

Fog Seals and Rejuvenating Seal



A PPTG Partnering Accomplishment

Subtask Group Progress Report

CO-Chairs

John Fox - Caltrans

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History

- Memorandum Signed By: Bob Coleman
Deputy Director Project Development,
November 3, 1998
- Stop all fog seals and rejuvenating seals
by contract item in the traveled way.
- Sights the need for **guidance** to be
Developed.

Steps completed for fog seals and rejuvenating seals

- The approval of the maintenance technical advisory Guide (MTAG)
- Published Chapter 6 independently of the MTAG - Fog Seal and Rejuvenating Seal guidelines
- PPTG task group worked with PST to develop Clear SSP language to insure user safety via quality control
- Generated Pilot Project with NSSP for Rejuvenating Seals, D-4 Route 29 - December 2004-Being Advertised Now.

SSP Highlights (Fog Seals)

- Fog seal coat shall conform to the provisions in Section 37-1, "Seal Coats," of the Standard Specifications and these special provisions.
- Asphaltic emulsion shall be either SS1h or CSS1h or CQS1h grade.
- The application rate of the fog seal coat (asphaltic emulsion and 40% to 50% added water) shall be spread at a rate of 0.15- 0.54- L/m².
- The exact dilution ratio and rate of application will be determined by the Contractor. Final surface shall produce a surface having a coefficient of friction not less than 0.30 as determined by California Test 342. Tests to determine coefficient of friction will be made before pavement is open to public traffic.
- The Contractor shall submit a contingency plan for the approval of the Engineer, which will include corrective action if the coefficient of friction is less than 0.30

SSP Highlights (Rej.Seals)

37-42-600

- 5 alternatives Type A,B,C,D and E
- The final application rate determined by vendor. SSP provides ranges by type
- Final surface shall produce a surface having a coefficient of friction not less than 0.30 as determined by California Test 342.
- The Contractor shall submit a contingency plan for the approval of the Engineer, which will include corrective action if the coefficient of friction is less then 0.30

Next Steps

- Notify districts regarding guidance. Place SSP's on OE server.
- Develop correlation between other available skid test methods and CT 342. Use CT 342 based on available resources until correlation is complete.
- Districts select a limited number of projects and submit to HQ for approval. Based on availability CT 342
- Monitor projects

Guidance

- MTAG & SSP's has been provided.
- Rejuvenating Seal Specification is on the OE server 04-06-05.
- Fog Seal SSP will go to OE for posting on server.

Correlation with CT 342 needed

- Since CT 342 satisfies Caltrans comfort zone, develop a correlation curve with a portable alternate device.

Select Projects

- Find Districts that will sponsor a project
- Set criteria
 - *Minimum Existing Pavement Skid Number- 0.38*
- Initially, Insure that the number of projects match the available testing resources.
- Include industry input for prescription.
 - *Follow manufacturer recommendations*

Performance Monitoring

What?

- Skid numbers-Yes
- Effect of different fog & rejuvenating seals on various surface textures (e.g. OG, DG, GG, chip seals, slurry seals) & different aged pavements. Yes
- Life cycle cost analysis with control sections. Yes
- Agency log and documentation. Yes
 - Pre-existing condition & skid number
 - Ambient & pavement temperature
 - Environment - fog, rain, sun
- Monitor Agency Table "C" wet accidents
- Agency Table C Wet Accidents. Yes

Who Monitors?

- Subtask Group will monitor projects
- Frequency - semi-annually
- Time frame - 3-year minimum
- Select specific projects for monitoring
 - *Various geographic areas*
 - *Various surfaces*
- Responsibility for data base. HQ Roadway Maintenance.

Summary Statement:

Fog Seals and Rejuvenating Seals are one of the best maintenance tools available for pavement preservation provided they are done at the right time. These tools provide a huge benefit and now is the time to invest in the future of our highways.

Thanks !

John Fox - Caltrans
Bob McCrea-Industry