

# VEHICLE EXHAUST OUTLET LOCATION

## Vehicle propulsion or auxiliary engine exhaust.

- The exhaust outlet must not discharge within 1 m of any fuel connection, vent or component opening.
- No part of an unshielded exhaust system can be located within 200 mm of a cargo carrying component.

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# HOT COMPONENT PROTECTION

## Spillage control.

- Hot components must be protected against spills or leaks, by a shield or deflector.
- Minimum clearances are required between hot component shields and fuel carrying components (125 mm).
  - 75mm between shield and fuel component.
  - 50mm between hot component and shield.
- A deflector is a panel designed to prevent fuel from making contact with hot components.

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# WHAT IS A HOT COMPONENT?

## Hot component definition.

-Any part of a vehicle or auxiliary engine, or exhaust system that can reach 180 °C or higher.

*Special Cargo: If the auto ignition temperature of the fuel is less than 200 °C, then a temperature of 20 °C below the auto ignition temperature of the fuel, will be considered a hot component.*

*Example: Diethyl Ether 160 °C*

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# BATTERY ISOLATION

## In cabin switch.

- A switch to isolate the battery's must be installed on the vehicle dashboard:
- in a position that is visible and easily accessible;
- clearly labelled; and
- protected against unintentional operation.

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# MANDATORY LIGHTING

## Lighting that may be active during fuel transfer.

- ADR13/00 or later lighting located within a hazardous zone must comply with the following:
- must be “LED”;
- must be a minimum of IP 67; and
- must not be located within 500 mm of any fuel connection point, vent or opening.

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# NON-MANDATORY LIGHTING

## Lighting to improve operator safety during fuel transfer.

- Non-mandatory lighting may be fitted within a hazardous zone, if the lighting is required to improve operator safety, but must comply with the following:
- must be “LED”;
- must be a minimum of IP 67;
- must have a maximum power consumption of 40W per lamp; and
- must not be located within 1 m of any fuel connection point, vent or opening.

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# ISOLATION AND ROLLOVER SWITCH TIMING

## Battery and rollover switch activation timing.

- A battery isolation switch and rollover device must be provided to shut down the engine, including any auxiliary engine and all power sources that are not permanently energized:
- The battery isolation switch must break circuits within 10 seconds of activation.
- The roll-over cut out device time delay for activation must be no more than 3 seconds after detection of roll-over.

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# DRIVEAWAY PROTECTION

## Brake interlock.

The interlock must comply with the following:

- interlock cannot be activated unless the vehicle brake is engaged; and
- interlock cannot be released unless the vehicle brake is engaged.
  
- Items attached to the tank or tank pipework, that may cause structural damage to fuel components or loss of containment if left unsecured or projecting from the tank, must be interlocked with the vehicle braking system to prevent the vehicle from moving in the event the item is not stowed, removed or secured.

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# VEHICLE DRIVER CABIN

## In-cabin devices.

- The area within the main driver cabin is classified as a non-hazardous area during normal operation.

*NOTE: to achieve this classification, the cabin doors and windows must remain closed during fuel transfer.*

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# EQUIPMENT IN HAZARDOUS AREAS

## Vehicle manufacturer proprietary equipment.

- Equipment fitted by the original equipment vehicle manufacturer, to the outside rear of the vehicle cabin that does not meet IP 65 may be accepted; provided it is secured against accidental disconnection and is adequately protected from the ingress of water or dirt.

*Examples of manufacture equipment; transmission temperature sensors; electronic braking system components; etc.*

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# EQUIPMENT IN HAZARDOUS AREAS

## Non-Vehicle manufacturer proprietary equipment.

- Electrical equipment not manufactured by the original equipment vehicle manufacturer must be ingress protected to a minimum of IP 65.
- Electrical connections between truck and trailers, for lighting or power, must have a protection rating of at least IP 54 and be designed to limit unintended disconnection.

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# COMPARTMENT OPENINGS

## Manholes to AS 2865

- Compartments must be accessible through an opening with dimensions in accordance with AS 2865.

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# AS2809 IMPLEMENTATION & APPLICABILITY

## Parts 1 to 6

- Parts 1 and 2.
  - To be finalise September 2019.
  - Release end 2019 or early 2020.
  - Parts 3, 4 and 5 are currently under review.
  - Part 6 has been published.
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- AS2809 will be effective once called up in the next edition of the Australian Dangerous Goods Code (ADG).
  - Standards are not retrospective, but older units can be upgraded if they comply to the complete standard.

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