

Your Ref: S9M01Y5H  
Our Ref : CS/ASM19017062/P

10<sup>th</sup> October 2019

**M/s AXA Insurance Pte. Ltd.**

8 Shenton Way #24-01  
AXA TOWER  
Singapore 068811  
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE INSURED VEHICLE XE 4759H ON 22<sup>th</sup> AUGUST 2019**

1. We refer to your letter dated 27<sup>th</sup> September 2019 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle XE 4759H (herein referred to as “**Insured Vehicle**”) are set out below.

**Inspection of the Insured Vehicle**

3. The Insured Vehicle was physically inspected on 7<sup>th</sup> October 2019 at the premises of AAK Logistics Services Pte. Ltd (herein referred to as “**AAK Logistics**”) located at 4 Penjuru Close,
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: XE 4759H
Make / Model	: MITSUBISHI FUSO FP70HDR2VDEA
Chassis No	: FP70HDA00001
Year of Registration	: 24 APRIL 2019
Mileage	: N.A (Instrument cluster affected)

5. The Insured Vehicle was noted to have sustained heat and smoke damage that was confined to its cabin portion. As a result of the fire. The damage was observed to be most severe at its cabin top and interior portion. The rear portion of the Insured Vehicle was relatively unaffected by the fire. See photos 1 – 10 below.



**Photo 1** shows the front view of the Insured Vehicle at the time of our inspection. The heat and smoke damage to the Insured Vehicle was confined to its cabin portion. The rear portion of the Insured Vehicle was relatively unaffected by the fire.



**Photo 2** shows the close up view of the Insured Vehicle's cabin windscreen at the time of our inspection. The front windscreen of the Insured Vehicle had sustained heat and smoke damaged as a result of the fire (circled).



**Photo 3** shows the right side view of the Insured Vehicle at the time of our inspection. The exterior body of the Insured Vehicle was affected by the heat. The body and door panels had sustained heat and smoke damage as a result of the fire (circled).



**Photo 4** shows the close up view of the right side of the Insured Vehicle at the time of our inspection. The body panel had sustained heat damage and melted as a result of the fire (circled).





**Photo 5** shows the general view of the right side of the Insured Vehicle at the time of our inspection. The door panel, air filter box and side mirror had sustained fire damage, smoke damage and melted as a result of the fire (circled).



**Photo 6** shows the close up view of the right side of the Insured Vehicle at the time of our inspection. The air filter box had sustained fire damage, smoke damage and melted as a result of the fire (circled).



**Photo 7** shows the close up view of the right side of the Insured Vehicle at the time of our inspection. The air filter box had sustained fire damage, smoke damage, melted from the top and fallen downwards as a result of the fire (circled).



**Photo 8** shows the left side view of the Insured Vehicle at the time of our inspection. The exterior body of the Insured Vehicle was affected by the fire. The body, door panels and side mirror had sustained fire and smoke damage as a result of the fire (circled).



**Photo 9** shows the close up view of the left side of the Insured Vehicle at the time of our inspection. The exterior body of the Insured Vehicle was affected by the fire. The body, door panels and windscreen had sustained fire and smoke damage as a result of the fire (circled).



**Photo 10** shows the rear portion of the Insured at the time of our inspection. The rear portion of the Insured Vehicle was unaffected by 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. Based on the circumstances for this particular case, the fire appears to have originated from the exterior of the Insured Vehicle, somewhere around the front cabin portion. This can be determined basing on the area where the extent of fire damage was most severe, the circumstances of the fires' origin at the material time of incident and also the high heat intensity burn marks (whitish burn marks) that were found on the exterior surface of its cabin top.
8. These whitish burn marks are a result of exposure to prolong heat intensity. Rust would normally start to develop around these areas soon after a fire as the prolonged exposure to high heat intensity usually causes the bare steel/metal material of the body parts to be exposed to natural environmental condition. The rust that had developed on the cabin top, in the immediate vicinity of where these whitish burn marks were found, would also support our findings of where the fire had affected the Insured Vehicle. See photo 11-16 below.



**Photo 11** shows the fire damage at the exterior portion of the cabin top of the Insured Vehicle. The high heat intensity burn marks (whitish burn marks) found on the exterior surface of its cabin top as well as rust that had also developed on (circled) this indicates that the fire to the Insured Vehicle had originated from the exterior of the Insured Vehicle.



**Photo 12** shows the general view of the interior compartment of the Insured Vehicle at the time of our inspection. Its interior compartment had suffered heat, smoke damage and melted as a result of the fire.



**Photo 13** shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. Its roof lining material had suffered heat, smoke damage and fallen off as a result of the fire.





**Photo 14** shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. Its driver's chair material had suffered heat, smoke damage and melted down as a result of the fire.



**Photo 15** shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. Its driver's steering wheel and dashboard material had suffered heat, smoke damage and melted down as a result of the fire.



**Photo 16** shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. Its cabin instrument panels and dashboard components had suffered heat, smoke damage and melted down as a result of the fire.

### Site Inspection

9. Since the physical damage and burn pattern of the Insured Vehicle had indicated that the fire had originated from the exterior of the Insured Vehicle, we had visited the reported incident location, which was at the Rubbish Collection Centre, Near Block 512, Chai Chee Lane Singapore 469028
10. From the Singapore Accident Statement which was made by Mr Mohamed Fudin Bin Jantan (herein referred to as **"Mr Fudin"**), we note that the fire had started from the rubbish collection centre and spread to the Insured Vehicle that was parked stationary in front of the rubbish collection centre. Mr Fudin was first alerted of the fire when he received a call from his friend informing him that the Insured Vehicle was on fire.
11. We managed to speak to Mr Fudin and we were able to gather information pertaining to the incident. The Insured Vehicle belongs to his company by the name of AAK logistics and Mr Fudin uses the Insured Vehicle for delivery purposes. He is the only driver of the Insured Vehicle. According to Mr Fudin, on the day of the incident at 1900 hours he parked the Insured Vehicle stationary in front of the rubbish collection centre at Block 512, Chai Chee Lane and proceeded home at Block 54 Chai Chee Street which was just across.

12. At about 2340 hours Mr Fudin received a phone call from his friend Mr Jai. Mr Jai then informed Mr Fudin that his friend was driving pass the area at the rubbish collection centre and saw the companies name on the Insured Vehicle and recognized that it belongs to Mr Jai's friend and subsequently Mr Jai contacted Mr Fudin and inform him that the rubbish collection centre was on fire and the fire had spread onto the Insured Vehicle where he had parked. Mr Fudin opened his house door, looked across and saw SPF & SCDF personnel attending to the fire then he immediately rushed down to the scene. It took close to 3 hours to put out the fire due to all the combustible materials in the rubbish collection centre.
13. After the fire was put out Mr Fudin had his statement taken by the SCDF and SPF officers. Told him that the Insured Vehicle could not be towed off the scene as the area had be cordon off and pending for investigation purpose. 1 week after the investigation process, the Insured Vehicle company AAK Logistics arranged a tow truck to it back to AAK Logistics office at 4 Penjuru Close, Singapore 608574. Mr Fudin did not take any pictures post- incident as he was all distracted by the fire at the scene.
14. Mr Fudin mentioned that he had not experienced any mechanical or electrical/electronic problems with the Insured Vehicle till the day of the incident.
15. With regard to the history of the Insured Vehicle, we were able to gather from Mr Fudin that the Insured Vehicle was purchased new in April 2019 this was 6 months prior to the fire incident. To the best of his recollection, there has not been any major mechanical problem and/or electrical problem with the Insured Vehicle.
16. Pertaining to the maintenance aspect, the Insured Vehicle was newly bought 6 months prior to the fire incident and hasn't gone for any periodic servicing yet.
17. To the best of his recollection, there has not been any major mechanical problem and/or electrical problem with the Insured Vehicle. He did not do any modification(s) and/or additionally fitted any electrical or electronic component(s) to the Insured Vehicle.
18. We did not find any CCTV camera(s) located in the vicinity of the Rubbish Collection Centre at Block 512 Chai Chee Lane, Singapore 469028 where the incident had occurred.



19. At the time of our visit, we observed burn marks and/or burnt residual remains to the structure of the rubbish collection centre as well as the ground where the Insured Vehicle was positioned when the fire occurred. We also observed that the roof panels and roof linings were affected by the fire. We had also found the charred and melted residual remains of the roof linings and air filter box on the ground. We did not observe any other damaged or newly replaced property at the time of our visit to the incident location as it was still cordon off and no repair works was conducted yet. See Photo 17 - 23



**Photo 17** shows the general view of the location where the fire incident had occurred. The Insured Vehicle was positioned at in front of the Rubbish Collection Centre at Chai Chee Lane Block 512. From our observations, there was no CCTV camera(s) located in the vicinity of the viaduct.



**Photo 18** shows the general view of the location where the fire incident had occurred. The Insured Vehicle was positioned head in at the front pouch of the Rubbish Collection Centre at Chai Chee Lane Block 512. From our observations, the roof panels, roof linings and surroundings were affected by the fire.



**Photo 19** shows the close up view of the inside of the Rubbish Collection Centre at Chai Chee Lane Block 512. From our observations, the doors, walls, roof and surroundings combustible materials were affected by the fire.



**Photo 20** shows the fire damage on the roof panels. From our observations, the high heat intensity burn marks (whitish burn marks) found on the exterior surface of its roofs panels (circled) and rust that had developed on the metal support brackets of the roof panels (yellow arrow) on the structure of the rubbish collection centre.



**Photo 21** shows the fire damage on the roof linings. From our observations, the roof linings materials (arrowed) had caught fire and fall off the roof structure and onto the Insured Vehicle resulting the heat and smoke damage on the cabin top, resulting in high heat intensity burn marks (whitish burn marks) found on the exterior surface of its cabin top as well as rust.





**Photo 22** shows the traces of residue materials of the roof linings and melted parts from the Insured Vehicle. The roof linings materials (red arrow) and parts of the Insured Vehicle (yellow arrow) had fallen off the roof onto the ground due to the intensity of the fire.



**Photo 23** shows the general view of the location where the fire incident had occurred. The Insured Vehicle was positioned head in at the front pouch of the Rubbish Collection Centre at Chai Chee Lane Block 512. From our observations, we see a melted leftover black residue of plastic on the ground which was the melted air filter box from the cabin top of the Insured Vehicle. (circled) Due to the burning roof lining landed on the air filter box and melting it onto the ground.

20. Our checks with both local and international bodies and associations had also revealed that at the time of writing this report, there is no manufacturer recall of similar make and model vehicle as the Insured Vehicle that may possibly be related to fire being originated from the exterior of the Insured Vehicle. See search result from LTA below.

Enquiry on Vehicle Recall - Vehicle Specific

\* ONLY INFORMATION ON VEHICLE RECALLS SUBMITTED FROM 1 APRIL 2007 IS AVAILABLE

Vehicle Owner Particulars	
Owner ID Type:	Company
Owner ID:	767M

Vehicle Details	
Vehicle Registration number:	XE4759H
Make:	MITSUBISHI
Vehicle Model:	FUSO F970HQR2VDEA
Engine No.:	4769L2C0400700
Chassis No.:	FP70H-D400001

Recall Details	
No Recall Detail records	

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## Conclusion

21. Having investigated and technically analysed the damages of burnt nature to the Insured Vehicle, we are of the view that the cause of damage to the Insured Vehicle was likely due to external factor of the fire from rubbish collection centre where the Insured Vehicle was parked stationary in front of.
22. The cause of fire being due to external factors also supported by our visit to the incident location where we had found the remnants of the roof lining materials at the area where the Insured Vehicle had stopped and the fire report produced from SCDF. See report below.



SINGAPORE CIVIL DEFENCE FORCE

## FIRE REPORT

<b>1. GENERAL INFORMATION</b>			
INCIDENT NO. : /20190822/0938		LOCATION OF FIRE:	
FIRE REPORTED ON : 22 August 2019		Rubbish Collection Centre	
TIME OF CALL : 23:24:49 hrs		Near Block 512, Chai Chee Lane	
STATION		Singapore 469026	
COVERAGE : Changi Fire Station			
<b>2. INCIDENT INFORMATION</b>			
FIRE INVOLVED: Contents of a rubbish collection centre.			
METHOD OF EXTINGUISHMENT: By SCDF crew using three 38mm hose line jets from a fire appliance.			
PROBABLE CAUSE OF FIRE: Accidental (Embers From Smouldering Materials)			
<p>DAMAGE SUSTAINED: As a result of the fire, the contents of the rubbish collection centre were damaged. The floor, walls, ceiling, doors, electrical wirings and fixtures of the rubbish collection centre were also damaged. The contents of other rooms in the rubbish collection centre sustained heat, smoke and water damage.</p> <p>A prime mover (XE4759H) outside the rubbish collection centre sustained varying degrees of heat, smoke and water damage.</p>			
<b>3. FATALITY/INJURY INFORMATION</b>			
NAME	PIN/FIN	ADDRESS	DEAD/INJURIES SUSTAINED
NIL	NIL	NIL	NIL
REPORT CERTIFIED TRUE AND CORRECT BY:			
<p>HUANG WEI KANG for COMMISSIONER SINGAPORE CIVIL DEFENCE FORCE</p>			

*This is a computer generated Fire Report. No signature is required.*



23. There was 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.

24. At the time of writing this report, there was also no manufacturer recall of similar make and model vehicle as the Insured Vehicle that could possibly be related to this particular incident.

**Sherwin Beh**

*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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