



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Office of Airport Safety and  
Standards

800 Independence Ave., SW  
Washington, DC 20591

JAN 15 2020

Ms. Mary Baeten  
President, MCB Industries, Inc.  
310 North Wisconsin, Suite E  
De Pere, WI 54115

Dear Ms. Baeten:

Thank you for your inquiry letter dated December 13, 2019, and copy of the Intertek report. We began the research request initiation process for the faying surface friction. Based on cost and contractor availability, we anticipate the research to start this calendar year. We will continue to share future testing process and schedule, as always, during IES Industry Group meetings.

We agree - coating the base flanges does increase the frictional characteristics of the faying surfaces, and would be cost beneficial to safety. The research we are proposing will determine the standard measurement metric applied to faying surfaces, and whether or not, a coated spacer ring will generate sufficient friction for current specifications of manufactured lights and light bases. The more economical and practical approach method is to apply coatings to spacer rings. The implementation can be immediate at all airports instead of having light bases replaced with a certain coating on its faying surfaces. The results of the research would help us provide guidance in AC 150-5345-42 for friction values.

The calculations from the testing that you presented is on a sustained shear force applied to the light fixture. In actuality, the full maximum weight of a fully loaded aircraft in a locked wheel situation rarely occurs. Aircraft generate full maximum weights only upon take-offs, which would be half the operations worldwide. Because of modern aircraft Anti-Skid Brake Systems (ASBS's), full application of brake pressure/torque only last fractions of a second. The probability of an aircraft tire generating full brake torque, while being directly located on a light fixture, is an extreme condition, and is applied for a very short time duration based on aircraft speed. If the maximum load is applied for a fraction of a second, at a lower friction value, we doubt there will be an issue. This is our justification for allowing lower faying surface "mu" assumption.

Please accept my apology if you feel the meetings between the FAA and industry came across like lectures and not a two-way dialogue. Our speakers are always open to questions and answers session during or after every presentation we conduct. The FAA is an invited guest to the IES Industry Group. We suggest, as part of IES bi-annual meetings, for industry to share the exact issues you want to discuss ahead of time. We will share the test plan, and timeline once available. Discussions during committee meetings between our office and industry are welcomed. Our team look forward to a constructive and collaborative meetings with the IES Industry Group.

Please feel free to contact me with any further questions you may have.

Sincerely,

A handwritten signature in blue ink that reads "Khalil Kods". The signature is written in a cursive, flowing style.

Khalil E. Kods P.E. PMP  
Manager  
Airport Engineering Division, AAS-100  
202-267-7669  
[Khalil.Kods@faa.gov](mailto:Khalil.Kods@faa.gov)