Inter-Office Correspondence

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To: Mr. Mark Triplett	Date: December 3, 2007
	From: Tim E. Boger
	Location: Delaware, OH
	Subject: Corrosion Testing, ECK Systems

This report summarizes the salt spray corrosion testing performed on the panels you sent to the lab. The idea behind this testing is to evaluate ECK corrosion prevention coating when assembling components for commercial vehicles. There were four mock scale assemblies sent in for 1000 hours corrosion testing. Their variations are described below. This testing is referenced to lab notebook RF159-56. The following information was recorded during the testing.

Assembly Variations: All painting and assembly was done on location following customer's current process.

1. Original procedure with no ECK. Flat aluminum panels with small access door riveted on it.
2. Same configuration as with panel one. New procedure with ECK applied under access door and rivets.
3. Original procedure with no ECK. Steel post and aluminum grate swing door attached with stainless steel hinge and bolts. This assembly is painted after all components are connected.
4. Same configuration as with panel three. ECK is applied under hinge and on bolts before assembly.

Salt Spray Corrosion Test Results: 1000 hours exposure in ASTM B117.

Assembly	1000 hours Results
1	15mm bad blistering around access door, bad blisters at hinge and rivets, panel edges are minimally blistered.
2	Some corrosion at access door but no blistering, blistering around hinge but not on rivets, no blisters on panel edges.
3	Up to 5mm blistering on steel post at hinge, backside of bolts has bad blistering.
4	No blistering on steel post at hinge, bad blistering on backside of bolts.

Summary
- 1000 hours in this corrosive environment is extensive exposure.
- It's obvious that ECK has dramatically improved assemblies 2 and 4 abilities to resist corrosion and blistering.
- The use of ECK in this manufacturing process will improve the longevity of units it is used on.

Cc. Mike Cooney, Richard Hagenlock, Dave Chapman