

Your Ref: DMPC2100093H/CT  
Our Ref : CS4/ICS21003618/N

30 March 2021

**M/s ECICS Limited**  
10 Eunos Road 8 #09-04A  
Singapore Post Centre  
Singapore 408600  
(Motor Claims Department)

### **TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE INSURED VEHICLE SKK 4937H ON 17 MARCH 2021**

1. We refer to your letter dated 19 March 2021 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle SKK 4937H (herein referred to as "**Insured Vehicle**") are set out below.

#### **Inspection of the Insured Vehicle**

3. The Insured Vehicle was physically inspected on 22 March 2021 at the premises of BH Auto Services Pte. Ltd. (herein referred to as "**BH**") located at 1 Sin Ming Industrial Estate Sector C, Singapore 575636.
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: SKK 4937H
Make / Model	: MINI COOPER COUNTRYMAN 1.6 AT ABS 5DR 2WD
Chassis No	: WMWZB32010WL93954
Year of Registration	: July 2013
Mileage	: N.A. (battery melted)

5. The Insured Vehicle was observed to have sustained severe fire damage all around. Its engine compartment and interior compartment were completely burnt. Rust had accumulated all over the Insured Vehicle as a result of exposure to environmental condition for a period of time. See photos 1 – 4 below.



**Photo 1** shows the general view of the frontal portion of the Insured Vehicle at the time of our inspection. The Insured Vehicle was observed to have sustained extensive fire damage all around. Its engine compartment and interior compartment were completely burnt. Rust had accumulated all over the Insured Vehicle as a result of exposure to environmental condition for a period of time.



**Photo 2** shows the general view of the left body of the Insured Vehicle at the time of our inspection. The Insured Vehicle was observed to have sustained extensive fire damage all around. Rust had accumulated all over the Insured Vehicle as a result of exposure to environmental condition for a period of time.





**Photo 3** shows the general view of the interior compartment of the Insured Vehicle at the time of our inspection. Its interior compartment was completely burnt.

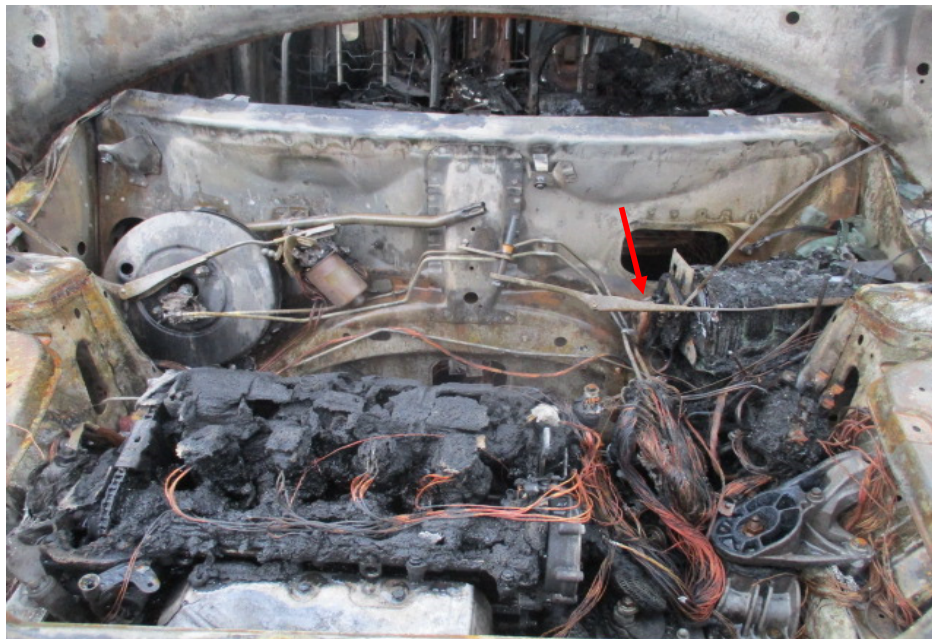


**Photo 4** shows the engine compartment of the Insured Vehicle at the time of our inspection. The entire engine compartment of the Insured Vehicle was observed to be severely burnt. Most of the parts inside the engine compartment were found to be burnt and/or melted as a result of the fire.

6. At the time of inspection of the Insured Vehicle, we did not find any additionally fitted electronic and/or electrical component(s) on the Insured Vehicle. There also appears to be no modification(s) fitted on the Insured Vehicle.

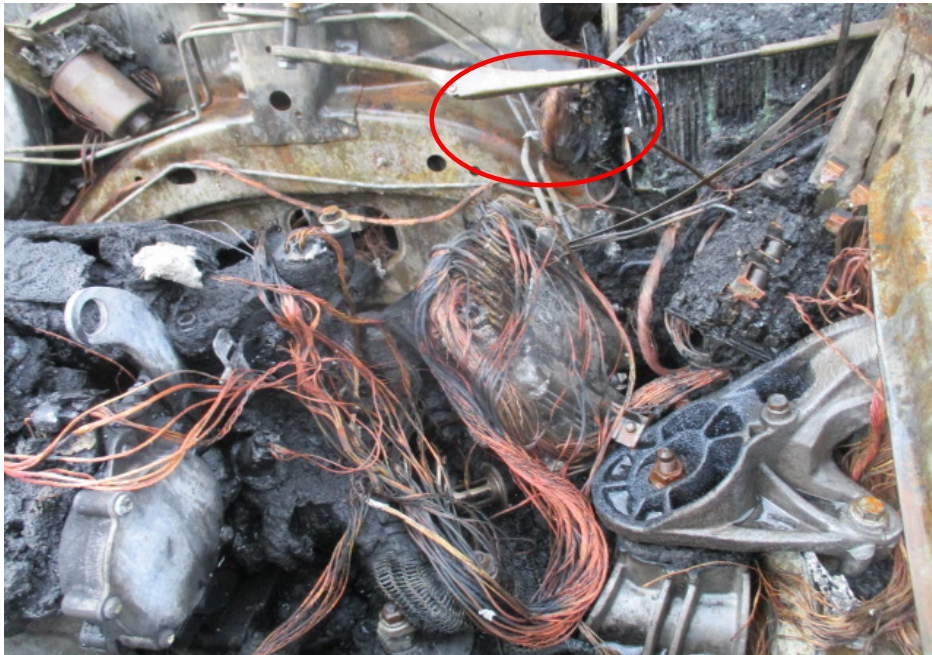
### **Investigation and Technical Analysis**

7. For this particular case, the fire appears to have originated within the engine compartment of the Insured Vehicle as this was the area where the damage of fire nature was most severe.
8. Upon closer examination of the rear portion of the engine compartment, which was where the fire to the Insured Vehicle had likely started, we had found faint traces of greenish residue on several stretches of wirings. These wirings were original factory fitted wirings that were around the rear portion of the engine compartment. The presence of greenish residue indicates internal heating of copper wires, a sign of an electrical short circuit occurring. The greenish residue is normally left behind from oxidation as a result of chemical reaction involving the copper wires. This physical evidence would appear to suggest that the cause of fire to the Insured Vehicle could have possibly been due to electrical in nature. See photos 5 - 7 below.



**Photo 5** shows the factory fitted wirings around the rear portion of the engine compartment which is near to the vicinity where the fire to the Insured Vehicle had likely started. We observed faint traces of greenish residue on some of these wirings (arrowed).





**Photo 6** shows a closer view of the wirings around the rear portion of the engine compartment. We observed faint traces of greenish residue on some of these wirings (circled). This seems to suggest the occurrence of an electrical short circuit.



**Photo 7** shows a close up view of the faint greenish residue found on the wirings around the rear portion of the engine compartment (arrowed). The presence of greenish residue indicates internal heating of copper wires, a sign of an electrical short circuit.

9. From the Singapore Police Report No. G/20210317/7060 and Accident Statement, which was made by Ms Akiko Yonezawa (herein referred to as “**Ms Akiko**”), we note that the fire to the Insured Vehicle had started at a time when the engine had ceased. Ms Akiko was first alerted of the fire by a nearby construction worker.
10. We managed to speak to Ms Akiko on 25 March 2021 where we were able to gather further information pertaining to the incident as well as to the history of the Insured Vehicle. She mentioned that at around 1600 hours, she was on the way home to Sin Ming Walk from Rangoon Road. She travelled via Thomson Road into Sin Ming Avenue. While she was waiting to turn into Sin Ming Walk, suddenly the engine stopped. Ms Akiko tried to start up the Insured Vehicle again but it would not start. She exited the Insured Vehicle and called her husband, Mr Marc Ho Kerk Tze (herein referred to as “**Mr Ho**”). It was then that a nearby construction worker signalled to Ms Akiko that the Insured Vehicle was on fire. Ms Akiko mentioned that the fire was coming from the engine compartment. There was smoke emitting from the front bonnet.
11. The construction workers had 2 small fire extinguishers and tried to put out the fire but to no avail. They advised Ms Akiko to step away from the Insured Vehicle. Ms Akiko called 995 but the operator informed her that the SCDF was already on its way to the incident location. Both police and SCDF arrived shortly after. The fire was put out swiftly. Ms Akiko was questioned by the police and her statement was taken. She also assisted the SCDF in their preliminary investigations. Ms Akiko mentioned that Mr Ho had arrived at the incident location by 1700 hours. Mr Ho made towing arrangements for the Insured Vehicle which was towed to BH at 1830 hours.
12. Mr Ho lodged a police report online at 2131 hours. An insurance report was made at BH the following day, 18 March 2021 at 1135 hours.
13. With regard to the history of the Insured Vehicle, we were able to gather from Mr Ho that the Insured Vehicle was purchased second hand when it was 3 months old about 7 years ago. He is the owner and main driver of the Insured Vehicle.
14. Pertaining to the maintenance aspect, Mr Ho services the Insured Vehicle periodically every 10,000km.

15. To the best of his recollection, there has not been any major mechanical problem and/or electrical problem with the Insured Vehicle. Mr Ho also informed us that ever since he purchased the Insured Vehicle, he has not done any modification(s) and/or additionally fitted any electrical or electronic component(s) to the Insured Vehicle.

### **Incident Scene Photographs**

16. We were able to obtain from Mr Ho several photographs of the Insured Vehicle which were taken during and after the fire had been extinguished. In general, the information that could be gathered from these photographs had corresponded to the events that were related to us by Ms Akiko. Our close examination of these photographs also showed no unusual foreign material(s) and/or object(s) found on the ground in the immediate area of the road where the Insured Vehicle was positioned. See photos 12 – 16 below.



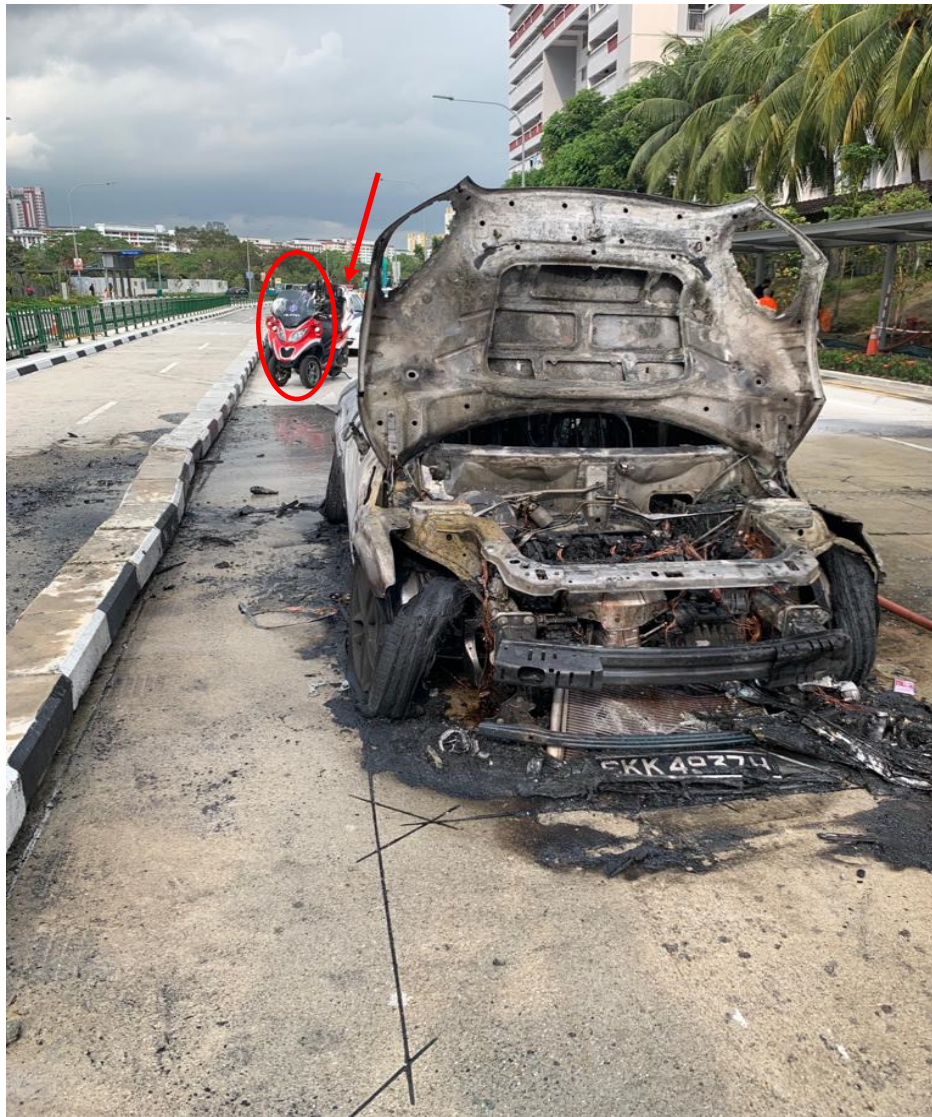
**Photo 12** shows the Insured Vehicle on fire before the arrival of the SCDF. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Ms Akiko, which is the fire had started from the engine compartment of the Insured Vehicle (arrowed).





**Photo 13** shows firefighters putting out the fire to the Insured Vehicle.

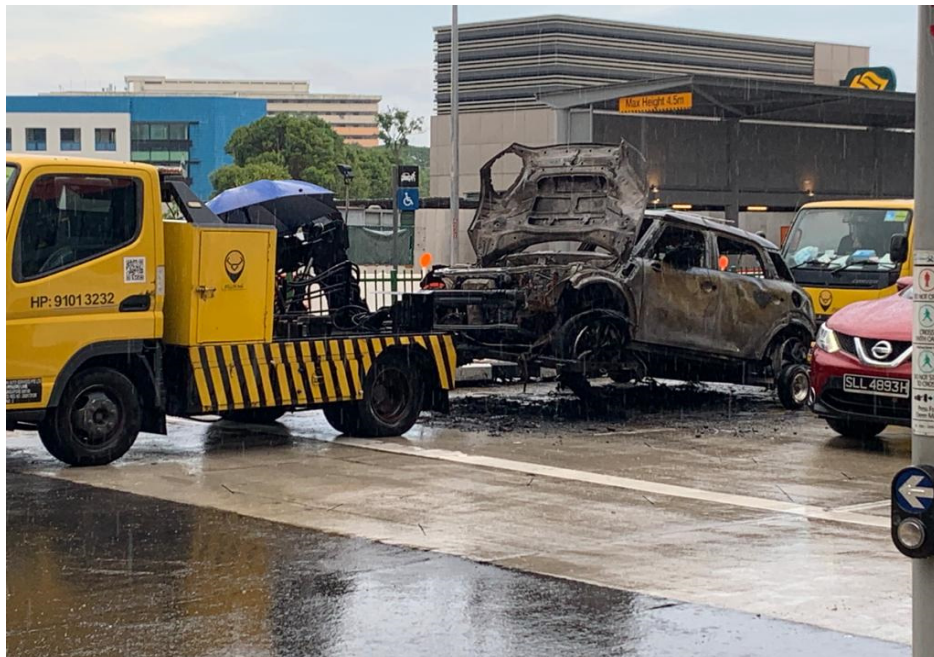




**Photo 14** shows the Insured Vehicle post- incident. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Ms Akiko, which is the police (arrowed) and SCDF (circled) were present at the incident location.



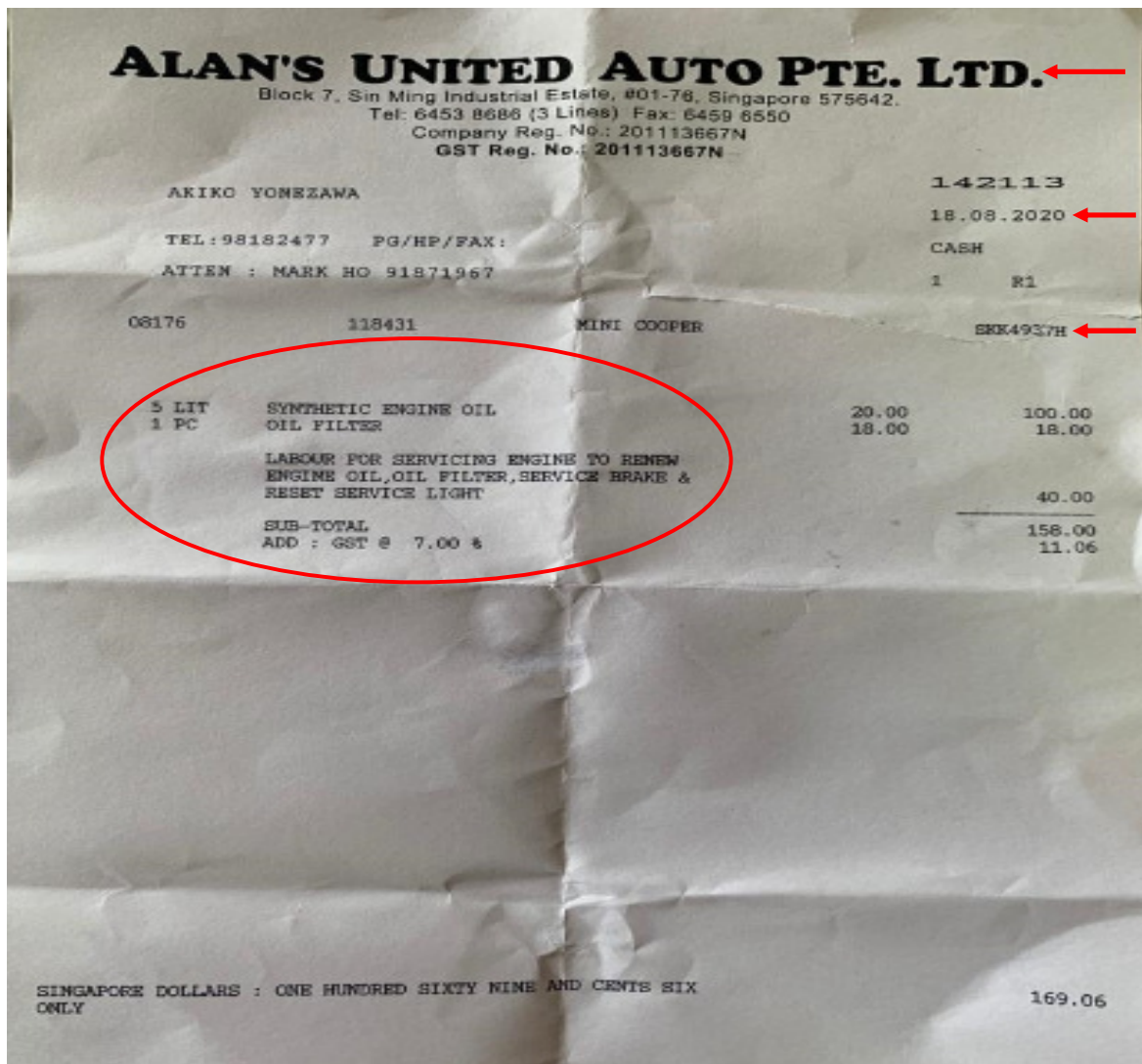
**Photo 15** shows the Insured Vehicle after the fire was put out. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Ms Akiko, which is the incident had occurred along Sing Ming Avenue (arrowed) while she was waiting to turn right into Sin Ming Walk.



**Photo 16** shows the Insured Vehicle being prepped to be towed to BH post-incident.



17. During the course of our investigations, we were also able to obtain from Mr Ho, a document relating to the last servicing of the Insured Vehicle at Alan's United Auto Pte. Ltd. on 18 August 2020. The servicing package included changing of engine oil and oil filter. The brakes were serviced and the service light was also reset. Refer to Invoice 1 below.



**ALAN'S UNITED AUTO PTE. LTD.** (arrowed)

Block 7, Sin Ming Industrial Estate, #01-78, Singapore 575642.  
Tel: 6453 8688 (3 Lines) Fax: 6459 8550  
Company Reg. No.: 201113667N  
GST Reg. No.: 201113667N

AKIKO YONEZAWA  
TEL: 98182477 PG/HP/FAX:  
ATTEN : MARK HO 91871967

142113  
18.08.2020 (arrowed)  
CASH  
1 R1

08176 118431 MINI COOPER SKK4937H (arrowed)

5 LIT	SYNTHETIC ENGINE OIL	20.00	100.00
1 PC	OIL FILTER	18.00	18.00
LABOUR FOR SERVICING ENGINE TO RENEW ENGINE OIL, OIL FILTER, SERVICE BRAKE & RESET SERVICE LIGHT (circled)			40.00
SUB-TOTAL			158.00
ADD : GST @ 7.00 %			11.06
			169.06


SINGAPORE DOLLARS : ONE HUNDRED SIXTY NINE AND CENTS SIX ONLY

**Invoice 1** shows the last servicing package done on the Insured Vehicle on 18 August 2020 at Alan's United Auto Pte. Ltd. (arrowed) which included changing of engine oil and oil filter. The brakes were serviced and the service light was also reset (circled).

18. Based on the vehicle service record invoice provided, we are of the opinion that it is unlikely that the fire could have been caused by poor maintenance of the Insured Vehicle.



19. Given the circumstances of the incident as reported, the possibility of the cause of fire to the Insured Vehicle being due to engine overheating would seem unlikely as Ms Akiko had mentioned to us there were no indications of abnormally high temperatures on the Insured Vehicle.
20. The possibility of the fire being due to external factors (foreign material(s) stuck on hot surfaces, arson and sabotage amongst others) would also seem unlikely given that our examination of the available incident scene photographs did not reveal any unusual material(s)/object(s) found on the ground near where the Insured Vehicle was positioned. The location of where the Insured Vehicle was positioned was also observed to be not at a secluded location.
21. The possibility of the fire being due to electrical in nature would then seem more likely given that engine overheating and external factors would both seem unlikely. The fire being due to electrical in nature is also supported by the condition of the wirings that were found in the engine compartment of the Insured Vehicle, which was earlier discussed in paragraph 8 above.
22. Our checks with both local and international bodies and associations had revealed that at the time of writing this report, there is no manufacturer recall of electrical nature to similar make and model vehicle as the Insured Vehicle that may possibly be related to this incident. See search result from LTA below.



### Vehicle Recall Details

ONLY INFORMATION ON VEHICLE RECALLS SUBMITTED FROM 9 APRIL 2007 IS AVAILABLE

Owner ID Type <b>Singapore NRIC</b>	Owner ID <b>862H</b>
Vehicle No. <b>SKK4937H</b>	Make/Model <b>MINI/ COOPER COUNTRYMAN 1.6 AT ABS 5DR 2WD</b>
Engine No.: <b>A870J280N16B16A</b>	Chassis No.: <b>WMWZB32010WL93954</b>
Recall Details: <b>No Recall Detail records</b>	

**Conclusion**

23. Having investigated and technically analysed the damages of burnt nature to the Insured Vehicle, we are of the view that the cause of fire to the Insured Vehicle was of electrical in nature. For this particular case, the fire had originated along the wirings inside the engine compartment, somewhere around the rear portion of the engine compartment. The wirings were original factory fitted wirings of the Insured Vehicle.
24. We did not find any evidence which had suggested that the cause of fire to the Insured Vehicle was due to poor maintenance and/or recurring electrical problem.
25. There were no modification(s) or additional electronic and/or electrical component(s) fitted on the Insured Vehicle at the time of our inspection of the Insured Vehicle.
26. Our investigations had also revealed that at the time of writing this report, there is no manufacturer recall of electrical nature to similar make and model vehicle as the Insured Vehicle that may possibly be related to this incident.
27. SCDF was activated to attend to the fire incident and a fire report pertaining to their findings will likely be forthcoming. We have applied for this fire report and will forward a copy of the report once it is made available to us.

**Muhd Nazril***Senior Technical Investigator***Ang Bryan Tani***AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA**Senior Technical Investigator**Technical Investigation & Reconstructionist (SAE-A)*

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