NTPEP Benefits

A State’s Perspective

Jason Davis
LA DOTD Materials Lab
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Louisiana Involvement

• Involved with NTPEP since 1995

• Benefits include:
  • Procedural (approvals, specifications)
  • Economic (money saved on testing)
  • Academic (material knowledge)
Louisiana Involvement

- Outdoor weathering on sign sheeting since 1970’s
- Accelerated weathering a requirement for 30 years
- LA weathering data published in SASHTO Regional Test Facility in 1989
NTPEP in Approval Process

- Written into Qualification Procedures
  - Pavement Markings
  - Sign Sheeting Materials
  - Raised Pavement Markers / Adhesives
  - Structural Steel Coatings
  - Traffic Barrels / Delineator Posts
  - Geotextile Fabrics
  - Plastic Pipe
NTPEP in Approval Process

- Written into Qualification Procedures
  - Sign Sheeting Materials
  - 3 year data from Louisiana deck
  - 4 total test decks available

- Structural Steel Coatings
  - 2 year weathering and lab testing
NTPEP in Approval Process

Salt Fog Exposure 5000 hours

Atmospheric exposure
Specification Development

- New specifications
  - Fluorescent sign sheeting
  - Thermoplastic striping
Specification Development

Comparison of Fluorescent Orange Materials
Data Consistency

• New specifications
  – Fluorescent sign sheeting
  – Thermoplastic striping

• Product consistency
  – Different submittal years
  – Different weathering conditions
Data Consistency

Four submittal years of the same product

![Graph showing data consistency over time](image-url)
Data Consistency

Two submittal years of one product
Material Comparison

• Side-by-side evaluations
  – Polyurea and Waterborne Traffic Paint
Material Comparison

Polyurea compared with Waterborne Paints
Material Comparison

• Side-by-side evaluations
  – Polyurea and Waterborne Traffic Paint
• New materials and existing products
  – Is this the right material?
Material Effectiveness

- Is a material appropriate for the intended use?

Evaluation of Fluorescent Pink Materials
Material Performance

- Wide range of performance
  - Sometimes, seeing is believing
Testing Accuracy

- Round-Robin tests between states
  - Ensure accuracy and consistency

![Retroreflectivity Analysis, $R_A$ at $-4^\circ$ Ent. / $0.2^\circ$ Obs.]

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Cost Savings Benefits

• LA estimated 2000-2006 savings
  – Pavement Markings – $125,000
  – Raised Pavement Markers - $36,000
  – Geotextile Materials - $32,000
  – Joint Materials - $1,200
  – Plastic Pipe - $3,000
  – Sign Sheeting Materials - $32,000
  – Structural Steel Coatings - $50,000

Estimate sources include NTPEP Model Deployment Handbook
NTPEP in Approval Process

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  – Sign Sheeting Materials
  – Raised Pavement Markers / Adhesives
  – Structural Steel Coatings
  – Traffic Barrels / Delineator Posts
  – Geotextile Fabrics
  – Plastic Pipe

The cost savings add up!
Summary

- NTPEP integrated into LA procedures
- Adding more as program expands
- Significant time and money savings
- Experienced DOT testing labs
- Data reviewed for accuracy
- Round-Robin testing
- State and industry support
Thank you!

Questions?