TxDOT's Construction EMS Implementation Plan

2008 AASHTO Subcommittee on Construction Meeting
August 3-7, 2008
San Antonio, Texas

Environment and Human Resources Session
Monica Scott
TxDOT, Environmental Affairs Division
What is...?

- What is an EMS?
- Why is TxDOT implementing an EMS?
- Who at TxDOT is working on the EMS?
- What are the required EPA reports?
- What does the EMS Pilot Implementation Plan include?
- What are the objectives in the EMS?
- What is Construction’s role in performance measures?
- Who should I contact for further questions regarding the EMS?
What is an Environmental Management System (EMS)?

- A formal system to improve environmental compliance
- A process that is:
  - integrated into road construction projects
  - continually evaluated and improved.
  - built on the principals of “Plan, Do, Check and Act”
Why is TxDOT implementing an EMS?

• EPA ratified a Consent Agreement and Final Order (CAFO) with TxDOT in April 2007

• Order requires a Supplemental Environmental Project (SEP) to develop and implement an EMS Statewide

• The SEP must be fully completed by July 2013
Who at TxDOT is working on the EMS?
What are the required EPA reports?

<table>
<thead>
<tr>
<th>REPORT NAME</th>
<th>DUE DATE</th>
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<tbody>
<tr>
<td>Development Team and Schedule</td>
<td>June 2007</td>
</tr>
<tr>
<td>Gap Analysis</td>
<td>September 2007</td>
</tr>
<tr>
<td>EMS Pilot Implementation Plan</td>
<td>June 2008</td>
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<td>EMS Pilot Quarterly Reports March</td>
<td>March 2009 - 2011</td>
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<tr>
<td>Pilot EMS Evaluation Report</td>
<td>February 2010</td>
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<tr>
<td>Statewide Implementation Plan</td>
<td>August 2010</td>
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<tr>
<td>Verifier &amp; Verification Review Plan</td>
<td>January 2012</td>
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<td>EMS Verification Review Report</td>
<td>June 2012</td>
</tr>
<tr>
<td>SEP Completion Report</td>
<td>December 2012</td>
</tr>
<tr>
<td>SEP Completed</td>
<td>July 2013</td>
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</tbody>
</table>
What does the EMS Pilot Implementation Plan include?

- Gap Analysis Summary
- EMS Policy Statement
- EMS Process
  - Organizational Structure
  - Roles and Responsibilities
- Environmental Training
- Storm Water Objective Projects
- EMS Pilot Projects and Implementation Schedule
What’s in the plan? (cont.)

<table>
<thead>
<tr>
<th>Gap Analysis Scores</th>
<th>Overall Score</th>
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<tbody>
<tr>
<td>EMS Policy Statement</td>
<td>0</td>
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<tr>
<td>Commitment to achieving compliance, minimize environmental risks, continual improvement in environmental performance, commitment of EMS resources.</td>
<td>0</td>
</tr>
<tr>
<td>Identification of Environmental Requirements</td>
<td>1.8</td>
</tr>
<tr>
<td>Protocol to identify, interpret, document and communicate environmental requirements.</td>
<td>1.8</td>
</tr>
<tr>
<td>Defined Roles and Responsibilities</td>
<td>2.0</td>
</tr>
<tr>
<td>Clearly define and communicate to all applicable organizational roles and responsibilities associated with an environmental requirement.</td>
<td>2.0</td>
</tr>
<tr>
<td>Assessment, Prevention and Control Procedures</td>
<td>1.9</td>
</tr>
<tr>
<td>Ongoing process for assessing construction operations for the purpose of maintaining compliance with environmental requirements.</td>
<td>1.9</td>
</tr>
<tr>
<td>Training, Awareness and Competency Standards</td>
<td>1.4</td>
</tr>
<tr>
<td>Procedures to identify specific education and training</td>
<td>1.4</td>
</tr>
<tr>
<td>Documentation Control Procedures</td>
<td>1.8</td>
</tr>
<tr>
<td>Procedure for maintaining records and documentation in support of the EMS.</td>
<td>1.8</td>
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</tbody>
</table>

Rating Scale 0 to 4. 0=No Equivalent EMS Practices 4=Equivalent practices in place
What’s in the plan? (cont.)

• **EMS Policy Statement**
  - Communicates the administrations commitment to the EMS
  - Commitment to improved environmental compliance

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**TxDOT Road Construction Environmental Management System Policy Statement**

The Texas Department of Transportation (TxDOT) will fully integrate environmental considerations into road construction operations through an environmental management system (EMS). TxDOT commits to: compliance with all applicable environmental laws and regulations, minimizing pollution and associated risks to the environment, and supporting an ongoing process for continual improvement in TxDOT’s environmental performance. The EMS will communicate environmental management practices and compliance requirements to all affected TxDOT personnel, consultants, contractors, and other participants in TxDOT’s road construction operations.

TxDOT’s management is fully committed to support all aspects of the EMS including personnel and resources for development, implementation, maintenance, and improvement. In turn, each employee is expected to exercise his or her responsibility on behalf of TxDOT to ensure that the commitments and goals of the EMS are diligently carried out.

[Signature]

Executive Director
Texas Department of Transportation

January 2, 2008
What’s in the plan? (cont.)

• EMS process description
• TxDOT organizational structure
• Roles and responsibilities in the EMS
• Schedule for development and deployment of the EMS through FY 2013 including:
  – Pilot automation system
  – Procedures for the EMS
  – Integration of the EMS into the TxDOT manual system
  – EPA required reports
What’s in the plan? (cont.)

• **Environmental Training Plan including:**
  - 14 new iWay training courses for TxDOT and the Contractor to communicate:
    - EMS awareness, processes and procedures,
    - environmental requirements for road construction in each stage of a project:
      - Planning
      - PS&E
      - Letting
      - Construction
What’s in the plan? (cont.)

- **Storm Water Objective Projects** for each pilot District
  - Project Implementation Process
    - Key Personnel
    - Training Qualifications - Amended training matrix
    - Monitoring/Inspection Requirements - More stringent than compliance
What’s in the plan? (cont.)

• **EMS Pilot Projects** for each Pilot District
  - Dallas, Waco and Yoakum Districts each selected 9 projects to pilot the EMS
    • Evaluate each stage of a road construction project
    • Deploy EMS procedures
    • Complete Environmental Checklist at each stage
What’s in the plan? (cont.)

- A schedule for quarterly reporting to the EPA during the pilot that will include an evaluation of EMS performance for each stage of a project and other development status.
What is Construction’s role in performance measures?

- Complete the Construction Stage Gate
- Contractor requirements for environmental monitoring and inspection in TxDOT’s Standards and Specifications, General Requirements and Covenants
- Metric Evaluations:
  - 1) Non-conformance
  - 2) Deficiency
  - 3) Conforms
  - 4) Environmental Excellence
What are the goals and objectives in the EMS?

• **Goal:**
  – Improved environmental compliance, and
  – Increased Operational efficiency.

• **Objective:**
  – 95% conformance during Pilot Program.
  – Training objectives will be established during Statewide deployment of EMS.
Who should I contact for further questions regarding the EMS?

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For more info at TxDOT go to:
TxDOT Crossroads
ENV website – new EMS link