

# Carriage of Explosives by Road - Heavy Vehicles

Guide to applicants - licence to carry over 1000kg of explosives.

**October 2020**

In South Australia, any vehicle which transport explosives by road must be issued with a licence to carry explosives (Regulation 7.03, *Explosives Regulations 2011*). Regulation 7.13 provides detailed requirements for vehicles carrying explosives in South Australia. In particular, Regulation 7.13(7) states that:

A quantity of explosives exceeding 1000 kilograms shall not be carried in a vehicle or boat without the written authority of an inspector and in accordance with any conditions contained in that authority.

When a company or person that applies for a licence to carry explosives SafeWork SA needs to assess whether both the vehicle and applicant are suitable for that purpose. This purpose of this guide is to inform applicants for a new vehicle licence of the information required in order for SafeWork SA to assess your application. It does not apply to renewal of existing licences, unless a substantial change is made to the vehicle's construction.

## General

Every vehicle involved in the carriage of explosives must hold an appropriate licence. This includes rigid carry vehicles, trailers and prime-movers. A licence is generally only issued to the registered owner of the vehicle (Regulation 7.01). Where a person hires a vehicle for the purpose of carrying explosives, the applicant will need to supply a copy of the hire / lease agreement including acknowledgement by the registered owner that the applicant is authorised to use the vehicle for carriage of explosives.

The applicant will need to state the maximum quantity of explosives to be carried, describe the type of explosives, and whether or not mixed loads of detonators and high explosives are to be carried. Schedule L of the Regulations provides the equivalent explosive weights for detonators. Example descriptions include:

- 5000 kg packaged high explosives (HE), or
- 10000 kg packaged HE and 10000 detonators (160 kg NEQ equivalent), or
- 15000 kg bulk Class 1.5D.

Any vehicle used to tow a trailer carrying explosives must also hold a licence to carry. The total quantity of explosives carried across all vehicles in a combination must not exceed the maximum licenced limit of the towing vehicle.

## Vehicle construction

In general, SafeWork SA requires each licenced vehicle to comply with the *Australian Code for Transport of Explosives by Road and Rail, 3<sup>rd</sup> Edition* (the "AEC"). This Code sets out standards for vehicle construction, placarding, documentation and emergency procedure guides, safety equipment, safety management and security management. It is a condition of all licences to carry explosives above 1000 kg that the operator complies with the AEC.

Mixed loads of detonators and HE may be carried together on the same vehicle only if they are effectively segregated. SafeWork SA will only accept segregation complying with Clause 7.3.2 of the AEC, or an approved segregation barrier constructed in accordance with the *Australian Explosives Industry Safety Group Code of Practice: Segregation Barriers For Transporting Mixed Loads Of Detonators And High Explosives* (the "AEISG Code"). AEISG segregation barriers must be accompanied with a certificate from an engineer certifying compliance with the AEISG Code.

## Freight containers

Freight containers may be used as demountable carry boxes if constructed in accordance with Clause 6.3 of the AEC, but the container itself does not need a licence. SafeWork SA links freight containers to vehicles by listing the container on the conditions of the vehicle's licence – a vehicle may have more than one freight container listed on its conditions, and one container may be linked to several vehicles. The container will be identified by SafeWork SA using its 10 digit unique identifier (e.g. ABCU 001234).

Containers must use a twistlock mechanism to secure the container to the vehicle, complying with AS 3711.1:2015. Other mechanisms or methods proposed to be used to secure the container may require an engineer's report to certify its suitability.

## Evidence required

In order to ensure smooth processing of your application, you will need to provide sufficient evidence that the vehicle is constructed and managed to the required standard for carriage of high risk loads of explosives. The attached checklist provides the minimum information that SafeWork SA will rely on to assess your application. Different situations require different evidence to be supplied. For example, a safety management system will need to be supplied for a prime mover but not a trailer, while carry box construction is required for a trailer but not a prime-mover, but a rigid carry vehicle will need both sets of information.

Table 1: List of evidence required to accompany a licence to carry explosives application

	Rigid vehicle	Prime mover	Trailer	Freight container (Note 4)
<b>General</b>				
Registration certificate	X <sup>Note 1</sup>	X <sup>Note 1</sup>	X <sup>Note 1</sup>	N/A
Photographs of all four sides of the exterior of the vehicle.	X	X	X	X
<b>Vehicle construction / fixtures</b>				
Specify the fuel used for the vehicle. <i>AEC 6.4.2(j)</i>	X	X	N/A	N/A
Photographs of the location and labelling of the automatically or manually operated fuel cut-off valve. <i>Regulation 7.13(5)(e)</i>	X <sup>Note 2</sup>	X <sup>Note 2</sup>	N/A	N/A
Photographs of the location of the battery and battery isolation switch. <i>Regulation 7.13(5)(d) and AEC 6.4.2(2)(d-h)</i>	X <sup>Note 2</sup>	X <sup>Note 2</sup>	X <sup>Note 2</sup>	N/A
Provide details of the fuse or circuit breaker system protecting the electrical systems of the vehicle. <i>AEC 6.4.2(2)(f)</i>	X <sup>Note 2</sup>	X <sup>Note 2</sup>	X <sup>Note 2</sup>	N/A
Provide details that wiring outside, to the rear of the vertical firescreen and under the load area is be enclosed in conduit to AS2053 or ASD26 (flared fittings), so that there are no exposed wires or connections. <i>AEC 6.4.2(2)(e)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	N/A
Provide details of the location of the exhaust pipe. <i>AEC 6.4.2(2)(c)</i>	X	N/A	X	N/A
<b>Explosives carry boxes</b>				
Photographs of the location & type of all placarding, emergency information panels and "EXPLOSIVES" signs fitted to the vehicle. <i>Regulation 7.13(1) &amp; AEC 3.4.1(1)(a to c)</i>	X	X	X	X
Provide photographs of the interior of each enclosed vehicle body fitted to the trailer.	X	N/A	X	X
Provide details of the exterior materials of construction of the enclosed vehicle body. <i>AEC 6.2.(2)(c)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>
Provide details of the interior materials of construction of the enclosed vehicle body. <i>AEC 6.2.(2)(b, e-h)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>
Provide details of all door closures and locking mechanisms <i>AEC 6.2.(2)(d)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>
Provide details of the horizontal firescreen of the trailer's tray <i>Regulation 7.13(5)(b) and AEC 6.4.2(2)(a)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>
Provide details of the vertical firescreen at the front of the trailer <i>Regulation 7.13(5)(b) and AEC 6.4.2(2)(b)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>
If the vehicle is carrying combination loads of different compatibility groups, provide a copy of the engineer's report certifying compliance with the AEISG Code	X	N/A	X	X
Specify how the carry box is secured to the vehicle (not applicable for enclosed vehicle bodies). <i>AEC 6.2(2) and 6.4.1(2)(e)</i>	X <sup>Note 2</sup>	N/A	X <sup>Note 2</sup>	X <sup>Note 2</sup>

	Rigid vehicle	Prime mover	Trailer	Freight container (Note 4)
<b>Safety equipment and management</b>				
Specify the location, type and capacity of fire extinguishers or fire suppression system fitted to the vehicle. <i>AEC 8.3.9 (1) &amp; (2)</i>	X	X	X	N/A
Provide a copy of the emergency management plan for this vehicle. <i>AEC 8.3.14 and 8.4.6</i>	X <sup>Note 3</sup>	X <sup>Note 3</sup>	N/A	N/A
Provide a copy of the vehicle management plan applicable to routine operation of this vehicle. <i>AEC 8.3.6, 8.3.10 to 8.3.13, 8.3.15 and 8.4.5.</i>	X <sup>Note 3</sup>	X <sup>Note 3</sup>	N/A	N/A
Photographs of the location of the emergency procedure guide. <i>AEC 8.3.8 (1) (a-b)</i>	X	X	N/A	N/A
Provide details of the safety equipment carried on the vehicle. <i>AEC 8.3.9 (3) and (4)</i>	X	X	N/A	N/A
Provide a copy of the security management plan for this vehicle. <i>AEC 8.8</i>	X <sup>Note 3</sup>	X <sup>Note 3</sup>	N/A	N/A
Provide a copy of the training and certification plan for drivers of this vehicle. <i>AEC 8.3.13 and 8.4.3</i>	X <sup>Note 3</sup>	X <sup>Note 3</sup>	N/A	N/A
Provide evidence that insurance covers the vehicle for explosives transport insured. <i>AEC 8.3.5</i>	X	X	X	N/A

Note 1: An application for a hired or leased vehicle must supply a copy of the hire agreement and acknowledgement by the owner of the vehicle that it will be used for carriage of explosives.

Note 2: In the alternative to photographs, a report from an independent engineer (or independent competent person) can be supplied detailing compliance with the specified requirement.

Note 3: The vehicle management, emergency management, security management and training plans may be covered by individual plans, or by one single plan as appropriate for the applicant. If this has already been provided in an application for a different vehicle (and the management plans are still current), please provide details of that vehicle to SafeWork SA so the documents can be retrieved and cross-referenced.

Note 4: Where more than one freight container is nominated as a carry box, the information must be supplied separately for each container.

One piece of evidence may satisfy more than one criteria (e.g. photographs of all four sides of the vehicle may also be used to show the location of placarding).