

FCA US LLC Chronology
EPS Control Circuit Board
Submitted on March 22, 2016

- On August 25, 2015, FCA US LLC (“FCA US”) supplier quality opened an investigation based on returned EPS units with customer complaints of loss of power steering. Twenty-two failed parts have been returned to date with contamination on the top side of the EPS control circuit board. All these returned parts had circuit boards with a build date of “5006” (January 6, 2015).
- In October 2015, the EPS Tier 1 supplier began a series of Design of Experiment (“DOE”) tests to understand the causal factors of the contamination.
- On November 2, 2015, FCA US LLC (Vehicle Safety and Regulatory Compliance (“VSRC”) organization opened an investigation on this issue.
- On January 11, 2016, the supplier provided traceability of the suspect EPS units which included corrections in ship-to information and total number of suspect parts installed on subject vehicles. Circuit boards from the suspect build date were tracked through steering gear production and to specific production vehicles.
- On February 17, 2016, the final DOE tests were provided by the supplier to FCA US confirming the root cause was low passivated flux contamination reaction to potting material over time. Sub-tier control circuit board supplier records were provided indicating maintenance on the bottom pick-and-place equipment during the manufacture of the suspect lot which resulted in line shutdown/ restart of top side oven.
- The suspect period for Warren Truck Assembly Plant (“WTAP”) was established as January 23, 2015 to September 13, 2015, and the suspect period for Saltillo Truck Assembly Plant (“STAP”) was established as January 22, 2015 to February 17, 2015. The suspect period for both plants was developed using the supplier and FCA US traceability.
- As of March 11, 2016, FCA US identified approximately 1 CAIR, zero VOQs and 3 field reports related to this issue.
- As of March 11, 2016, FCA US is unaware of any accidents or injuries potentially related to this issue.
- Root cause was determined to be poorly passivated flux volatiles on the terminal surface due to low top side reaction oven temperature/nitrogen content which reacted, over time, to circuit board potting material through thin conformal coating application.
- On March 15, 2015, FCA US determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall of the affected vehicles.