**Use Case CF\_ Parking brake malfunction.docx**

1. Brake assist:

"According to 5.6: The use case does not address provisions for the periodic technical inspection of electronic brake assist systems.\n"

**Use Case CF\_ Engaging the Parking Brake.docx**

1. Brake assist:

"According to 9.2: The use case does not involve driving the vehicle in a straight line at a test speed, or simulating emergency braking to activate BAS and fully cycle ABS, as required for Test 2.\nAccording to 10.1.1: The requirement specifies that any modifications deemed unlikely to have adverse effects and still meeting foot control requirements are revisions, and the Type Approval Authority must issue revised information documents noting the change and re-issue date. The use case does not reference any modifications or their documentation by the Type Approval Authority, which is essential\nAccording to 5.1: Vehicles equipped with a brake assist system shall also be equipped with ABS in accordance with technical requirements of UN Regulation 13-H, but this use case does not mention the existence of ABS or its compliance with UN Regulation 13-H.\nAccording to 7.4.3: The use case does not specify ensuring a sufficient energy level at the beginning of the test for vehicles equipped with a brake system assisted by an energy source.\n"  
  
**Use Case CF\_ Using the Power Meter.docx**

1. Braking:

"According to 5.1.4.2.1: The requirement specifies that warning signals indicating operational status must be visually observable following a power-on during a periodic technical inspection. The described use case focuses on the use of a power meter for monitoring regenerative braking and power usage, which does not specifically indicate how operational status warning signals are confirmed during a technical inspection.\nAccording to 5.1.2: The use case \"Using the Power Meter\" does not describe any specific functions or capabilities of the actual braking equipment itself, violating the requirement that specifically relates to the functions of braking equipment.\nAccording to 5.1.1.4: The use case does not address compliance with UN Regulation No. 10 regarding the impact of magnetic or electrical fields on braking equipment.\nAccording to 5.1.2.2: The use case does not mention if the secondary braking system can be activated from the driving seat without removing the driver's hands from the steering control.\nAccording to 5.1.3: The use case does not specify whether the regenerative braking system, which uses the braking system as the means of achieving a higher level objective, is deactivated during type approval testing of the braking system, which would be a violation of the requirement if true.\n"

**Use Case CF\_ Configure the level of recuperation.docx**

1. Braking:

"According to 5.1.2.2.1: The use case does not describe the secondary braking system that can halt the vehicle within a reasonable distance or allow for graduated braking action when there is a failure of the service braking system.\nAccording to 5.1.3: The use case describes a system allowing the driver to switch off regenerative braking, which violates the requirement that systems using the braking system should not be deactivated during type approval testing of the braking system.\nAccording to 5.1.2.3.1: The use case does not address the requirement that the parking braking system must hold the vehicle stationary on a gradient using a purely mechanical device in the absence of the driver.\nAccording to 2.9: The use case allows switching off regenerative braking completely, which might violate the requirement for \"progressive and graduated braking.\"\nAccording to 5.1.2.1.1.1: The use case violates the requirement because it allows the driver to switch off regenerative braking entirely, which might prevent the driver from controlling the movement of the vehicle and halting it safely and effectively under all conditions.\n"  
  
**Use Case CF\_ Emergency Braking Procedure.docx**

1. Braking:

"According to 5.1.2.3: The use case does not specify that the parking braking system can hold the vehicle stationary on a gradient using a purely mechanical device, nor does it state that this braking action can be achieved from the driver's seat.\nAccording to 5.1.2.2: The secondary braking system must be activated by the service brake control from the driver's seat without removing hands from the steering control; using a Park button violates this by requiring the driver to press a separate button, potentially removing hands from the steering.\nAccording to 5.1.3: The use case does not specify that the system cannot be deactivated during type approval testing of the braking system, which violates the requirement.\nAccording to 5.1.2.1: The use case violates the requirement because it requires the driver to press and hold a Park button, potentially removing their hands from the steering control to achieve the braking action.\nAccording to 2.9.: \"Use Case I-6422 describes emergency braking by 'pressing and holding the Park button' which does not specify 'progressive and graduated braking' as per the requirement.\"\n"  
  
**Use Case CF\_ Control turn lights after forcefully braking or AEB engaged.docx**

1. Brake assist:

"According to 9.2: The use case does not specify that the vehicle is driven in a straight line at the test speed specified in paragraph 7.4 as required for BAS activation testing.\nAccording to 8.2.1: There is no mention of a significant increase in the brake line pressure to brake pedal force ratio or vehicle deceleration to brake pedal force ratio after an emergency braking condition is detected.\nAccording to 10.1.1: The use case description fails to address whether the Type Approval Authority has issued revised pages of the information documents, with each page marked to show the nature of the modification and the date of re-issue, as required for a modification classified as a \"revision.\"\nAccording to 2.6: The use case description does not mention a mechanism to deduce an emergency braking event from a characteristic of the driver's brake demand as required by the definition of the Brake Assist System (BAS).\nAccording to 5.6: The use case does not mention any provisions for the periodic technical inspection of electronic brake assist systems, which violates the requirement.\n"  
  
**Use Case CF\_ Creep.docx**

1. Braking:

"According to 5.1.2.3: The use case violates the requirement as it does not ensure the vehicle can remain stationary on a gradient without driver input, as it describes the vehicle moving forward due to the Creep function when the brake pedal is released.\nAccording to 2.9: The use case \"Creep\" describes a scenario where the vehicle begins to move forward automatically without the application of the brakes, which does not demonstrate \"progressive and graduated braking\" during actuation of the brakes, thus violating the requirement.\nAccording to 5.1.3: The provided use case does not specify if the Creep function system, which uses the braking system, will be subject to Annex 8 requirements during type approval testing, as it should not be deactivated during such testing.\nAccording to 5.1.2.2: The use case does not mention a mechanism for the driver to halt the vehicle using the secondary braking system without removing hands from the steering control, in the event of a failure of the service braking system.\nAccording to 5.1.2.1: The use case violates the requirement as the driver is required to remove their foot from the brake pedal to engage the Creep function, which implies that control of the vehicle's speed and halt ability is not achievable solely from the driver\u2019s seat without removing hands from the steering control.\n"

**Use Case CF\_ Hill descent control(HDC).docx**

1. Braking:

"According to 5.1.2.2: The use case does not describe a secondary braking system that allows the driver to halt the vehicle from the driving seat without removing hands from the steering control, in the event of a service brake failure, nor does it mention the ability to gradually apply this secondary braking action.\nAccording to 5.1.3: The use case violates the requirement because it allows the HDC function, which directly affects the braking system, to be deactivated by the driver, potentially during type approval testing of the braking system.\nAccording to 5.1.2.1.1: The use case does not specify that the driver can achieve the braking action from the driving seat without removing hands from the steering control.\nAccording to 5.1.2.3: The use case does not mention a purely mechanical device holding the vehicle stationary in the absence of the driver, which violates the requirement for a parking braking system.\nAccording to 2.9.: The requirement for \"progressive and graduated braking\" suggests that braking should occur smoothly and progressively within the normal operating range and during actuation of the brakes. The use case does not mention the manner or responsiveness of the braking system, and without assurance of progressive and graduated braking meeting the specified requirement during H\n"

**Use Case CF\_ Engaging Auto Vehicle Hold (AVH).docx**

1. Braking:  
"According to 5.1.2.3: The use case violates the requirement because the vehicle hold feature is implemented using the Auto Vehicle Hold (AVH), which relies on electronic activation rather than a purely mechanical device to keep the vehicle stationary.\nAccording to 5.1.3: The use case does not mention whether the AVH system, which affects the braking function, is deactivated during type approval testing of the braking system, potentially violating the requirement that such systems shall not be deactivated during testing.\nAccording to 5.1.2.2: The use case does not address the ability to halt the vehicle within a reasonable distance in the event of a service braking system failure using a secondary braking system from the driver's seat without removing hands from the steering.\nAccording to 5.1.2.1: The use case violates the requirement because it allows the vehicle to remain stationary ('to halt it safely, speedily, and effectively') without active input from the driver, which means the driver is not controlling the stopping action from their driving seat with their hands on the steering control.\nAccording to 1.2.3: The use case does not mention the approval of the Electronic Stability Control (ESC) and Brake Assist System(s) (BAS) of the vehicle.\n"

**Use Case CF\_ Brake System Operation.docx**

1. Braking:

"According to 5.1.2.2: The use case does not specify that the braking action of the secondary braking system can be graduated or that the driver can activate it without removing hands from the steering control.\nAccording to 5.1.2.1: The use case violates the requirement because it does not specify that the driver can achieve braking action without removing hands from the steering control.\nAccording to 5.1.3: The use case does not mention whether the systems or functions are deactivated during type approval testing of the braking system, which may violate the requirement that they shall not be deactivated.\nAccording to 5.1.2.3: The use case does not describe a parking braking system holding the vehicle stationary on a gradient without the driver, nor that the locking mechanism is purely mechanical.\nAccording to 2.9.: The use case violates the requirement as it does not describe \"progressive and graduated braking\" within its normal operating range but only mentions maintaining steady pressure, increasing pressure, and associated feedback without specifying progressive modulation.\n"

**Use Case CF\_ Anti-Lock Braking System (ABS) Functionality.docx**

1. Braking:

"According to 5.1.2.2: The use case does not describe a secondary braking system that can be operated from the driver's seat without removing hands from the steering control in the event of a service braking system failure.\nAccording to 5.1.2.1.1: The use case violates the requirement as it does not confirm that the driver can brake without removing hands from the steering control.\nAccording to 1.2.3: The use case does not include any mention of the approval of the Electronic Stability Control (ESC) and Brake Assist System(s) (BAS), which is required.\n"

**Use Case CF\_ Disengaging Auto Vehicle Hold.docx**

1. Braking:  
  
"According to 5.1.2.3: The use case violates the requirement as it allows the vehicle to be automatically shuffled to Park after AVH is disengaged instead of relying on a purely mechanical device to hold the vehicle stationary in the absence of the driver.\nAccording to 5.1.3: The use case does not mention whether systems using the braking system as a means to achieve a higher-level objective have a direct effect on the braking system and whether they are deactivated during type approval testing, potentially violating Annex 8 requirements.\nAccording to 5.1.2.2: The use case does not describe any mechanism for the secondary braking system to be operated from the driver's seat without removing hands from the steering control in the event of a service braking system failure.\nAccording to 1.2.3: The use case does not mention the approval of the Electronic Stability Control (ESC) and Brake Assist System(s) (BAS) of the vehicle.\nAccording to 5.1.2.1.1: The requirement is violated because the use case does not specify that the driver can control the braking without removing their hands from the steering control.\n"

**Use Case CF\_ Hill Hold.docx**

1. Braking:

"According to 5.1.2.3: The use case violates the requirement as it specifies that the Hill Hold system relies on a temporary holding action (2-3 seconds) which is not purely mechanical and thus does not ensure the vehicle remains stationary in the absence of the driver beyond this brief duration.\nAccording to 5.1.2.2: The use case does not specify that the secondary braking system can be activated by the service brake control or that it can be activated from the driver's seat without removing hands from the steering control, which may violate the requirement regarding driver operability in case of a service braking system failure.\nAccording to 5.1.2.1.1: The use case mentions the driver releasing the brake pedal to start uphill or downhill, which implies the driver cannot graduate the braking action or control the movement of the vehicle from the driving seat, potentially violating the requirement that the driver should be able to control the braking action without removing hands from the steering control.\nAccording to 5.1.3: The use case for \"Hill Hold\" does not specify whether the system, which uses the braking system to achieve the higher level objective of preventing rollback on a gradient, remains active during type approval testing of the braking system, potentially violating the requirement that such systems not be deactivated during testing.\nAccording to 1.2.3: The use case does not mention the approval of the Electronic Stability Control (ESC) and Brake Assist System(s) (BAS), which violates the requirement for their approval.\n"  
  
**Use Case CF\_ Setting the mode of wipers.docx**

1. Wipe and wash:

"According to 4.1.4: The use case does not mention ensuring that all accumulator batteries are fully charged, the internal combustion engine speed limits if applicable, the ability for the windscreen wiper system to operate with the engine stopped, headlights being on with lower beams, and systems operating with maximum electricity consumption, which may violate the requirement\nAccording to 4.1.7: The use case does not describe retaining the wiper lever in the middle of the wiping cycle for 15 seconds with the wiper control in the position corresponding to the highest rate.\nAccording to 2.12: The use case does not specify that the windscreen washer system supplies liquid without leaks or disconnections during operation, potentially violating the requirement.\nAccording to 3.2.1: The use case violates the requirement because it does not specify that the windscreen washer system's working state is linked to the activation of the master switch on the vehicle.\nAccording to 4.1.13: The use case does not specify testing the wipers after the vehicle is held for at least 4 hours at minus (18 \u00b1 3) \u00b0C, as required.\n"

**Use Case CF\_ Washer spray usage\_ Continuous Washer Spray.docx**

1. Wipe and wash:

"According to 3.2.1: The use case violates the requirement as it does not specify that the windscreen washer system's working state is linked to the activation of the master switch on the vehicle.\nAccording to 3.2.3: The use case does not mention ensuring that there are no traces of leaks when the washer fluid is sprayed, which violates the requirement.\nAccording to 3.1.9: The system description does not indicate that it can withstand forced blocking for 15 seconds, nor does it specify recovery without activating controls other than the wiper control.\n"

**Use Case CF\_ rain - light sensor malfunction.docx**

1. Wipe and wash:

"According to 4.1.4: The requirement specifies that headlights should be with lower beams on, but the use case indicates that the auto low beam headlamp turns off if the light sensor malfunctions, which violates this condition.\nAccording to 3.2.1: The provided use case does not mention the windscreen washer system being linked to the activation of the master switch on the vehicle, as required.\nAccording to 2.8: The use case fails to mention the operation or status of the windscreen washer system when the automatic wiper function is disabled due to a rain sensor malfunction.\n"

**Use Case CF\_ Washer rear camera.docx**

1. Wipe and wash:

"According to 3.2.1: The use case violates the requirement by not mentioning a linkage between the working state of the rear camera washer system and the activation of the master switch on the vehicle.\nAccording to 2.12: The use case describes a rear camera washer system, not a windscreen washer system, so it doesn't address the requirement of supplying liquid to the windscreen area without leaks or disconnections.\nAccording to 4.2: The use case does not address the windscreen washer system, which is the specified requirement.\n"

**Use Case CF\_ Display low wash fluid level warning.docx**

1. Wipe and wash:

"According to 3.2.1: The use case does not mention linking the windscreen washer system's working state to the activation of the master switch on the vehicle.\n"