
## CASE HISTORY (Contd)

### Section 404 (Contd)

<table>
<thead>
<tr>
<th>Stream ID</th>
<th>Stream Name</th>
<th>Map Analysis</th>
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<tbody>
<tr>
<td>OK_001</td>
<td>Unnamed tributary to Skull Creek</td>
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</tr>
<tr>
<td>OK_002</td>
<td>Unnamed tributary to Cimarron River</td>
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</tr>
<tr>
<td>OK_003</td>
<td>Unnamed tributary to Cimarron River</td>
<td>X</td>
</tr>
<tr>
<td>OK_004</td>
<td>Unnamed tributary to Short Creek</td>
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<tr>
<td>OK_005</td>
<td>Short Creek</td>
<td>X</td>
</tr>
<tr>
<td>OK_006</td>
<td>Cimarron River</td>
<td>X X</td>
</tr>
</tbody>
</table>
CASE HISTORY (Contd)

Section 404 (Contd)

- 326 stream/wetland crossings required 169 field visits and PCNs for 60 locations.

- Based on field visits, changes made at 75 crossings:
  - Forested wetlands avoided.
  - Reduce crossings of braided streams.
  - Parallel runs avoided.
  - Ponds avoided.
CASE HISTORY (Contd)

Section 404 (Contd)

➢ Tulsa, Kansas City, and Omaha Corps Districts.
➢ No IPs required – all NWP 12 authorizations.
➢ Authorizations issued by all three districts.
CASE HISTORY (Contd)

Protected Species

- Identified potential habitat by desktop, and field surveys.
- Addressed federal species in PCNs.
  - Arkansas Darter.
  - Arkansas River Shiner.
  - Topeka Shiner.
  - Bald Eagle.
  - Interior Least Tern.
  - Lesser Prairie Chicken (had to avoid a lek).
  - Piping Plover.
  - Whooping Crane.
CASE HISTORY (Contd)

Protected Species (Contd)

- State species and migratory birds addressed internally (no specific reporting requirements for NWP).
- Construction personnel made aware of potential state species.
- Clearing of high-potential migratory bird nesting areas cleared in non-nesting season.
CASE HISTORY (Contd)

Cultural Resources

- Desktop screening.
  - Review of existing information from state historical agencies.
  - Topographic maps.
  - Soil maps.

- High potential sites evaluated in field.
  - Shovel testing.

- A few cultural sites in vicinity of ROW, but none in ROW and no impacts were anticipated.

- Approved by SHPO and Corps.
COST/SCHEDULE FACTORS

1. Length of route.

2. Geography.
   - Arid west Texas has fewer aquatic features, less diversity of habitat, and fewer cultural resources than east Texas.

3. Individual Permits and federal, state, and tribal lands add time to the process.

4. Access issues and constantly changing ROW alignments can create significant delays and inefficiencies.
RULES OF THUMB/LESSONS LEARNED

1. Due diligence is performed to (1) reduce liability and construction delays/costs and (2) provide information for necessary permits/authorizations. KNOW THE DIFFERENCE AND SCOPE ACCORDINGLY.

2. Know the regulatory requirements and WORK BACKWARDS. Otherwise, it’s just a research project.

3. Let the initial desktop work focus the field work.

4. Communicate with the regulatory agencies. They’re all different and every day is a new day.

5. Be prepared for ROW changes while in the field. It’s going to happen.
QUESTIONS?