



UNDERSTANDING MODIFIED ASPHALT BINDER TECHNOLOGY

Arizona LTAP Center, Phoenix, Arizona, 10 April 2014

Time	Topic	Speaker
8:00 AM	Welcome and Announcements	Paul Burch, Arizona Dept of Transportation, Co-Chair Arizona Pavements & Materials Conference
MODERATOR: Bill Hurguy, Arizona DOT		
8:15	Introduction to Asphalt Materials, Manufacture, and Modification	Bob McGennis, HollyFrontier Refining & Marketing
9:30	BREAK	-
9:45	Testing Asphalt With Emphasis on Modified Asphalt Characterization	Mohammad Rahman, Paramount Petroleum
10:45	BREAK	-
11:00	Polymer Modification	Chris Lubbers, Kraton Polymers
12:00	LUNCH	-
MODERATOR: Joe Phillips, AMEC		
1:00 PM	Chemical Modification	Henry Romagosa, ICL Performance Products
1:45	Crumb Rubber Asphalt Systems	Julie Kliewer, Arizona DOT
2:45	BREAK	-
3:00	Emerging Products and Technologies	Shane Underwood, Arizona State University
3:30	Discussion of Arizona Specifications for Modified Asphalt Binders	Jeff Benedict, Valero Energy
4:00	Close out	Kamil Kaloush, Arizona State University, Co-Chair Arizona Pavements & Materials Conference

BIO - Bob McGennis

Bob McGennis is the Asphalt Technical Manager for the HollyFrontier Companies, a position he has held since 1998. He has worked practically his entire 35+ year professional career in the asphalt pavement construction and technology field. He received Bachelors and Masters of Science degrees in Civil Engineering from the University of Texas at Austin and is a registered professional engineer in Arizona, New Mexico, and Texas. In his spare time, Bob enjoys exploring the trails and roads of southern Arizona on his bicycle and recently, he restored a vintage Ford Bronco to better than new condition.

BIO – Mohammad (Mo) Rahman

Mohammad A. Rahman has been in the construction materials industry for the last 17 years working in various positions from QC engineer for Granite Construction in Salt Lake City, Utah to currently working as tech services manager for Paramount Petroleum in Phoenix, Arizona. He earned his bachelors and masters degrees in civil engineering from University of Nevada, Reno in 1995 and 1997 respectively, with an emphasis in pavement materials. He is a registered professional engineer in the states of Utah, Arizona and New Mexico.

BIO- Chris Lubbers

Chris Lubbers currently serves as technical sales and market development manager for emulsions in Kraton Polymers' Paving and Roofing business unit headquartered in Houston, TX. He received a B.S in Chemical Engineering from Ohio University and an M.S in Chemical Engineering from the University of Notre Dame. Chris has spent the past thirteen years in the asphalt industry, primarily focused on polymer-modified emulsions and hot-mix paving binders as well as polymer-modified roofing membranes. He is an active member of AMAP, AI, AEMA, and the various regional pavement preservation partnerships (PPP's).

BIO – Henry Romagosa

Henry Romagosa has worked in the asphalt industry for over 35 years. In his work with Owens Corning, Chevron, and Others, he has specialized in the development and promotion of modified asphalts. In his current position as market development manager with ICL, his goal has been the development of premium formulations using polyphosphoric acid by itself or in combination with other modifiers. Henry is actively involved with leading technical associations, expert task groups, and user producer groups.

This may be his last public appearance at a public forum as a full-time employee, since he will be retiring at the end of May.

BIO - Shane Underwood

Dr. Shane Underwood is an Assistant Professor in the School of Sustainable Engineering and the Built Environment in the Ira A. Fulton Schools of Engineering at Arizona State University. His research and teaching focuses on pavements and asphalt material modeling. He received his doctorate degree in Civil Engineering from North Carolina State University with a focus on the multiscale characterization and modeling of asphalt concrete. His work has been published in more than 35 peer reviewed journal papers including the Transportation Research Record, Association of Asphalt Paving Technologists, and ASCE Journal of Engineering Mechanics.

BIO- Julie Kliewer

Julie Kliewer has been with the Arizona Department for almost 20 years. She has held numerous positions with the Department, including Pavements Materials Testing Engineer and District Engineer for the Phoenix Construction District. She now serves as the Assistant State Engineer for Construction. Julie holds a BS and MS in Forest Engineering and a BS and PhD in Civil Engineering, all from Oregon State University. While at OSU she was a faculty member in the Forest Engineering Department, whose students annually convey the Julie Kliewer Excellence in Mentoring Award to a deserving faculty member. When not being mean to the poor highway contractors of Arizona, she enjoys producing beautiful stained glass artwork and lampwork beads.

BIO – Jeff Benedict

Jeff has lived in Arizona for more than 55 years, is a Brophy Boy and an Arizona Wildcat for life. He has been in the liquid asphalt industry for over 32 years and currently is the Senior Sales manager for the southwest for Valero Marketing and Supply. Jeff co-chairs the Asphalt Paving and Technical Committee of the Arizona Rock Products Association, and in that capacity has worked tirelessly with local and state agencies on issues pertaining to the successful use of asphalt materials. Jeff now feels that he knows of a few skeletons in others' closets to avoid and he is known to say that "there is no reason to make the same mistakes that he has."