CHRYSLER

October 15, 2014

Ms. Nancy Lummen Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Recall Management Division (NVS-215)
Room: W48-302
1200 New Jersey Ave. SE
Washington, DC 20590

Dear Ms. Lewis:

The following information is Chrysler's supplemental chronology submitted pursuant to the requirements of 49 CFR Part 573.6, Defect and Noncompliance Reports, which contains details of a safety defect in vehicles as determined by Chrysler Group LLC.

573.6(c)(6): Chronology of Principal Events Leading to Determination of a Safety Defect

- In August, 2014, Chrysler opened an investigation into concerns of alternator-related engine stall while driving, increased steering effort, Antilock Brake System/Electronic Stability Control deactivation or fire / smoke in 2011-2012 MY Dodge Charger vehicles.
- Chrysler's investigation analyzed alternators from vehicles exhibiting these conditions, and found indications of thermal fatigue of the alternators' silicone diodes.
- Based on warranty data analysis, 160 Amp alternator part returns and a common control system design, Chrysler expanded the investigation scope to include WD, WK, LC, and the LX platforms, equipped with Electric Hydraulic Power Steering ("EHPS"), but limited to the 3.6L equipped with a 160 Amp Alternator.
- The root cause was determined to be thermal fatigue in the silicon diode within the alternator rectifier bridge, due to a combination of high operating temperatures and cyclical system load conditions, induced by the EHPS.
- This condition can lead to failure of the 20 Amp Silicon Rubber potted Diode(s) in the 160 Amp alternator.
- Failure mode of the 160 Amp alternators can range from no output, reduced output, or a fully shorted to ground condition.
- These modes can have corresponding variability in time to failure and warning to the driver.
- During certain low battery voltage conditions associated with the 160 Amp alternator silicon diode thermal fatigue failures, a rapid sequential thermal failure of the silicon diodes may cause engine stalling without the advanced warning provided by prolonged illumination of

the “Charging System Indication Lamp” or by the EVIC, the electronic vehicle information center.

- Depending on the failure mode and timing, system voltage may drop to critical levels, disabling systems such as the, “Antilock Brake System/Electronic Stability Control”, “Engine Control Module/Central Body Controller”, or a total vehicle electrical system shut down (in the event of a short to ground failure mode).
- The suspect period was established as 2011-2014 MY LC/LD/LX/WD Vehicles & 2012-2014 MY WK Vehicles equipped with a 3.6L Engine (ERB Sales Code)/160 Amp Alternator (BAB Sales Code) built between April 22, 2010 through January 2, 2014.
- As of September 23, 2014, Chrysler identified approximately 322 CAIRs, 55 VOQs and 17 field reports which relate to, or may relate, to this issue.
- As of August 25, 2014 Chrysler is aware of one accident which relates to, or may relate to, this issue.
- On September 30, 2014, Chrysler determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall.