ADG Code Review Information Webinar - FAQs

FAQs

This FAQ document addresses questions raised by stakeholders during, or in response to, the information webinar held on 23 June 2022.

Questions raised have been grouped by theme. To avoid repetition, and where appropriate, multiple questions have been amalgamated to form a single representative question.

If you would like to familiarise yourself with the ADR, you can access the latest version *here*.

Structure and Navigation of the ADG Code

Q1 Has any consideration been given to aligning the regulation numbers referenced in the ADG Code with state regulations rather than the model regulations?

A The clause numbers in the ADG Code replicate those in the United Nations Model Regulations. Following the review, clause numbers will replicate those in the ADR. Any changes to the clause numbers would not be maintainable and would render the ADG Code impossible to navigate.

The NTC investigated amending the numbering in the model regulations to align with the regulation numbering in state legislation. However, it was found that there were many areas of non-alignment of numbering across the jurisdictions. These areas of non-alignment were primarily due to the different drafting protocols in each jurisdiction. The review will provide an opportunity to work with drafting offices in each jurisdiction to identify where and how alignment can be achieved. It's hoped that where alignment cannot be achieved, the drafting of new regulations will enable the development of a central list of variations that can be updated with each amendment package.

Q2 The current ADG code is 1286 pages long. Will the review also consider the ease of interpretation by transport managers and other stakeholders? Complying with the obligations is challenging when interpreting the guide is not easy to begin with.

A It won't be possible to take the complexity out. It is a complex system. However, by following the structure of the ADR a duty holder will be able to easily navigate to the specific section relevant to them. In addition, many countries that are contracting parties to the ADR have released user guides for businesses, which summarise the core information into simple guidance. By aligning to the ADR, there may be an opportunity for Australia to leverage off these guides.

ADR Carriage of Dangerous Goods by Road – A Guide for Business Health and Safety Authority, Ireland

Carriage of Dangerous Goods Manual Health and Safety Executive, United Kingdom

Q3 Can Hazchem Codes be added to the Dangerous Goods List (DGL)?

A Australia's use of Hazchem Codes is subject to a licensing agreement with the UK National Chemical Emergency Centre (NCEC), who own the copyright. The licensing

agreement restricts how we use and publish the Hazchem Codes. These restrictions include the prevention of printing or copying from the document. If we were to include the Hazchem Codes in the DGL, we would need to add the same restrictions to the entirety of the ADG Code. To avoid this, Appendix C of the ADG Code (Hazchem information and Codes) will be published as a separate document to the ADG Code, starting from ADG 7.8.

Q4 Is there an intent to make the ADG not simply a document that is published and searchable by current (i.e. pdf searching) means but a fully digital document that includes actionable links, searches and workflows? It seems that this may be the obvious outcome of a document that seeks to impose controls.

A There is no intent in the foreseeable future to do this. It has been explored but the work and cost involved was found to be prohibitive. Unlike the IMDG or IATA Codes, these costs cannot be passed on to users of the ADG Code due to a commitment to ensure the ADG Code remains free.

Q5 Previous editions of the code listed in the contents section a list of tables, which took us straight to the correct page in the code for specific IBC's, portable tanks etc. Can these tables be put back into the new code for ease of use?

A Indexing and linking to most tables is included in ADG 7.8. The exception to this is linking to individual packing instructions. We will look to do this for future editions of the ADG Code.

Q6 Is there any consideration of including properties & observations as per the last column of the Dangerous Goods List in the IMDG (or ADG 6)?

A A description as such won't be considered during the review as we have no way to maintain it. The additional ADR columns may provide some additional information. More detailed information on hazards is also available in the Australian & New Zealand Emergency Response Guide.

Q7 Will the NTC make the source code for the ADG Code available, or will it only be available in pdf?

A The ADG Code will be published as a pdf. There will be no restriction on downloading, copying or printing of the pdf. An editable excel version of the Dangerous Goods List will be published on the NTC website and free to download.

Training, Licensing and Competence

Q8 Will the review lead to increased regulation relating to licensing of vehicles and drivers transporting dangerous goods?

A The review will look at the thresholds at which licensing is required. The aim will be to ensure an appropriate risk-based approach. Looking at the requirements in the ADR and other overseas legislation, it's likely that the threshold at which licences are required will change. A tiered approach to licensing will also be investigated. For example, drivers transporting a placard load of packaged dangerous goods vs drivers of tank vehicles. The risk, and the compliance requirements between these differ considerably.

Q9 Will licences be harmonised, for example, with HVNL requirements?

A The review will explore avenues for dangerous goods related licences to be an endorsement on existing driver licences and vehicle registrations. This will not address the problem of having to transfer a licence or registration when moving interstate. However, it will remove the need to transfer the dangerous goods licence separately. This will prevent the delays currently experienced when dangerous goods vehicles are relocated.

Q10 Will the current dangerous goods driver unit of competency be superseded?

A. The content of the training and competency will need to be reviewed and updated to incorporate changes to requirements in the revised ADG Code.

Q11 Will there be more consideration in training requirements of the difference in risk of a load of dangerous goods packed in limited quantities vs other packaged dangerous goods vs a load transporting dangerous goods in tanks?

A The training working group will be tasked with developing a training matrix that identifies fit for purpose competency requirements for the different duty holders, relevant to the tasks they perform and the risk profile of the dangerous goods consignments and/or loads.

Q12 Many prime contractors demand evidence of driver training and emergency equipment when the type, packaging and quantity doesn't call for it. Will this be addressed.

A At present, the only recognised training is the dangerous goods driver licence training. This training is not appropriate for drivers of vehicle transporting packaged dangerous goods. The course teaches how to comply with requirements for transporting dangerous goods in placardable units and tanks. These requirements are quite different to those for packaged dangerous goods. As part of their contractor management, prime contractors often ask for evidence of training, in the absence of fit for purpose training they will generally ask for evidence that driver holds a dangerous goods licence.

As part of the review, we will be developing a training matrix that clearly shows what training is required for individuals, depending on the tasks they do. The matrix will also make a clear distinction between training for drivers transporting LQ vs packaged vs tanks.

Q13 Will there be more targeted and fit for purpose training for specific duty holders, e.g. consigners vs loaders vs, drivers, etc.?

A One of the deliverables endorsed by Transport Ministers is the development of a training matrix that maps competency requirements to tasks performed. The Training working group will work with relevant bodies to identify and map to existing competencies within the Australian Quality Training Framework and to identify gaps. It's not anticipated that completing these identified competencies will be compulsory. However, it is expected that identifying them will encourage more RTO's to make them available. It's also expected that regulators and duty holders will be able to use them as evidence of appropriate training.

Q14 The regulations state that anyone involved with DG's must be trained. They also state that an employer cannot instruct someone to perform a task unless they have been trained in the task. Will the review result in more specific training requirements?

A The training matrix (see answer to previous question) will serve as a guide to what is considered appropriate training

Q15 How will technical classification competencies be included and at what level?

A The competencies in the training matrix will be aimed at how to identify and comply with relevant provisions. Technical qualifications are outside the scope of the transport legislation and the review. Classification tests are specified in the Manual of Test and Criteria. The laboratory conducting the tests is responsible for ensuring the competency and qualification of personnel to carry out and interpret the tests.

Classification

Q16 Is there a possibility to add a division to class 8 to identify Acids from Alkalis?

A Dangerous Goods Classes are unified around the world and come from the United Nations (UN). Australia is unable to introduce new classifications that are outside the UN system.

The issue of acids and alkalis is a complex one and the common belief that there is a blanket prohibition on transporting (by road) acids with alkalis, is incorrect. It also fails to recognise that some acids can react dangerously with other acids and some alkalis can react dangerously with other alkalis. There are many acids and alkalis that can be transported together. Many such mixed loads occur every day.

The compatibility matrix in Part 9 of the ADG code permits Class 8 (both acid and alkalis) to be transported together, with the following exception (6). '*Some specific examples of these Classes or Divisions are incompatible — see Table 9.2.'* Table 9.2 gives the following example of incompatible Class 8 substances '*Concentrated strong acids with Concentrated strong alkalis'*. In chemical terms, the term 'strong acid' or 'strong alkali' is defined as a substance that completely dissociates in water'. There are a very limited number of acids or alkalis that meet this criterion. Included under Table 9.2 of the ADG Code is the following Note:

> *'Note: Although both acids and bases (alkalis) are both Class 8 dangerous goods they can be incompatible as a transport load. In particular, what is described as strong acids and strong bases have long been considered incompatible due to the potential for violent reaction. The exact strength of the acid or base that will result in a violent reaction (explosion or fire) or evolve gases (flammable or toxic) depends heavily on the actual acids or bases being transported. Incompatibilities should be determined from the SDS in the first instance. Advice can also be obtained from a suitable industrial chemist, dangerous goods transport professional or State or Territory regulatory authority.'*

The consignor of a specific Class 8 substance should be able to provide information on any particular incompatibly risks for their product. The application of a blanket rule for segregating acids from alkalis is generally seen as way to avoid having to identify specific incompatibility.

The review of the ADG Code will see us align more closely with the ADR. As part of this closer alignment, we're intending to include the use of Classification Codes. These classification codes, which are shown in column 3(b) of the ADR dangerous goods list, provide a clear indication of the hazardous properties of the substance or article. For

Class 8 Corrosives, the classification codes indicate if the UN number is an acid, a base, organic, inorganic, liquid or solid. Additional properties, e.g. toxic, flammable, oxidizing, etc. are also indicated by the classification codes. Incorporating these classification codes will address the issues raised.

The classification codes for Class 8 are specified in 2.2.8.1.4.11 of the ADR.

2.2.8.1.4.1 Substances and articles of Class 8 are subdivided as follows:

C1-C11 Corrosive substances without subsidiary risk and articles containing such substances:

C1-C4 Acid substances:

C1 Inorganic, liquid;

C2 Inorganic, solid;

C3 Organic, liquid;

C4 Organic, solid;

C5-C8 Basic substances:

C5 Inorganic, liquid;

C6 Inorganic, solid;

C7 Organic, liquid;

C8 Organic, solid;

C9-C10 Other corrosive substances:

C9 Liquid;

C10 Solid;

C11 Articles;

CF Corrosive substances, flammable:

CF1 Liquid;

CF2 Solid;

CS Corrosive substances, self-heating:

CS1 Liquid;

CS2 Solid;

CW Corrosive substances which, in contact with water, emit flammable gases:

CW1 Liquid;

CW2 Solid;

CO Corrosive substances, oxidizing:

CO1 Liquid;

CO2 Solid;

CT Corrosive substances, toxic and articles containing such substances:

CT1 Liquid;

CT2 Solid;

CT3 Articles;

CFT Corrosive substances, flammable, liquid, toxic;

COT Corrosive substances, oxidizing, toxic.

Q17 There has been talk for a number of years in relation to diesel. Diesel is classified as a class 3 flammable liquid in other countries but not here in Australia, here it is a C1 combustible liquid. Is this likely to change in the new version of the code to be in line with international standards?

A It will certainly be examined. Based on the UN classification criteria, diesel meets the criteria as a Class 9. However, many countries around the world recognise that this misrepresents the risk so have expanded the flammability criteria for UN 1202 to capture diesel. The ADR contains the following three entries for UN 1202:

UN No.	Proper Shipping Name	Class	PG
1202	GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT (flash-point not more than 60 °C)	3	III
1202	DIESEL FUEL complying with standard EN 590:2013 + A1:2017 or GAS OIL or HEATING OIL, LIGHT with a flash-point as specified in EN 590:2013 + A1:2017	3	III
1202	GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT (flash-point more than 60 °C and not more than 100 °C)	3	III

Past reviews of the classification of diesel have also recognised that the Class 9 classification was of less concern than the flammability. However, Australia chose to determine diesel as a non-DG.

The evidence and data assessed during past reviews of diesel support the regulating of diesel as a Class 3 Flammable Liquid. Given the risk-based approach to the requirements and the closer alignment to the ADR, UN 1202 in the ADG Code will be expanded to include Diesel with a flash point in the range of 60 – 93^{O}C.

Q18 If diesel is classified as a Class 3 for transport, it will flow on to storage without further risk classification in jurisdictions using ADG classification s for storage.

A Diesel is classified as a GHS Category 4 Flammable Liquid. Classifying it as a Class 3 dangerous goods for transport will not impact its GHS classification. For jurisdictions using GHS classifications for storage and handling there should be no impact. For the two jurisdictions still using dangerous goods classifications for storage and handling, it will be up to the workplace safety regulators to determine how they manage the risks in storage. Noting that the risks in transport are different to those in storage.

Interaction with other (non-DG transport) legislation

Q19 Will there be consideration of where the ADG Code is called up by other legislative instruments?

A The NTC will attempt to identify other legislative instruments that call up the ADG Code. Authorities that administer those instruments will be notified of new or changed requirements. It will be up to those authorities to analyse the impact on their instruments and amend them as relevant.

Q20 With the inclusion of Class 1 Explosives into the ADG Code, will this mean that dangerous goods drivers' licences will now include Class 1?

A Only the technical requirements for Class 1 will be incorporated into the ADG Code. Legislative requirements, including licensing provisions will remain in each

jurisdiction's relevant explosives legislation. In practice, this will mean that explosives legislation will call up the ADG Code for 'how to comply' rather than calling up the Australian Explosives Code (AEC).

Q21 For ease of compliance, what synergies can be achieved between storage/warehousing and transport?

A Dangerous goods classifications and requirements are intended to address the risk during transport. The Globally Harmonised System for the Classification and Communication of Hazardous Chemicals (GHS) is used for storage and handling. All Australian states and territories have transitioned to GHS for storage and handling. The exception being Victoria and Western Australia, who both currently use a mixture of GHS and DG. There is working group at the United Nations level working to ensure the correlation between GHS classification and DG classification.

Other

Q22 Will the use of quick release brackets on trailers for fire extinguishers be reviewed?

If a trailer is on fire, running into the trailer to get the extinguisher is not ideal – most operators, if safe to do so, would unhook the prime mover. There is also a high incidence of theft of extinguishers during driver rest breaks.

A This was the subject of discussions by the DG Maintenance Advisory Groups some years ago. At the time, there were strong objections to having fire extinguishers locked up. The review will include a full review of fire protection for vehicles. This will include exploring alternatives to fire extinguishers.

Q23 Roll stability for tank vehicles and vehicles transporting portable tanks

The ADG Code specifies that, *except when the tank is nominally empty, dangerous goods in the liquid state must not be transported on a road vehicle in a portable tank having a capacity of more than 7,500 litres, unless:*

(a) the height of the centroid of the tank cross section at tank half length falls within an isosceles triangle having:
- ***(i) a base length at ground level equal to the overall width between the outside walls of the outside tyres of the main load bearing axle groups, and***
- ***(ii) base angles not exceeding 64 degrees; or***

(b) *the distance between the ground and the load bearing surface of the bottom corner casting of the loaded tank does not exceed 1100mm.*

Will the review look at alternative methods for calculating roll stability, e.g. the method used during PBS evaluation of the vehicle?

A Alternative methods for determining roll stability will be explored as part of the review. This exploration will include looking at the method used during PBS evaluation and the methodology specified in 9.7.5 of the ADR.

Q24 Vehicle selection - Will there be any consideration or changes regarding vehicle selection? Specifically, the use of electric powertrains including new risks from the use of Lithium-Ion batteries or hydrogen fuelled vehicles.

A Yes, the review will look at how the risks associated with new vehicle technologies are addressed.

Q25 Is there an intention to remove the requirement for EIPs on IBCs and placardable units?

A The concept of a 'placardable unit' is uniquely Australian. This creates multiple problems for cross border and cross mode transport. It has also led to multiple contradictions and gaps in the ADG Code. In addition, it introduces risks to the safety of workers required to relabel imported goods. There is no intention for this concept to be reintroduced into the ADG Code as part of the review. The size of container at which standard placarding and marking changes to EIPs will also be closely examined with the view to better alignment with overseas practices.

Q26 Inclusion of route restrictions on dangerous goods transport documentation – Every state has specific prohibited areas or no go zones. These vary extensively from state to state and would be very difficult to put into a transport document for a load travelling through multiple states.

A The route prohibition imposed by state or local governments are intended to manage infrastructure capability and community expectations. Other than the prohibition on placard loads of dangerous goods through tunnels, these state or local government prohibitions generally apply to mass and dimension, or configuration of the vehicles, regardless of the freight being transported. Route restrictions in the ADG Code are aimed at controlling risks specific to high-risk dangerous goods loads, such as Class 1 Explosives or Class 7 Radioactive Material. Examples include:

1588 CYANIDES, INORGANIC, SOLID, N.O.S. which includes the instruction 'S9'. S9 is defined in Chapter 8.5 of the ADR as: *During the carriage of these substances, stops for service requirements shall as far as possible not be made near inhabited places or frequented places. A longer stop near such places is permissible only with the consent of the competent authorities.*

Where the transport is being carried out in accordance with an Approval from the competent authority and the Approval specifies the particular route to be taken.