

# **BP** Practice

# **Driving Safety in Upstream**

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# **Operating Management System (OMS) – Sub Elements and Group Essentials**

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# Foreword

This is the fifth issue of the 100401 BP Practice Driving Safety in Upstream.

The following changes to the fourth issue have been made:

- Setting a new requirement for vehicles which are owned, leased or contracted by Upstream Entities to be equipped with a high visibility reflective safety vest.
- Setting a new requirement for Upstream Entities to verify that an appropriate Emergency Response Plan (ERP) is in place for Higher Risk Driving Activities.

The above changes codify the lessons learned from the incident investigation of the July 2018 BP Downstream Lubricants Contractor driver fatality Severe Vehicle Accident (SVA) and Major Incident Announcement (MIA) which occurred in Louisiana, USA.

• Setting a new requirement for vehicles in scope used to undertake Higher Risk Driving Activities which are owned, leased or contracted by Upstream Entities to be installed with a vehicle camera system before 31 December 2021.

Upstream Entities are required to be conformant with the new requirements described above before 31 December 2019, with the exception of the installation of a vehicle camera system for the vehicles in scope which is required before 31 December 2021.

Note: the conformance date for existing requirements as per the previous issue of the Practice remains the same.

Clarifying that:

- It is the intent for drivers to inspect the area around the vehicle to verify the vehicle is free from people and obstacles, not to check the vehicle itself (e.g. 360 walk around).
- Vehicle tyres to be appropriate for the speed and load.
- Light Vehicles which are owned, leased or contracted by Upstream Entities to be installed with Electronic Stability Control (ESC) and side (curtain) airbags for driver and front seat passenger before 31 December 2020.
- Emergency Response Vehicles are exempted from the required safety features.
- Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), are exempted from In Vehicle Monitoring System (IVMS) and some of the required safety features.
- Heavy Vehicles which are manufactured before 01 January 2010 are exempted from the ABS requirement until 31 December 2023.
- The prohibition of using communication devices in section 5.2.5a includes use in hand-free mode.

*Blue italic text is used to denote commentary*. Commentary is provided to aid the reader in understanding the context for a requirement or recommendation.

# Introduction

This BP Practice codifies requirements for all Upstream driving (within its scope) and requires a risk based approach for higher risk driving as defined below. For Upstream OMS Entities (within its scope) it codifies OMS 3.7 Transportation (as it relates to road transport by vehicle and, excluding 3.7.7 Aviation and 3.7.8 cost effective Business Travel).

This BP Practice covers both BP employees and contractor personnel (see section 1), so implementation may involve amending existing contracts. See section 5.4 for the self-verification requirement in relation to contractors.

The term 'higher risk countries' is associated with driving safety. Within BP, this or similar terms are also used in relation to travel security and health, by teams such as Group Security and Group Health. This Practice is focused on driving safety and the term 'Higher Risk Driving Countries' is based on the specific driving safety risk within that country. A Journey Management Plan may cover different types of risks (e.g. travel security, health and driving safety within a country). For Upstream, having a Journey Management Plan (JMP) for the countries meeting the definition of Higher Risk Driving Countries, satisfies OMS 3.7.5.

This BP Practice is supported by the <u>100402 BP Guide Upstream Driving Safety Guidance</u>, which provides additional information and guidance for managing the risks of driving. The Guide includes a list of the Higher Risk Driving Countries as defined in this Practice.

# **1** Scope and Exclusions

This BP Practice sets driving safety requirements for the Upstream BP Workforce driving on Business Travel in any category of vehicle, excluding Mobile Equipment, where the kilometres driven are recordable for the purposes of BP's driving safety metrics (e.g. vehicle accident rate(s)). For anyone in Upstream, it replaces the RM-P 3.7-0002 and it supersedes the (retired) Group Recommended Practice for Driving Safety (GRP 3.7-0002).

This Practice does not apply to the Lower 48 business or to Operated by Others (OBO) businesses or to Non-Operated Joint Ventures (NOJVs) or to any BP staff seconded into such businesses or NOJVs.

Guidance for driving safety involving Mobile Equipment can be found in the BP Group Guide: <u>GG 3.7-0002 – Safe Movement of Mobile Equipment</u>.

# 2 References

### 2.1 Required References

The following documents are referenced in one or more requirements in this document. For dated references, only the version cited applies. For undated references, the latest version of the referenced document (including any amendments) applies.

None

### 2.2 Informative References

Unless stated otherwise in the content of this document, reference to the documents below is for information.

### ΒP

RCD 4.4-0001	Group HSE Definitions
100402	BP Guide Upstream Driving Safety Guidance
000030	BP Policy Risk Management
100150	BP Procedure Upstream Contractor Safety Management
GG 2.5-0002	Group Guide Working with Transport Contractors

# 3 Terms and Definitions

For the purpose of this BP Practice, the following terms and definitions apply:

The verbal forms used to express BP Requirements, Recommendations and Permissive Statements are:

- Shall designates a BP Requirement.
- Should designates a recommendation where conformance is not mandatory.
- May designates a Permissive Statement, an option that is neither mandatory nor specifically recommended.

# **BP** Contractor

Refer to RCD 4.4-0001 Group HSE Definitions.

### **BP** Operated Location

Refer to <u>RCD 4.4-0001</u> Group HSE Definitions.

### **BP Workforce**

Refer to <u>RCD 4.4-0001</u> Group HSE Definitions.

### **Business Travel**

Refer to <u>RCD 4.4-0001</u> <u>Group HSE Definitions</u> - note there are two definitions Business Travel: BP Contractor and Business Travel: BP Employee.

### Driver

A member of the BP Workforce driving a vehicle on Business Travel.

### Higher Mileage Driver

A driver, driving more than 5,000 miles / 8,000 kilometres per calendar year on Business Travel.

### Higher Risk Driving Activity

For the purpose of this BP Practice, Higher Risk Driving Activities are:

- a. An OMS risk register position of Blue C+ or Purple risk related to driving
- b. Driving a Multi Passenger Transport Vehicle to transport member(s) of the BP Workforce on Business Travel
- c. Driving a vehicle to transport dangerous goods (e.g. petroleum products) on public roads
- d. Driving a vehicle off-road: including on purpose-built ice roads, desert and unpaved roads and an unconventional vehicle such as an All-Terrain Vehicle (ATV) or snowmobile.

### Higher Risk Driving Country

A country with a road traffic death rate per 100,000 population of 13.0 or more, based on the World Health Organisation's (WHO) '<u>Global Status Report on Road Safety</u>', per the list provided in the Upstream Driving Safety Guide. Once a country's death rate is below 13.0 per 100,000 population for three consecutive reports, it will be removed from the list.

### Mobile Equipment

Refer to 'Vehicle' definition in RCD 4.4-0001 Group HSE Definitions.

### Multi Passenger Transport Vehicle (MPTV)

A Van, Minibus, Microbus, Bus or Coach which is owned, leased or contracted by an Upstream Entity (not including a personal vehicle or public transport vehicle (e.g. airport shuttle bus, taxi)). These vehicles can also meet the definition of a Light Vehicle or Heavy Vehicle depending on the vehicle gross weight.

## Upstream Entity

For the purposes of this BP Practice, the Upstream Entities in scope are:

- a. The operating, technical and business functions
- b. The Upstream organisational units (i.e. Engineering, S&OR, HSE Discipline and Joint Ventures (JVs))
- c. The Regional organisations which covers anyone in Region but not covered above
- d. The Upstream executive office which covers anyone not covered above

### Vehicle

Any means of motorised transport used on land. Vehicles are split into two sub-categories:

• Heavy Vehicle: Gross vehicle weight (unladen) 3.5 tonnes and heavier

*Typical examples include: Lorry, Truck and Trailer, Dump truck, Bus, Coach.* 

• Light Vehicle: Gross vehicle weight (unladen) less than 3.5 tonnes.

*Typical examples include: Car, SUV, 4x4, Pickup truck, Van.* 

# 4 Symbols and Abbreviations

For the purpose of this BP Practice, the following symbols and abbreviations apply:

ABL	Alternative Brake Lights
ABS	Anti-lock Braking System
ADC	Automatic Distance Control
AEB	Autonomous Emergency Braking
ATV	All-Terrain Vehicle
DSQ	Driving Safety Questionnaire
ERP	Emergency Response Plan
ESC	Electronic Stability Control
FCW	Forward Collision Warning
HSE	Health Safety Environment
IVMS	In Vehicle Monitoring System
JMP	Journey Management Plan
LDW	Lane Departure Warning
JV	Joint Venture
MPTV	Multi Passenger Transport Vehicle
MyTL	My Talent and Learning
NCAP	New Car Assessment Program
NOJV	Non-Operated Joint Ventures
OEM	Original Equipment Manufacturer
OMS	Operating Management System
RAP	Risk Action Plan
S&OR	Safety & Operational Risk
UN	United Nations
VDR	Vehicle Data Recorder
WHO	World Health Organisation

# 5 BP Requirements – Driving Safety in Upstream

# 5.1 Vehicle requirements

A vehicle shall not be driven unless it meets the requirements in this section 5.1.

### 5.1.1 Vehicle specifications

Vehicle to be equipped with the required safety features and maintained in safe working order.

- a. Light Vehicles shall be equipped with the required safety features set out in Annex A.
- b. Heavy Vehicles shall meet the recognised specifications for the country of operation and be equipped with the required safety features set out in Annex B.
- c. Multi Passenger Transport Vehicles (MPTV) shall be built, designed and constructed for the intended use to United Nations (UN) Vehicle Regulations or equivalent national standards for seat and seat belt anchorage, safety belts and restraints and rollover protection.

*MPTVs* which are converted from cargo duty to passenger duty are not designed and constructed for their intended use and cannot be used for passenger transport.

- d. Vehicles shall be maintained in safe working order (e.g. maintained in accordance with manufacturers' recommendations or an equivalent with up-to-date records held).
- e. Vehicles shall be used in accordance with the manufacturers' specifications and visually inspected for roadworthiness on a regular basis (e.g. tyres, lights and windscreen wash).
- f. Vehicles which are owned, leased or contracted by Upstream Entities shall be equipped with at least one high visibility reflective safety vest unless the driver is provided with Personal Protective Clothing (PPE) which features high visibility meeting ISO 20471, class 2.

The intent of having the availability of a safety vest in the vehicle is that this is used by the driver in case of a vehicle breakdown or emergency. Note, this safety vest might not be suitable in process environments where anti-static clothing is needed.

g. Vehicles in Higher Risk Driving Countries which are owned, leased or contracted by Upstream Entities shall be installed with an In Vehicle Monitoring System (IVMS) (Vehicle Data Recorder or vehicle camera) as set out in Annex C, Table C.1.

Note: Vehicles used for Higher Risk Driving Activities need to meet the more stringent requirement as set out in section 5.1.1h.

- h. Vehicles used for Higher Risk Driving Activities (all countries) which are owned, leased or contracted by Upstream Entities shall be installed with an In Vehicle Monitoring System (IVMS) and, before 31 December 2021, to be installed with a vehicle camera system where specified in Annex C, Table C.2.
- i. For vehicles installed with IVMS (including vehicle camera system), where applicable legal requirements including data privacy laws allow, this system shall be operational and used in support of improving driving safety behaviour and performance including providing regular feedback to the driver.

Emergency Response Vehicles are exempted from the requirements in section 5.1.1, however they are required to meet OMS Group Essentials. It is expected that these vehicles are built, designed, constructed and maintained for their intended use.

#### 5.1.2 Vehicle carrying passengers

The number of passengers shall not exceed manufacturer's specification and legal limits for the Vehicle.

#### 5.1.3 Vehicle loads

Loads shall be secure and not exceed manufacturer's specification and legal limits for the Vehicle.

Loading limits for Heavy Vehicle include the limits for axle loading and centre of gravity.

#### **5.1.4** Motorcycles shall not be used.

This goes beyond OMS 3.7.4 and the Golden Rules of Driving Safety which state that a documented risk assessment is to be completed before motorcycles are allowed. The Upstream Segment does not allow the use of motorcycles on Business Travel.

#### 5.2 Driver requirements

Drivers shall not drive a vehicle unless they meet the requirements in this section 5.2.

#### 5.2.1 Seatbelts

Drivers and all occupants shall wear seat belts whenever the Vehicle is moving.

#### 5.2.2 Driver competency

Drivers to have a valid driving license for the class of vehicle being driven and for the country in which it is being driven, are appropriately trained and assessed, and medically fit to drive the vehicle.

a. Drivers shall check that the area around the vehicle about to be driven is free from people and obstacles in the direction of driving, before moving the vehicle.

Before moving a parked vehicle, it is good practice for drivers to perform a 360° walk around and visually inspect the area to check that there are no people, obstacles or other hazards around the vehicle.

- b. Drivers shall comply with the applicable legal and regulatory requirements for driving.
- c. Drivers shall not exceed the posted speed limit or drive at an unsafe speed for the prevailing road conditions.
- d. Drivers shall be medically fit to drive and report to their Line Manager or to Occupational Health anything which could mean a change in their fitness to drive.
- e. Drivers shall hold a valid driving license for the class of vehicle being driven and to drive in that country, keep their licenses up to date and inform their Line Manager if they are no longer legally licensed to drive.
- f. Higher Mileage Drivers, drivers in Higher Risk Driving Countries and those undertaking Higher Risk Driving Activities shall once every three years complete all of the following:
  - 1. Accredited on-the-road defensive driver training and assessment when driving on public roadways
  - 2. Fatigue awareness training

3. BP approved driver training (e.g. BP MyTL e-learning course). It is expected that this training is conducted mid-way through the three year period for the on-the-road training.

It is intended that this training acts as refresher training, typically carried out at around 18 months after the most recent on-the-road defensive driver training.

- g. Other drivers (not covered by section 5.2.2f) shall once every three years complete a BP approved driver training (e.g. BP MyTL e-learning course).
- h. Drivers shall secure loose objects that could cause a distraction or could create a hazard to occupants during harsh braking.

### 5.2.3 Drivers fitness

### Drivers to be rested and alert and not drive any vehicle when fatigued.

- a. Drivers shall stop driving and take a break when fatigued, or sleep for an appropriate period before driving again or make other travel arrangements.
- b. Higher Mileage Drivers shall not work more than 14 hours within a rolling 24-hour period when driving a vehicle.
- c. Higher Mileage Drivers should not work more than 60 hours over a continuous 7day period when driving a vehicle.
- d. Higher Mileage Drivers shall not drive more than 10 hours within a rolling 24-hour period (maximum driving time between breaks is 4.5 hours).

### 5.2.4 Alcohol, drugs, other substances or medications

Drivers shall not be under the influence of alcohol or drugs, or their fitness to drive be impaired by medication or other substance.

### 5.2.5 Distracted driving

a. Drivers shall not use a mobile communication device while driving the vehicle; this includes, but is not limited to, mobile or smart phones, smartwatches (for voice, texting or email use), tablets, laptops, two-way radios or pagers (this includes using any such device in a hands-free mode).

Drivers operating an Emergency Response Vehicle while responding to an emergency situation are exempted from this requirement. For any other drivers, a time bound deviation request to this requirement can be submitted for approval, supported by a risk assessment, for the use of two-way radios: when responding to an emergency or security situation, as part of convoy management, or when needed to maintain safe management of equipment or process.

b. Drivers shall only set and re-set satellite navigation devices when the vehicle is safely parked.

### 5.2.6 Journey management

The risks of the journey to be assessed and a journey management plan to be in place when driving in Higher Risk Driving Countries.

a. Drivers shall adhere to the applicable Journey Management Plan (JMP).

Section 5.3 includes requirements for Higher Risk Driving Countries.

### 5.3 Risk based approach for Higher Risk Driving Countries and Activities

- a. Drivers shall comply with all controls put in place as a result of the application of section 5.3, in addition to sections 5.1 and 5.2.
- b. Upstream Entities shall:
  - 1. verify that an approved risk assessment is in place for driving in Higher Risk Driving Countries and for Higher Risk Driving Activities.

*Refer to the <u>BP Policy Risk Management 000030</u> which outlines the risk management requirements and process (e.g. Risk Identification, Risk Assessment, Risk Response and Risk Monitoring). Use can be made of the relevant Bowtie (e.g. standard <u>Road Accident Bowtie</u>).* 

The <u>Upstream Driving Safety Guide</u> gives guidance on controls for consideration in the risk assessment, related to: vehicle safety features, driver training and related criteria, driver working, driving and rest hours, JMP, IVMS and driver fitness for task.

- 2. apply Journey Management Plan (JMP) for driving in Higher Risk Driving Countries, for driving a MPTV and based on a risk assessment for undertaking any other Higher Risk Driving Activities.
- 3. verify whether a Risk Action Plan (RAP) is required by the risk management process to describe how barriers will be maintained.
- 4. verify that an appropriate Emergency Response Plan (ERP) is in place for Higher Risk Driving Activities.

*ERP* to include scenarios and actions to take for drivers in the event of a vehicle rollover, LOPC or vehicle breakdown.

### 5.4 Self-verification

- a. Drivers should demonstrate conformance to the Practice by completing the <u>Driving</u> <u>Safety Questionnaire</u> (DSQ).
- b. Upstream Entities shall:
  - 1. For driving in Higher Risk Driving Countries and for Higher Risk Driving Activities, conduct self-verification against all requirements in this Practice.
  - 2. For all other driving (not covered in section 5.4b.1above), conduct selfverification, either by checking the DSQs (where drivers have chosen to complete it) or as part of the annual performance review process, to demonstrate conformance to the Practice.
  - 3. In relation to BP Contractors in scope, check that the Practice requirements are met, and as necessary, communicate the Practice requirements to the BP Contractor.

These checks could be included in the BP Oversight Plan, through the HSSE Bridging process, SMS Bridging document or similar for the BP Contractor.

*Refer to <u>BP Procedure 100150 Upstream Contractor Safety Management</u> or the <u>Group Guide 2.5-0002 Working with Transport Contractors</u>.* 

# 6 Deviation and extension

Any deviation or extension from the application of any of the requirements of this Practice requires the prior written approval of its issuing authority.

# Annex A Light Vehicle safety features

Table A.1 - In-scope Light	Vehicle required safety features

Section	Requirements	
All Light Vehicles in scope of this Practice to be equipped or installed with: <i>This includes personal and</i> <i>rental vehicles used for driving</i> <i>on Business Travel.</i>	<ul> <li>Three-point seatbelts for all occupants.</li> <li>Seats with head restraints (adjusted appropriately) for all occupants.</li> <li>Fully functioning brake system equipped with Anti-lock Braking System (ABS).</li> <li>Tyres which are properly inflated, appropriate for the conditions, speed and load, and have a minimum tread depth of 1.6 millimeters across 75% of the width of the tyre.</li> <li>Airbags (front) for driver and front seat passenger.</li> <li>Vehicle side impact protection. (1)</li> </ul>	
Light Vehicles which are owned, leased or contracted by Upstream Entities (2) to also be installed with:	<ul> <li>NO Metal bull bars. (3)</li> <li>Electronic Stability Control (ESC) and side (curtain) airbags for driver and front seat passenger before 31 December 2020. (1) (4)</li> </ul>	
Light Vehicles which are newly purchased, leased or contracted (after 31 December 2017) by Upstream Entities (2) to also be installed with:	<ul> <li>Electronic Stability Control (ESC).</li> <li>Side (curtain) airbags for driver and front seat passenger.</li> <li>High level third brake light – a third separated brake light mounted centrally.</li> <li>Daytime running lights. (5)</li> <li>New Car Assessment Program (NCAP) safety rating of 5 stars in the region where the vehicle is purchased or, where there is no regional NCAP, the equivalent rating in the relevant country. (6) (7) (8)</li> </ul>	

1. Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), are exempted from this requirement until replacement of the vehicle.

- 2. Where Drivers are required to have a vehicle as a condition of their work (e.g. Sales manager, Chauffeur, Pipeline inspection engineer), but are permitted to choose it through a car allowance scheme, these vehicles are also in scope of these requirements.
- 3. Vehicles which are mainly used in 'off-road' and/or rural areas where there is a high risk of an animal strike are exempted from this requirement. Deformable (non-metal) bull bars which meet pedestrian safety standards (Australian standard AS4876.1 or European Regulation 78/2009/EC or equivalent) are acceptable.
- 4. Light Vehicles which are owned, leased or contracted by Upstream Entities which have an NCAP safety rating of at least 4 stars (or equivalent) are exempted from the side (curtain) airbags for driver and front seat passenger requirement until 31 December 2022.
- 5. Where permitted by local laws and regulations and if commonly available in the market. When daytime running lights are not commonly available in the market, an acceptable alternative is for drivers to be required to use the vehicle headlights during daytime to improve visibility to other road users where permitted by local laws and regulations.
- 6. For vehicles driving off-road an NCAP safety rating of 5-stars is expected to give sufficient rollover protection.
- 7. Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), are exempted from the revised 5-stars NCAP requirement in case the specified vehicle model is not available in the region with an NCAP safety rating of 5-stars. In this case, a vehicle with a NCAP safety rating of 4-stars is acceptable.
- 8. It is anticipated that all Light Vehicles in scope meet the NCAP safety rating of 5 stars (or equivalent) before 31 December 2023.

Section	Recommendations	
Light Vehicles which are newly purchased, leased or contracted (after 31 December 2017) by Upstream Entities should also be installed with (1):	<ul> <li>Autonomous Emergency Braking (AEB), or Forward Collision Warning (FCW) when AEB is not available. (2)</li> <li>Lane Departure Warning (LDW). (2)</li> <li>Parking sensors or parking assistance systems (for example backup camera). (2)</li> <li>Blind spot monitors / indicators. (2)</li> <li>Air conditioning / Climate control. (2)</li> </ul>	
	<ul> <li>Seatbelt reminder. (2)</li> </ul>	
Note:		
1. These advanced safety features are recommended for Light Vehicles which are newly purchased, leased or contracted, unless the risk assessment demonstrates that this safety feature is not providing the intended safety value for the type of operation.		
A risk-based approach for these features/technologies would be to take into account the type of accidents experienced within the country and the possible outcomes identified in a risk assessment, for all Upstream Entities in a given country, to select the most appropriate technologies, signed off by the 'Head of Country'.		

#### Table A.2 - In-scope Light Vehicle recommended (advanced) safety features

2. Where permitted by local laws and regulations, if commonly available in the market and if the safety feature is competitively available (e.g. as an optional extra) from the Original Equipment Manufacturer (OEM).

<u>'</u>Commonly available' in this context means that the safety feature(s) are OEM supplied and offered by several vehicle manufacturers in the country of operation of the vehicle. FCW and LDW might also be available to purchase (an alternative option) as an after-market solution. For more information, refer to the <u>Upstream Driving Safety</u> <u>Guide</u>.

# Annex B Heavy Vehicle safety features

Section	Requirements
All Heavy Vehicles which are owned, leased or contracted by Upstream Entities to be equipped or installed with:	Three-point seatbelts for all occupants. (1)
	• Fully functioning brake system equipped with Anti-lock Braking System (ABS). (2)
	• Tyres which are properly inflated, appropriate for the conditions, speed and load, and have a minimum tread depth of 1.6 millimetres across 75% of the width of the tyre.
	<ul> <li>Wide-angled fully adjustable rear vision mirrors on both driver and passenger sides of the vehicle and convex mirrors fitted appropriately to provide adequate vision of blind spots, including passenger side and in front of cab.</li> </ul>
	Audible reversing alarm, unless legal restrictions on these alarms force an exception.
Heavy Vehicles used for	• Side and rear under-run protection.
Higher Risk Driving Activities and Heavy Vehicles used in Higher Risk Driving Countries to also be equipped or installed with the following (3) if this is an outcome of the risk assessment required by Section 5.3.	• Anti-rollover equipment for articulated vehicles transporting bulk liquids: Electronic Braking System (EBS) and Electronic Stability Control (ESC) on the truck and Active Rollover Protection (ARP) installed on the trailer.
	• All front axle tyres to have a minimum tread depth of 3.0 millimetres over entire tread pattern and all other axle tyres (like rear and trailer axle tyres) to have a minimum tread depth of 1.6 millimetres across 75% of the width of the tyre or have the legal minimum tread depth (whichever measurement is larger). Not to use re-tread tyres on steer axles.
	Heavy duty wheel nut indicators fitted to all wheels on all axles.
For any other Heavy Vehicle	• Conspicuous rear and side markings (e.g. reflector strips 5 to 10 cm wide).
For any other Heavy Vehicle not within the categories above, the listed safety features are for consideration.	• High-visibility/pulse tail and brake lights and additional lights including braking lights and turn indicators installed to the rear of the vehicle at a minimum height of 1.70 meter from the ground.
	Laminated (non-splintering) safety glass for windscreen.
	• Mudguards and mud flaps with spray suppression flaps to the rear most axle(s).
	• Pedals fitted with non-slip type material (for example rubber pads).
	• Install foot valves (with shear grooves) and secondary shut-off valves on each outlet when carrying motor fuels.
	• Secure hatches and fittings such that they will not leak if the vehicle rolls over. (4)
	• At least two fire extinguishers. At least one fire extinguisher of two kilograms (four pounds) in the cab and at least one of six kilograms (twelve pounds) on the trailer. (4)
	• An approved master switch within sixty centimetres (two feet) of the batteries. (4)
	• An exhaust that includes a muffler, silencer or spark arrestor (4).

Table B.1 - In-scope Heavy	Vehicle required safety features
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Notes:

 For existing HV Multi Passenger Transport Vehicles (MPTVs) operating on public roads, lap seatbelts are acceptable until 31 December 2019. For existing HV Multi Passenger Transport Vehicles (MPTVs) operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), lap seatbelts are acceptable until replacement of the vehicle but no later than 31 December 2023. All other vehicles and any newly purchased, leased or contracted MPTVs are required to have three-point seatbelts.

 Heavy Vehicles which are manufactured before 01 January 2010 are exempted from the ABS requirement until 31 December 2023.

3. Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), are exempted from these safety features until replacement of the vehicle.

4. Applicable to Heavy Vehicles transporting dangerous goods/products with a flash point of less than 61°C (142°F).

Section	Recommendations
Heavy Vehicles which are newly purchased, leased or contracted (after 31 December 2017) by Upstream Entities should also be installed with (1):	<ul> <li>Autonomous Emergency Braking (AEB), or Forward Collision Warning (FCW) when AEB is not available. (2)</li> <li>Automatic Distance Control (ADC). (2)</li> <li>Alternating Brake Lights (ABL). (2)</li> <li>Vehicle camera system. (2) (3)</li> <li>Lane Departure Warning (LDW). (2)</li> <li>Energy absorbing rear underrun. (2)</li> <li>Rear camera / park assistance. (2)</li> <li>Blind spot detection device (turn-off assistant). (2)</li> <li>Air conditioning / Climate control. (2)</li> <li>Daytime running lights. (4)</li> <li>Seatbelt reminder (2)</li> </ul>

#### Table B.2 - In-scope Heavy Vehicle recommended (advanced) safety features

Note:

1. These advanced safety features are recommended for Heavy Vehicles which are newly purchased, leased or contracted, unless the risk assessment demonstrates that this safety feature is not providing the intended safety value for the type of operation.

A risk-based approach for these features/technologies would be to take into account the type of accidents experienced within the country and the possible outcomes identified in a risk assessment, for all Upstream Entities in a given country, to select the most appropriate technologies, signed off by the 'Head of Country'.

- 2. Where permitted by local laws and regulations, if commonly available in the market and if the safety feature is competitively available (e.g. as an optional extra) from the Original Equipment Manufacturer (OEM).
  - \_'Commonly available' in this context means that the safety feature(s) are OEM supplied and offered by several vehicle manufacturers in the country of operation of the vehicle. FCW and LDW might also be available to purchase (an alternative option) as an after-market solution. For more information, refer to the <u>Upstream Driving</u> <u>Safety Guide</u>.
- 3. Vehicles used for Higher Risk Driving Activities (all countries) which are owned, leased or contracted by Upstream Entities are required to be installed with a vehicle camera system by section 5.1.1h of this BP Practice. For other Heavy Vehicles the use of vehicle camera is recommended.
- 4. Where permitted by local laws and regulations and if commonly available in the market. When daytime running lights are not commonly available in the market, an acceptable alternative is for drivers to be required to use the vehicle headlights during daytime to improve visibility to other road users where permitted by local laws and regulations.

# Annex C In Vehicle Monitoring System (IVMS) and vehicle camera system

Section
Vehicles in Higher Risk Driving Countries which are owned, leased or contracted by Upstream Entities to be installed with an In Vehicle Monitoring System (IVMS) (1) (2) which is able to record at least the following parameters:

#### **Table C.1 - In Vehicle Monitoring System**

- IVMS consists of an electronic device or number of devices installed in the vehicle to monitor driver activities and help identify behaviours such as excessive speed, harsh braking and rapid acceleration.
- Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed 2. limit does not exceed 20 miles/hr (30 Km/hr), are exempted from this requirement.

Section	Requirements
Vehicles used for Higher Risk Driving Activities (1) which are owned, leased or contracted by Upstream Entities (2) to be installed with a vehicle camera system before 31 December 2021 which consist of the following:	<ul> <li>Event (3) driven video recording technology combined, wherever legally allowed (4), with the capability for constant recording (5) to store a rolling minimum 24 hours of footage.</li> <li>A forward facing camera combined, wherever legally allowed (4), with a driver facing camera.</li> <li>The capability for driver to manually activate a recording (in addition to recorded events).</li> <li>Recorded events to be accessed remotely and transferred via 3G or the cloud. For constant recording, as minimum the rolling footage to be stored on the SD card or hard-drive where access remotely is preferred.</li> </ul>
	<ul> <li>An additional "passenger facing" camera when using a Coach or Bus (specific type of MPTV).</li> </ul>

#### Table C.2 - Vehicle camera system

Note:

- 1. Scope of vehicles used for Higher Risk Driving Activities includes Multi Passenger Transport Vehicles (MPTVs) (e.g. mini-van, bus or coach) and vehicles to transport dangerous goods/products (e.g. fuel tanker) in all countries. Other vehicles used for Higher Risk Driving Activities, if this is an outcome of the risk assessment required by Section 5.3 as per the Practice.
- 2. Vehicles operating in an airport service area or at a BP Operated Location, provided that the maximum speed limit does not exceed 20 miles/hr (30 Km/hr), are exempted from this requirement.
- 3. Event driven based on defined parameters such as speed, harsh acceleration, harsh deceleration (e.g. braking) and harsh cornering (e.g. G-force triggered settings), refer to Table C1.
- 4. Where applicable legal requirements allow, including data privacy laws and consultation with works councils/driver unions.
- A constant recording camera which is integrated / linked to a vehicle telematics or Vehicle Data Recorder (VDR) 5. system is an acceptable solution if the events from the VDR system are used to collect and review the footage for that event.