
7 Transport safety

Key points

- Dangerous goods and explosives transport regulations aim to reduce the risks to the public, employees, property and the environment, from accidents and incidents.
- Regulation of dangerous goods and explosives transport appears to have been effective in producing a lower rate of accidents among dangerous goods vehicles.
- The transport of dangerous goods has been regulated consistently across jurisdictions within a national policy framework. Australian Government template legislation and regulations and the Australian Dangerous Goods (ADG) Code have been largely adopted by all jurisdictions. This consistency has delivered significant benefits to industry and consumers.
- New model legislation and regulations, together with a significantly restructured ADG Code, are being introduced in 2008. Individual jurisdictions have agreed to develop their own legislation and regulations based on the national models, in a uniform or nationally consistent manner. Technical regulations will still be largely implemented through a common code (ADG7) which reflects international standards. In view of the risks in moving from template to model legislation, the National Transport Commission (NTC) needs to closely monitor how consistently the new framework is implemented.
- The transport of explosives is regulated under legislation and regulations developed in individual jurisdictions, but which refer in varying degrees to the Australian Explosives Code on technical matters. These differences impose unnecessary costs on firms and should be removed. As a first step, the new Code should be uniformly adopted. A further process to develop uniform legislation and regulations should follow.
- Transport of dangerous goods and explosives by air and sea is regulated nationally, in line with international standards.
- Nationally, dangerous goods land transport regulation is developed by the NTC, reporting to transport ministers, while in most jurisdictions the regulation is administered by workplace safety authorities. The strong governance framework in transport, together with problems in introducing national reforms in the workplace safety area, favours retention of dangerous goods policy in the transport forum.
- Charges for printed and web-based copies of the dangerous goods and explosives codes appear high and should be reduced to cover only avoidable costs. Governments should address any resultant shortfalls in agency funds.

This chapter examines the domestic regulation of the transport of chemicals, the bulk of which are carried by road and rail. In addition to being subject to generic and freight transport regulation, chemicals transport is also subject to dangerous goods and explosives legislation, regulations and codes.

7.1 The case for regulating the transport of dangerous chemicals

The transport of dangerous goods (most of which are chemicals covered by this study) poses a number of risks relating to accidents, leakages or theft. Chemical spills or leaks from transport vehicles can create risks to the health of the general public, occupational health and safety (OHS) risks to drivers and workers involved in dealing with chemical discharges, and can cause harm to the environment. The extent of such risks and associated costs will depend on the location of the incident, the chemical, and the quantity involved.

Potentially, such risks could be managed by imposing all of the costs of any such incidents on those responsible for transporting chemicals, either by legislation or through common law. In this situation, transporters would have an incentive to seek out and undertake those actions that were cost effective in reducing the potential (risk-adjusted) costs of incidents.

However, there are a number of reasons why regulation might be considered as an alternative, or coincident, means of efficiently achieving optimal levels of safety in chemicals transport:

- Individuals and firms may systematically underestimate the risk of such incidents and the costs involved. In the extreme, firms that do not adequately insure could be bankrupted by very large claims.
- There may be considerable difficulty and expense in assessing the full costs imposed by a dangerous goods incident and significant uncertainty and expense in determining and enforcing liability through common law.
- The community has a high aversion to risk (possibly increasingly so), including placing high costs on death or serious injury. Government intervention may see this valuation more rapidly incorporated into firms' behaviour.
- There are likely to be high political consequences from significant dangerous goods accidents.

In addition, there are threats to public safety and national security from thefts of certain explosives, chemicals that could be used to manufacture explosives, and chemicals that are illicit drug precursors. Because the costs of such thefts may be

both widely dispersed and potentially catastrophic, reliance on common law as the only response would be problematic.

The mix of regulation and insurance is similar to that relating to the costs of passenger vehicle accidents. However, for regulation to be an efficient approach to dealing with the issues raised by chemical transport, it needs to be well targeted at specific areas where the benefits of intervention are greater than the costs.

7.2 The current regulatory framework

The transport of chemicals is subject both to generic regulations that cover all freight transport and, for certain chemicals, specific regulations relating to bulk dangerous goods, explosives, and security sensitive chemicals. Most generic heavy vehicle regulation, and the specific regulation of dangerous goods, has delivered nationally consistent outcomes due to a strong national governance framework. Policy is developed by an independent national body — the National Transport Commission (NTC) — reporting to the ministerial Australian Transport Council (ATC). The policy development process is highly consultative and the ATC’s majority decision-making rules when dealing with transport reforms, prevents single jurisdictions from stalling reforms.

Generic regulation of freight transport

In addition to the road laws applying to all motor vehicles, specific regulations and programs govern the transport of freight, including chemicals and plastics. These cover issues such as speed, fatigue management, vehicle roadworthiness, wearing of seat belts, load sizes, and compliance and enforcement. Much of this regulation aims to lower the risk of road accidents involving trucks and to reduce the severity of those accidents that do occur.

In Australia, heavy vehicles carrying generic freight are over represented in fatality and injury crashes compared to both light vehicles and to heavy vehicles in overseas countries, and the impact of those accidents on people and property can be particularly severe. In addition, heavy vehicles impose ‘amenity’ impacts on other road users and residents. These include noise, pollution and concerns for safety.

Some of the efforts to improve safety have involved a combination of regulation and cooperation between government and industry. For example, the National Heavy Vehicle Safety Action Plan, initially adopted by the ATC in 2003, has involved regulatory, enforcement and industry initiatives aimed at reducing accidents and fatalities involving heavy vehicles.

Some of these regulations are specific to individual jurisdictions, while others have been developed nationally under the reform agenda for road and rail transport, largely coordinated by the NTC. This national agenda has resulted in consistent heavy-vehicle regulation across jurisdictions in areas such as licensing, road rules, mass limits, noise standards, and roadworthiness standards.

Generic regulation of rail freight is largely imposed by jurisdiction-based coregulation, reflecting the long period of self regulation under government ownership and the much more concentrated ownership structure in rail freight operations. There has been substantial progress in developing nationally-uniform operating and safety regulations and practices, particularly under the auspices of the NTC. For example, a model Rail Safety Bill was developed by the NTC and implemented by individual jurisdictions by 2007.

Chemicals-specific regulation

As well as the policy issues raised by freight transport in general, the transport of chemicals imposes significant additional risks that have elicited specific regulatory responses.

Dangerous goods (land transport)

In order to reduce the risks to public and employee safety and the environment, specific, more stringent regulation has been developed for the land transport of goods classified as dangerous. This mirrors the special treatment given to dangerous goods in other areas such as manufacture, storage and waste disposal. These regulations aim to both reduce the risk of accidents involving vehicles carrying dangerous goods and lessen the consequences of those incidents that do occur.

Many of these dangerous goods are chemicals, although not all of these are covered by the terms of reference of this study.¹ There are also many chemicals that are not dangerous goods. Additional jurisdictional regulations apply to the transport of explosives, security sensitive substances, radioactive material and infectious (biohazardous) substances.

Dangerous goods transport governance arrangements

Since the early 1990s, development, initial implementation and review of dangerous goods land transport policy has been the responsibility of the NTC (originally the

¹ In particular, petroleum products are not covered by this study.

National Road Transport Commission (NRTC)). The NTC's main function is to develop, monitor and maintain uniform or nationally consistent regulatory and operational reforms relating to road, rail and intermodal transport. A number of features of its governance framework and mode of operation have created a strong sense of jurisdictional shared ownership of transport reforms.

The NTC is an independent, national statutory authority established by the Australian Government under an intergovernmental agreement (IGA) for land transport regulatory reform signed by Transport Ministers. It reports to the ATC and all jurisdictions contribute to NTC funding. Commission members are appointed by the Australian Government on nomination from the ATC. The NTC's budget, work program and strategic plan are all subject to ATC approval or input. The ATC generally meets biannually, with out-of-session processes (including voting on NTC proposed reforms) also used to progress issues.

To be implemented, legislative proposals put forward by the NTC must obtain a majority vote of the ATC. However, ministers cannot amend NTC recommendations. NRTC (2002) considered that formal majority decision making was particularly important in achieving national reform, as it prevented single jurisdictions from vetoing reforms and helped to develop ministerial and agency ownership of reforms. Similarly, Wilson and Moore (2006, pp. 282–83) argued that:

The requirement for a formal vote to take place is of significance, as it forces Ministers to make decisions on items forwarded by the Commission. It also ensures that 'lowest common denominator' solutions need not apply, as a mechanism is provided which enables impasses to be overcome.

The NTC process for developing and introducing regulatory reforms for dangerous goods transport involves extensive formal and informal consultation with jurisdictional authorities (including environment agencies), the trucking and chemicals industries and Australian Government policy makers.²

Under the IGA, each jurisdiction is then required to use its best endeavours to implement and maintain agreed reforms in a uniform or nationally consistent manner except in 'exceptional circumstances'. In such exceptional circumstances, the jurisdiction concerned is to advise the ATC of the reasons for its decision.

² Affleck and Meyrick (2002) noted that often one cost of this wide-ranging consultation was some delays in the implementation of reforms.

The unique policy development and implementation framework in which dangerous goods land transport regulations have been framed is an important factor in their success. In this regard, Affleck and Meyrick (2002, p. 17) argued:

The NRTC has been an outstanding and rare example of joint action by the Commonwealth, States and Territories to fix common problems of inconsistency, inefficiency and safety management. The role of industry in the processes facilitated by the Commission has also been very significant.

This framework has, up to now, delivered a high degree of national consistency in dangerous goods transport regulations, which has been well received by the chemicals and transport industries.

The achievement of uniform dangerous goods policy reform was also significantly assisted by its inclusion in the National Competition Policy Agreement. As a result, reform of dangerous goods policy (along with other road transport reforms) was part of the National Competition Council's assessment of jurisdictional performance for recommending competition payments.

In most jurisdictions, dangerous goods transport regulation is implemented by workplace health and safety authorities, which are also responsible for regulating the storage and use of dangerous goods in the workplace. Exceptions are New South Wales (environment), Queensland (transport) and Western Australia (resources safety).

A further forum for maintaining consistency between jurisdictions is the quarterly meetings of a Competent Authorities Panel (CAP), bringing together the dangerous goods land transport regulators (competent authorities under the dangerous goods Acts) from each jurisdiction, with the competent authorities for air and sea transport as observers. This panel issues approvals under the regulations, and exemptions from the regulations, and facilitates mutual recognition of decisions taken across jurisdictions.

The ATC is currently reviewing transport policy governance arrangements to broaden the scope of jurisdictional cooperation to include matters such as planning, infrastructure provision and pricing and to further enhance national regulatory cooperation and consistency. A new transport IGA is being developed and the use of Commonwealth Government financial contributions to assist in achieving national reforms is to be considered. In addition, a legislative review of the NTC is scheduled for 2008, in which broader issues relating to co-operative federal arrangements in the portfolio may be considered (NTC 2008).

The Australian Dangerous Goods Code

Land transport of dangerous goods is regulated under jurisdictional dangerous goods Acts and regulations. For road transport, since the late 1990s, this regulation has reflected Australian Government template legislation and regulations enacted to apply in the ACT and the Jervis Bay Territory. These templates have been adopted by individual jurisdictions either by direct reference or alternatively by repeating most of the provisions of the template in their own legislation.³ The absence of direct referencing in some jurisdictions has not led to additional inconsistency over time, because the template legislation has not been changed since its adoption.

These regulations brought into operation the Australian Code for the Transport of Dangerous Goods by Road and Rail Sixth Edition (ADG6), which sets out technical requirements as well as non-mandatory guidelines for the land transport of dangerous goods. Much of ADG6 is based on, or is consistent with, the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations (UN Model Regulations) (11th edition).

Reflecting this template approach, all jurisdictions require vehicles and drivers involved in the transport of dangerous goods in bulk to have special licences, involving approved specialised training and health assessment. There is also compulsory training for those undertaking other dangerous goods tasks. In addition, uniform regulations cover the securing of loads, packaging and labelling, signage on vehicles, design of tanks, safety equipment and types of loads. The transport of dangerous goods may be prohibited in certain areas (for example, the central business district and underground tunnels). Transport operators are also required to develop Transport Emergency Response Plans to be instigated in the event of an incident involving the transport of dangerous goods.

Revised jurisdictional dangerous goods legislation and regulations covering both road and rail and a new edition of the dangerous goods-code (ADG7) will take effect during 2008. The new regulatory framework involves a different approach to achieving national consistency. Model legislation (scheduled as regulations to the *National Transport Commission Act 2003* (Cwlth)) is provided to guide jurisdictions in developing their own legislation. The Model Act contains provisions that allow the appointment of competent authorities and authorised officers to administer the Act and establishes their powers. It also allows specified regulations to be made under the Act, establishes offences and sanctions, and allows competent authorities to make exemptions to the subordinate law. The Model Subordinate Law

³ The NRTC commissioned a barrister to ‘trawl through’ the various jurisdictional dangerous goods transport Acts and regulations (Shepherd 1999). He found that the legislation of each jurisdiction had the same or substantially the same effect as the template legislation.

(regulations) establishes the responsibilities of those transporting dangerous goods by road and rail in regard to matters such as licensing, packaging, labelling, placarding, stowage, documentation, insurance and emergency procedures. It also gives effect to the provisions of the ADG Code, which provides more detailed definitions and technical provisions on many of the matters covered by the regulations.

The new regulatory package was developed in order to more closely align Australian regulations with the most recent UN Model Regulations (fourteenth and fifteenth revised editions)⁴ and to establish a single set of regulations for road and rail. Alignment with the latest UN Model Regulations has created greater harmonisation of dangerous goods regulations for land, sea and air transport. The package has also implemented other changes considered necessary since the previous regulatory package was introduced in 1998. Provisions derived from the NTC's Model Compliance and Enforcement Bill have been included, thereby increasing the likelihood of achieving industry compliance.

Explosives (land transport)

The focus of dangerous goods transport regulations has essentially been on safety rather than security — the ADG Code does not contain detailed security provisions. However, for completeness and consistency with the UN Model Regulations, it includes limited provisions regarding transport of explosives when carried with other dangerous goods.

Instead, all jurisdictions have developed their own explosives legislation to address both the potentially very severe consequences of an accident involving explosives and the possibility of theft. To varying degrees, this legislation mandates compliance with some or all of the current Australian Code for the Transport of Explosives by Road and Rail (AEC).⁵

The AEC provides much of the technical detail of explosives transport regulations for road and rail. It contains more stringent safety requirements than the ADG Code and introduces security provisions. There are more demanding licensing requirements for both drivers and vehicles carrying explosives. Drivers must meet 'suitable person' criteria including a national criminal history and security check, undertake an approved course on explosives regulations, complete an approved

⁴ Some UN regulations are not incorporated in ADG7 and certain Australia-specific clauses are included, for example, excluding certain goods from the code in particular circumstances and some limited differences in packaging and labelling requirements.

⁵ Second edition (2000), including a 2003 security Addendum covering high-security risk loads of explosives.

health assessment and not have demonstrated unsafe driving behaviour. Vehicles and packaging must have enhanced security features.

The AEC was last fully updated in March 2000, after consultations with advice from regulators and industry through the Explosives Competent Authority Safety Sub-Committee and the Advisory Committee on the Transport of Dangerous Goods. That revision brought the AEC into line with the 11th edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations. However, explosives legislation is not harmonised between jurisdictions. A revised AEC is currently being developed.

Explosives transport governance arrangements

Unlike dangerous goods, there is no national model to guide jurisdictional explosives legislation and regulations for the land transport of explosives and there is no formal commitment by jurisdictions to implement the AEC uniformly. Hence, important regulatory differences remain. The Office of the Australian Safety and Compensation Council (OASCC), in its secretariat role for the Australian Forum of Explosives Regulators (AFER), is currently coordinating the updating of the AEC and a draft code was released for public comment in March 2008. The AEC review process also involves consultation with firms and industry bodies such as the Australian Explosives Industry and Safety Group (AEISG). A finalised version of the revised code is expected to be considered by the Workplace Relations Ministerial Council (WRMC) later in 2008.

The AFER comprises the explosives regulators from all jurisdictions (mostly workplace health and safety authorities) as well as the Australian Maritime Safety Authority (AMSA), the Civil Aviation Safety Authority (CASA) and the Defence Department. Unlike the CAP for dangerous goods transport regulation it is not a statutory body. It had not met for several years before September 2006 and now reports to the WRMC via the Australian Safety and Compensation Council. These reporting arrangements provide a potential mechanism for implementing AFER recommendations for nationally consistent regulation, including transport.

Security sensitive dangerous goods

More recently, the threats to national security from the misuse of what have been termed 'security sensitive' substances, has led to an agreed set of national principles, but has been implemented, in separate codes and regulations which contain more stringent licensing and other requirements for transporters. These goods are not regulated under the ADG7 package. These issues are discussed further in chapter 10.

Regulation of air transport of dangerous goods

Freight transport of dangerous goods by air in Australia is regulated by CASA under the *Civil Aviation Act 1988* (Cwlth) and part 92 of the Civil Aviation Safety Regulations 1998. The Act calls up the International Civil Aviation Organisation's (ICAO⁶) Technical Instructions for the Safe Transport of Dangerous Goods, which are currently based on the UN Model Regulations (14th edition). These regulations include packaging, labelling, handling, stowage and declaration requirements, as well as training courses for those accepting dangerous goods and for airline staff. The adoption of ADG7 will harmonise land transport regulations with those for sea and air (NTC, sub. 21).

Many airlines also adopt the International Air Transport Association dangerous goods regulations, which incorporate the ICAO standards and include some provisions that provide an even higher safety standard.

Regulation of sea transport of dangerous goods

The Australian Government is responsible for regulating interstate and international sea transport. Carriage of dangerous goods by sea is regulated by Marine Orders issued under the *Navigation Act 1912* (Cwlth), and administered by AMSA. There are generic requirements for all cargo and special Marine Orders for dangerous goods that implement the International Maritime Dangerous Goods Code. As with air transport, the sea transport regulations are based on the UN Model Regulations.

Self-regulation

The trucking and chemicals peak industry associations have both implemented programs to improve the safety and reliability of road freight transport (box 7.1). Explosives industry codes are referenced in explosives regulations. The NTC (sub. 21) suggested that, in view of the limited resources available to administrators for regulating the use and transport of dangerous goods, greater resort to industry self-management may be appropriate to improve regulatory outcomes.

⁶ The ICAO was established in 1944 by an international intergovernmental agreement aimed at developing international civil aviation in a safe and orderly manner.

7.3 Assessment of current regulations

This section considers how effective chemicals transport regulation has been in achieving its objectives and the efficiency of the development and implementation of the regulatory regime.

Effectiveness

Section 3 of the Model Act on the Transport of Dangerous Goods by Road or Rail 2007 states that the purpose of the Act is to ‘regulate the transport of dangerous goods by road and rail in order to promote public safety and protect property and the environment’. The effectiveness of the processes can be gauged indirectly, by assessing reductions in both the number of dangerous goods accidents and the severity of the outcomes from those accidents.

Box 7.1 Self-regulation of chemicals and plastics transport

TruckSafe (Australian Trucking Association)

The Australian Trucking Association has developed an industry accreditation programme to assist trucking firms to operate safely and professionally, and to signal to road freight users that the firms meet certain standards in these areas. TruckSafe includes systems and standards for vehicle maintenance, workplace and driver health (including fatigue management) and training. There is an auditing requirement for firms to obtain and retain TruckSafe accreditation.

Carrier Accreditation Scheme (Plastics and Chemicals Industries Association)

In 2001 the Plastics and Chemicals Industries Association (PACIA) introduced the Carrier Accreditation Scheme in order to improve the safety performance of chemicals transport and specifically to reduce the costs to industry of complying with PACIA’s Responsible Carrier Storage and Transport Safety Code. Carriers self assess their operations and performance and this is then verified by an auditor before accreditation is given. Chemical companies are advised which carriers are accredited. The scheme obviates the need for individual chemical companies to undertake comprehensive audits on all potential carriers. Since 2005, the auditing processes for the Carrier Accreditation Scheme and TruckSafe have been mutually recognised.

Explosives

The Australian Explosives Industry and Safety Group has developed a number of codes of practice for the explosives industry — including one covering transport of explosives in mobile processing units — which jurisdictions refer to in their explosives regulations.

Sources: ATA (nd); PACIA (nd).

Regulations to reduce the risks of dangerous goods transport have operated for many years — at the national level the first edition of the ADG Code was published in 1980. Hence, it is now more difficult to empirically assess outcomes under regulation with those that might have occurred if the regulation did not exist. Nonetheless, the NTC estimated that around 10 to 15 per cent of heavy vehicles carry dangerous goods (including explosives), while in 2000, fatalities involving dangerous goods vehicles were less than 1 per cent of the total for all heavy vehicles (NTC 2005, appendix B). This indicates a substantially superior safety performance for dangerous goods vehicles relative to other heavy vehicles with likely associated savings in personal, property and environmental harm. NTC (2006b, p. 1) noted that there have been few major incidents involving dangerous goods transport in recent years. It argued that:

This is to a large extent explained by the transport industry having embraced the various editions of the Australian Dangerous Goods Code published since 1980.

Significant improvements in heavy vehicle safety have been observed over the last 20 years. For example, the number of fatalities from heavy articulated vehicle accidents has fallen by around one third since 1991 (ATSB 2007). Because there has been a large increase in kilometres travelled, fatalities per kilometre would have fallen significantly more than this. This reflects a wide range of factors, including general road safety programs and those targeted at heavy vehicles, as well as safety gains flowing from transport infrastructure investment. Accordingly, it would be difficult to attribute any improvements in dangerous goods safety outcomes directly to changes to dangerous goods regulations over that time.

For the ADG7 package, the NTC (2005) estimated safety benefits of \$5 million per annum as a result of reduced incidents and accidents flowing from assumed increased industry compliance.

Efficiency

There are several indicators of efficiency in chemicals transport regulation. At the aggregate level, Affleck and Meyrick (2002) reported estimates of net benefits from road transport reform under the NRTC until 2003 of \$400 million. McIntyre and Moore (2001, p. 7) observed that dangerous goods laws (the ADG6 package) were widely regarded as one of the ‘more successful of the Commission’s legislative outputs’. This suggests that national reform of dangerous goods transport regulation has delivered substantial net benefits through improved efficiency.

In moving to the ADG7 package, the NTC lists a number of benefits to industry, particularly from greater international and intermodal harmonisation of the regulations, and a greater ability to transport small quantities of dangerous goods

under an exemption from the ADG Code. The NTC (2005, p. 27) noted that these benefits were diffuse and intangible and that ‘due to the range of industries and substances involved it is difficult to provide quantitative estimates of these savings’.

There are also costs (for example, staff training) for firms adjusting to the new regulations. The NTC indicated that it could not quantify these costs. It argued that, in any event, training should be ongoing for employees of bulk dangerous goods distributors, hence not all training costs of introducing the new system should be seen as additional to ongoing requirements. The provision of a transition period, including the extension of existing exemptions provided under ADG6, should also reduce costs for regulated firms in moving to ADG7.

The support for the package from industry suggests that anticipated benefits to them from the package as a whole are expected to be greater than the costs.

The NTC estimated that various one-off documentation and training costs to government of introducing the reform package would be at least \$10.4 million, with ongoing maintenance costs of \$150 000 per year. This compares to the estimated ongoing additional safety benefits of \$5 million per year.

Interjurisdictional consistency

Because freight transport (including chemicals) regularly involves interjurisdictional journeys, a seamless regulatory environment is particularly important, especially in enabling efficient operations and reducing compliance costs. Wilson and Moore (2006, p. 279) noted the costs of previous inconsistencies:

The situation for heavy transport trying to run an efficient interstate operation became so intolerable in the late 1980s that major road blockades were initiated, as well as other forms of protest. Regulatory disparities that rendered drivers and operators illegal as borders were crossed made the conduct of interstate trucking operations in Australia unnecessarily difficult.

National reforms to the regulation of dangerous goods land transport introduced in 1998 (ADG6) have achieved substantial national uniformity and have generally received the endorsement of the chemicals and trucking industries. For ADG6, the Plastics and Chemicals Industries Association (PACIA, sub. 33, attachment 5, p. 27) noted that ‘the outcome of the process in states and territories was extremely encouraging’.

There has been no indication that national uniformity has been achieved at the expense of good regulation, possibly reflecting the highly effective and cooperative governance arrangements surrounding policy development and implementation —

although this is not to say that existing national regulations cannot be further improved.

In principle, a high degree of national consistency could be continued under the new ADG7 package. However, industry is concerned that the new model legislation approach may see greater diversity between jurisdictions. While the ADG Code of technical requirements is likely to be implemented more or less uniformly, there is much greater potential for the jurisdictions to adopt the model legislation and regulations inconsistently or to include additional measures. For example, PACIA (sub. 33) noted that Western Australia intends to vary its regulations to introduce the approval of persons and entities that can respond to transport emergencies, even though this measure was not considered for inclusion in the ADG7 regulatory package. COAG (2008d) has now agreed to nationally consistent implementation of ADG7 and directed that the regulatory package be implemented by December 2008.

Also, compared to the ADG6 package, there is currently no indication that Australian Government financial incentive payments will be available, thus lessening the impetus for uniform implementation.

Relative to dangerous goods regulation, there is greater national variation in explosives transport regulation and this has imposed unnecessary costs on industry. Each jurisdiction has independently developed its own legislation and regulations, and implementation of the AEC is not totally uniform. The AEISG (sub. 63) noted costs created by differences in regulation between jurisdictions, such as requirements in some jurisdictions for seven days notice of the transport of explosives into the jurisdiction. It commented:

The existence of multiple regulatory regimes with different treatment of explosives across the country creates barriers in achieving the maximum efficiencies, and in many cases, creates specific, expensive inefficiencies. (sub. 63, p. 1)

Other interjurisdictional regulatory differences include external signage requirements, restrictions on joint carriage of explosives and detonators, products defined as explosives and licensing regimes for trucks and drivers. The AEISG noted that these additional regulatory costs are particularly onerous because the mining industry's global competitors generally did not face multiple regulatory regimes.

Consistency between jurisdictions for dangerous goods and explosives driving licences has been enhanced by the COAG Skills Recognition Steering Committee achieving agreement for mutual recognition of these licences between jurisdictions by the end of 2008 (COAG 2008b).

Regulation of international and interjurisdictional air and sea transport is undertaken nationally and hence is uniform between jurisdictions.

Consistency between transport modes and international compatibility

The alignment of land transport regulations with the UN Model Regulations, on which air and sea transport regulations are based, has significantly increased the compatibility of dangerous goods transport regulations across modes. Intermodal consistency has been further enhanced by the ADG7 package setting out a single set of regulations for both road and rail. PACIA commented on the increase in intermodal and international uniformity:

This will leave Australian industry well placed to move dangerous goods around Australia and the world more efficiently and safely. (sub. 33, attachment 5, p. 28)

Nonetheless, the costs and benefits will not be distributed evenly across affected sectors. In arguing for government contributions toward adjustment costs for the new package, the Australian Trucking Association (ATA, 2005, p. 2) argued:

The approximately 100 to 150 small, medium and large [dangerous goods transport] operators in Australia will be the losers of this proposal. That is, compliance with the new code and supporting legislation and regulation will accrue little to no net benefit to the industry with 'others' (importers and exporters for example) deriving the primary benefits.

However, if sufficient benefits accrue to the chemicals industry from the package, they should be in a position to absorb some increase in transport charges arising from any higher costs incurred by the transport distribution sector in implementing ADG7.

Australian regulations for air and sea transport of dangerous goods have already been established nationally and are closely aligned with international requirements. The linking of the new land transport regulatory framework to the most recent UN Model Regulations achieves a similar outcome. However, some Australia-specific provisions remain. For example, certain emergency information panel requirements not contained in the UN Model Regulations have been retained in ADG7 to assist emergency services responses to accidents (NTC 2007, p. G14). These will impose some additional costs on exporters and importers of dangerous goods but might provide offsetting benefits in terms of better emergency responses. ACCORD Australasia (sub. DR91) noted departures from the UN Model Regulations in ADG7 for inner package labelling and exemptions of limited quantity loads from dangerous goods regulation, which would lead to higher labelling costs for the consumer goods and cosmetics industry.

Policy development and administration

Much of dangerous goods transport policy is developed centrally by the NTC, in close consultation with jurisdictional authorities and industry. Proposed changes are submitted for approval to the ATC. This model of policy development offers potential cost savings by limiting duplication of effort across jurisdictions.⁷ However, if there were significant jurisdiction-specific issues, local knowledge and proximity to local decision makers would be important, and would need to be incorporated into the national framework to avoid detracting from the cost advantages of a single regime.

The transport of dangerous goods and explosives raises a number of policy issues — public safety (particularly road safety), OHS, damage to the environment, and national security — that cut across the responsibilities of a number of policy making and regulatory agencies at the national and jurisdictional levels. Hence, there is no simple administrative arrangement for developing and implementing policy — it needs to build on the underlying jurisdictional structures.

Currently, at the national level, dangerous goods transport policy has been successfully developed in a transport ministers' forum (ATC). However, with the exception of Queensland, administration of dangerous goods transport policy is not the responsibility of jurisdictional transport departments. In most cases, OHS regulators are responsible for dangerous goods (including transport), reflecting the potential workplace safety risks posed by the production, storage and use of such goods as well as the fact that a truck is a workplace. The NTC (sub. 21) noted some additional costs and complexity to government from transport departments having to inform and consult other departments in developing national reforms, and to industry in dealing with multiple regulators.

The implementation of the Commission's recommended Standing Committee on Chemicals (SCOC) (chapter 3) would facilitate cross-portfolio coordination generally and hence should assist the further development of regulations governing the transport of chemicals.

⁷ In some other areas of transport policy, individual jurisdictions have been appointed as 'lead agencies' in developing national policy. This approach further increases the input of jurisdictional regulators with practical experience of the operation of regulations, while maintaining the advantages of scale economies in developing detailed policy proposals.

7.4 Options for reform

Although the regulation of dangerous goods transport has generally been successfully developed and implemented over the last decade, several process and governance issues still need to be addressed. In addition, important jurisdictional differences remain in the regulation of explosives transport.

Template or model legislation

As noted above, the new dangerous goods regulatory package involves a different approach to achieving consistency of legislation and regulations across jurisdictions. Rather than the Australian Government passing template legislation and regulations that the jurisdictions can adopt by reference or copy into their own legislation, model legislation is attached to the NTC Act, but has no operational effect. Individual jurisdictions can then develop their own legislation based on the provisions of the model legislation, or reference the model act. The NTC (sub. 21) indicated that most jurisdictions intend to implement the model legislation under their omnibus OHS legislation rather than amend current dangerous goods Acts.

The switch towards model legislation in delivering national transport reform (including dangerous goods) had been mooted quite early in the NRTC's existence, because of the time taken to achieve agreement for template legislation. Shepherd (1999) considered that further road transport reform was likely to be delivered in model legislation form in order to speed up the reform process. McIntyre and Moore (2001) argued that although, in principle, model laws are not as effective as template, in practice they may work as well. The formal review of the NRTC Act (Affleck and Meyrick 2002) recommended that model legislation replace template legislation for delivering land transport legislative reforms.

There are several reasons for using model legislation, including arguments that suggest its use might not substantially reduce uniformity.

While template legislation was used to implement ADG6, not all jurisdictions directly referenced the Commonwealth template in their own Acts. For these jurisdictions the Commonwealth Act was effectively model legislation that they used to draft their own legislation.⁸

In principle, model legislation and regulations could produce largely uniform outcomes. The NTC (2006a) suggested that direct referencing of the model could be

⁸ While in practice only four jurisdictions (including the ACT) adopted the 1990s reforms in pure template form, the others largely adopted it by copying provisions into their legislation.

more timely and cost effective for jurisdictions than rewriting it into state-based legislation. The NTC (2007) expected that, as with ADG6, the states and territories would either directly reference the model legislation, or incorporate it into their own legislation and regulations.

In addition, the model legislation approach was specifically written into the IGA and the Act establishing the NTC. It has been used in recent years to introduce regulations in areas such as heavy vehicle driver fatigue, rail safety and the intelligent access program for heavy vehicles. The jurisdictions — through the ATC — supported its use for dangerous goods regulation.

There are also arguments for favouring template legislation. In particular, it minimises differences in style, interpretation and content in the drafting of legislation by the individual jurisdictions. Even if effective outcomes are similar, different wordings between jurisdictions under model legislation can create unnecessary uncertainty for those trying to understand and conform with the regulations. Also, future changes are more easily incorporated if template legislation is directly referenced by jurisdictions.

A number of participants have expressed concern about the impact of the shift from largely uniform legislation. Both ACCORD (sub. DR91) and the ATA (2005) noted the critical importance of jurisdictional consistency for efficient transport operations and were concerned that model legislation left greater scope for differences between jurisdictions. The ATA commented:

Given the inherent nature of trucking operations, non-uniformity often leads to high compliance costs, lower profitability and can lead to operational and legal uncertainty ...

Whilst it remains to be seen whether jurisdictions will adopt the drafted model legislation and regulation uniformly, precedent would suggest that it is unlikely (Compliance and Enforcement legislation is a case in point). (ATA 2005, p. 1)

The ATA argued that the use of model legislation had led to inconsistencies in fatigue management regulation.

The state premiers and chief ministers all agreed that uniform fatigue management laws were needed. The National Transport Commission ... went ahead and prepared a model text, but the states and territories are now pressing ahead with their own, inconsistent versions. (sub. DR102, p. 1)

The AEISG (sub. DR94, p. 4) expressed similar concerns based on its members' 'adverse experiences' with SSAN and major hazard facilities regulations. PACIA (sub. 2) indicated satisfaction with the consistent outcomes achieved when implementing ADG6 by template legislation supported by National Competition Policy incentive payments.

Under either approach there are mechanisms that will assist in maintaining national uniformity in transport reforms. The ADG7 package was approved as an ‘Agreed Reform’ by a unanimous vote of the ATC and, under the IGA, all jurisdictions have agreed to use their best endeavours to implement and maintain Agreed Reforms in a uniform or nationally consistent manner. If a jurisdiction does not intend to implement Agreed Reforms, or intends to implement them with changes, it must notify the NTC and ATC, providing reasons for these variations. In addition, COAG (2008d) has now endorsed nationally consistent implementation of the ADG7 package. Hence, there is considerable formal impetus for achieving nationally consistent reforms.

In addition, the detailed technical regulations (ADG Code) should be almost totally uniform across all jurisdictions and this may be the most critical element of the regulatory package in determining compliance costs. Also, the CAP is another forum for maintaining national consistency of outcomes.

The model regulations and ADG7 Code have been under development for several years and implementation of the package is well advanced. In these circumstances, and in the absence of compelling evidence of significantly inferior outcomes, it is not practicable to consider reversion to template legislation.

The Victorian Government (sub. DR112, p. 14) noted that, by necessity, the NTC’s model law will be ‘adopted in a different manner in each jurisdiction’. Nonetheless, even if the exact form and wording of legislation varies somewhat, it is important that jurisdictions comply with their IGA commitments to implement reforms in a uniform or nationally consistent manner. This would involve uniform adoption and implementation of the ADG Code and achievement of equivalent regulatory outcomes from their specific legislation and regulations.

In this regard, in its draft report the Commission recommended that jurisdictions consistently adopt the model act and regulations and uniformly reference the new ADG Code. COAG has now adopted the intent of this recommendation by resolving that it:

... agrees to the nationally consistent implementation by all jurisdictions of the 7th edition of Australian Dangerous Goods Code and attendant regulations within a 12 month period, and directs that all jurisdictions are to adopt the Code and supporting legislation and regulation by December 2008 and directs the Australian Transport Council to report its completion to the December 2008 COAG meeting. (COAG 2008d, p. 1)

This effectively reaffirms COAG’s 1995 commitment (which was then part of a much broader economic reform agenda) to achieving the benefits of nationally consistent regulation of dangerous goods transport.

PACIA (sub. DR101) argued for a 12-month transition period during which both ADG6 and ADG7 would coexist, as was the case when ADG6 was introduced. The Victorian Government (sub. DR112) was similarly concerned about the implications of a possible short (six-month) transition period. Given the delays and uncertainty surrounding the introduction of the new Code and the move to model legislation, the Commission considers a 12-month transition period is appropriate. This period should commence after fulfilment of the COAG (2008d) directive for jurisdictional implementation of the ADG7 package by December 2008.

Given the level of industry concern regarding the potential for greater interjurisdictional inconsistency under model legislation, the requirement under the IGA for the NTC to maintain and review 'Agreed Reforms' is particularly important. With its expertise in developing and implementing national transport reform, the NTC is well placed to undertake evaluations of transport reforms. However, some conflicts of interest could be involved in an NTC review in this case. The NTC will need to continue working on future reforms to dangerous goods regulations with the jurisdictional administrations it is evaluating. Further, the NTC's role in introducing ADG7 has been criticised by some participants in this study and the outcome of the review could reflect on the NTC's performance,

In view of this, the Commission considers that the IGA review of the ADG7 package should be independent and should involve public submissions and the publication of the evaluation report.

RECOMMENDATION 7.1

The Australian Transport Council should commission an independent public assessment of the consistency with which the Australian Dangerous Goods Code is adopted by jurisdictions, and of the regulatory outcomes produced by their implementation of the associated legislation and regulations. The review should commence not later than twelve months after the reforms have been implemented by all jurisdictions.

Responsibility for national policy development and oversight

While the NTC has primary responsibility for developing national dangerous goods land transport regulations, in most jurisdictions responsibility for implementing them resides with OHS regulators. Hence, the NTC has argued that policy development would be better undertaken by an organisation operating in the workplace policy area:

To maintain the current arrangements hampers expeditious and responsive reform (given the necessity for a transport reform body to coordinate non-transport agencies

under the governance of a Ministerial transport council) and imposes considerable and avoidable burden on regulators. (sub. 21, pp. 5–6)

There are arguments for transferring national responsibility to a workplace policy governance arrangement under the WRMC:

- Currently, jurisdictional transport ministers respond to and ratify proposed changes to dangerous goods policy at the ATC, but in most cases they need to seek advice from their jurisdictional OHS departments and authorities that are responsible for implementing dangerous goods transport regulations.
- Transferring responsibility for developing risk-management standards to a body which also develops OHS standards might also further improve the coordination of regulation on packaging and labelling between the workplace and transport.
- Many of the activities regulated by ADG7 (packing, labelling and loading) are undertaken outside the on-road transport sector.
- A truck and related loading/unloading facilities are a workplace and hence are already subject to the OHS regulatory framework.
- The AEC is currently being revised by the OASCC.

However, there are also reasons for retaining dangerous goods transport policy with the NTC:

- The main focus of dangerous goods transport regulation is community and environmental safety during the transport journey, rather than workplace matters.
- It would be desirable to retain a number of features of the transport institutional structure which have contributed to effective and efficient regulatory outcomes. These include: the focus on uniformity; the formal review function of the NTC; the forums for the chemicals and transport industries and other interested parties to have input into both policy development and the ongoing review of regulatory performance; and the operation of the CAP. Also, there is a strong IGA for land transport regulatory reform, and the majority decision making rules when ATC considers such reforms assist in achieving efficient and consistent outcomes. It would be difficult to recreate in another regulatory environment both the forums and culture for achieving national uniformity that has existed in transport regulation.
- The NTC's expertise in general transport regulation would not be as easily accessible if responsibility was shifted to a workplace regulator.
- The NTC has a long history of using a wide range of different approaches to developing transport policy reform, most involving significant consultation, in

some cases outside the transport field (for example, with environmental and OHS regulators and interest groups).

- Placing national transport regulation into the much larger field of OHS regulation, and its associated tripartite governance structure, might result in some loss of focus on transport issues. Transport groups may be concerned about potentially reduced access to the policy-making body.
- Australian Government policy development and international discussions on dangerous goods transport regulations are the Department of Infrastructure, Transport, Regional Development and Local Government's responsibility. That department also provides secretariat support to the ATC and the CAP.

Several major industry associations — the ATA (sub. DR102), PACIA (sub. DR101), the AEISG (sub. DR94), ACCORD Australasia (sub. DR91) and the Australian Paint Manufacturers Federation (sub. DR98) — have supported the continuation of the NTC's role in this field. At the government level, New South Wales favoured retention with the NTC, while the SA Government (sub. DR110) argued for continued development by the NTC or another federal transport agency. ACCORD Australasia argued:

The NTC is Australia's premier transport authority and as such should continue to have responsibility for all aspects of transport within a national transport system. (sub. DR91, p. 21)

Conversely, some participants — including the Australasian Railways Association (sub. DR95) and Wacker Chemicals (sub. DR86) — have argued that policy development should be shifted to the OHS arena. They considered that the development of ADG7 had been too protracted and felt that the NTC now lacked dangerous goods expertise.

The NTC, in response to the Commission's draft recommendation that policy development responsibility remain with it, commented:

... this draft recommendation emphasises the procedural strength and capacity of governance arrangements of transport reform at the expense of the subject matter. (sub. DR90, p. 1)

The Victorian Government argued that:

Significant efficiencies in the administration and maintenance of DG [dangerous goods] transport, hazardous substances and dangerous goods storage and handling legislative schemes are available through consolidation of oversight under WRMC. (sub. DR 112, p. 15)

There appear to be some benefits in the Australian context of having a single national expert body that develops work safety and transport safety risk

management standards. However, there are also transport issues involved in the dangerous goods regulatory framework and national uniformity is very important for the transport industry. Significant cross-portfolio coordination will be necessary, regardless of where the ADG Code is located — a task that would be facilitated by the creation of SCOC (chapter 3).

In addition, the development and implementation of nationally uniform transport policy — including the introduction of ADG6 — under the NTC framework has generally been very successful. There has been some criticism of the process and outcomes in developing the ADG7 package (for example, ACCORD Australasia (sub. DR91), Tasmanian Government (sub. DR107), SA Government (sub. DR110)), Nonetheless, in submissions to this study, there has been general industry support for continued NTC oversight and the impetus for achieving efficient national uniformity is particularly strong in the transport arena. As noted above, further broadening and strengthening of transport governance arrangements has been proposed (NTC 2008).

In contrast, as discussed in chapter 6, attempts to introduce nationally-uniform OHS policy have taken considerable time with limited success. However, significantly different governance arrangements are now proposed for the development of national workplace safety policies (COAG 2008c). While these changes appear to significantly strengthen the framework for achieving nationally agreed policies, several aspects still leave cause for concern (chapter 6). If and when the new governance arrangements are successful in progressing the implementation of efficient and nationally consistent OHS policy, the issue of transferring responsibility for national dangerous goods transport policy could be reconsidered. Any such consideration should involve a public process and be cognisant of the preferences of a number of participants to this inquiry for continued oversight in the transport forum.

The NTC (and the NRTC before it) has traditionally been a tightly-resourced organisation, and one which has been innovative in attracting funding and resources to undertake its work program. In reviewing the NRTC's performance, Affleck and Meyrick (2002, p. 22) noted that:

The pace of reform has disappointed some stakeholders, and could be improved with more resourcing of NRTC and jurisdictions responsible for implementation, but is reasonable in the circumstances.

Affleck and Meyrick (2002) noted the increased demands placed on the NTC's resources by the need to maintain the growing body of national transport regulation as well as developing new reforms. To the extent that the development and ongoing maintenance of dangerous goods regulation places unnecessary strain on the NTC's

resources, this should be addressed by the ATC in the context of the scheduled legislative review of the NTC in 2008.

RECOMMENDATION 7.2

Responsibility for policy development and monitoring should remain with the National Transport Commission, reporting to the Australian Transport Council.

Once proposed revised governance arrangements have become operational in the transport and workplace relations arenas, the Australian Transport Council should undertake a public review, involving consultation with all stakeholders and including consideration of necessary funding, to determine the most appropriate forum for developing and implementing future national dangerous goods transport policy.

Explosives regulation

Important differences in jurisdictional regulation of explosives transport are imposing unnecessary costs on industry. The AEISG noted the need for resource mobility and flexibility in mining — the main client of the explosives industry — but argued that this flexibility was being hindered by differing jurisdictional regulatory regimes for explosives. It commented:

The removal of these multiple regulatory barriers, which can be achieved by streamlined and consistent legislation and regulation without usurping States rights, will enable real and significant benefits to flow through to the community as a whole by assisting in maximising the productivity potential of the mining sector. (sub. 63, p. 1)

The Australian Explosives Transport Safety and Security Group (sub. DR82) noted costs imposed by some jurisdictions requiring seven days' formal notice of transport of explosives into their territory and South Australia's disallowance of mixed loads of detonators and packaged explosives, which requires either running two vehicles or detouring via the Northern Territory. The AEISG (sub. DR94) pointed out that considerable compliance costs and inconvenience were imposed on importers by Australian-specific packaging and labelling requirements which differed from international regulations.

The AFER could provide a potential forum for resolving some interjurisdictional differences, but until recently it had only been meeting intermittently and it is not a statutory body. The AEISG (sub. 63) noted that informal networking between regulators had delivered some degree of consistency, but considered that this was not an efficient regulatory mechanism. In this regard, it argued for an expert explosives regulatory body similar to the CAP in dangerous goods.

The AEC is currently being updated (AEC3) under the auspices of the WRMC, with the objective ‘to improve the current safety and security levels for the transport of explosives in Australia and to enhance the level of consistency in explosives regulation across jurisdictions’ (AFER 2008, p. 9). However, the supporting legislation and regulations are not being harmonised and there is currently no framework for ensuring legislative consistency between jurisdictions or that the AEC is applied uniformly.

In its draft report, the Commission recommended that the AEC review be expanded to include associated legislation and regulations. However, the review of the AEC is now well advanced, with a revised code likely to be approved by the WRMC by the end of 2008. Several participants (AEISG (sub. DR94) and the Queensland Government (sub. DR121)) argued that it was important to complete the consistent national adoption of AEC3, and this should not be delayed pending a review of the legislation and regulations. The Commission concurs with this view — expeditious and effective completion of the current AEC review offers significant benefits to industry.

The Department of Education Employment and Workplace Relations (sub. DR96) indicated that the AFER was considering a further review to harmonise explosives legislation. In this regard, the AEISG (sub. DR94) considered that not all necessary changes to the AEC would be achieved in the current AEC3 process and that further revisions would be appropriate when the legislation was reviewed. The Department of Consumer and Employment Protection (WA) (sub. DR114, p. 2) noted that a review of the explosives transport regulatory framework should also consider ‘the baseline level of regulatory intervention’.

The long period since the last review and the extent of current interjurisdictional regulatory anomalies suggest that the current review may not lead to complete consistency in the application of AEC3. In this event, a further updating of the code in conjunction with the proposed review of explosives transport legislation would be appropriate, with a focus on assessing the merit of existing regulatory interventions and establishing mechanisms that can efficiently and speedily deal with specific regulatory issues as they arise.

Combining the dangerous goods and explosives codes

The NTC (sub. 21) argued that there are benefits of regulatory consistency in amalgamating the development of the dangerous goods and explosives codes into a combined code to be administered in the workplace safety regulatory environment. The Australasian Railways Association (sub. DR95, p. 12) noted that lack of harmonisation of the two codes was a ‘severe impediment to efficient interstate

transport of explosives by our members'. The AEISG (sub. DR94) supported, in principle, the inclusion of the AEC as a separate volume of the ADG Code. The Queensland Government (sub. DR121) supported continued parallel revisions of the two codes, but considered that in the longer term, while amalgamation was feasible, the resultant significantly larger and more complex code may not necessarily benefit industry.

The SA Government (sub. DR110) argued that, because of the potentially high consequences of an explosives accident, explosives regulation will have a different focus to, and should be separate from, dangerous goods regulation. However, separate treatment of explosives within an integrated dangerous goods regulatory package, supported by rigorous RISs, would appear to offer the potential for avoiding the unnecessary costs of separate regimes, while retaining appropriate explosives-specific provisions.

That said, in view of the achievement of nationally consistent dangerous goods transport regulations, combining their policy development with the more problematic explosives regulations may place these benefits at risk at this time. Improved governance arrangements and more nationally consistent regulatory outcomes in explosives transport regulation are needed before an amalgamation with dangerous goods would be prudent. The potential benefits of such an amalgamation further emphasise the importance of the current review of the AEC, and the Commission's proposed review of the entire explosives transport regulatory framework, delivering consistency between jurisdictions. If this consistency is achieved, the ATC and WRMC should examine the merits of amalgamating the regulation of dangerous goods and explosives transport.

RECOMMENDATION 7.3

The current review of the Australian Explosives Code by the Australian Forum of Explosives Regulators (AFER) should be completed as expeditiously as possible to produce uniform regulations that are adopted and consistently applied by all jurisdictions.

The AFER should then immediately undertake a review of jurisdictional legislation and regulations for explosives transport, with the aim of achieving nationally consistent legislation and regulations to complement the uniformly adopted technical code. Any technical code issues not adequately resolved in the current review of the Australian Explosives Code (AEC3), should also be considered.

Other issues

The NTC (2006a) has indicated that some policy issues were not considered in ADG7 in the interest of developing and obtaining approval for the significant structural, content and enforcement changes that were eventually implemented. The NTC (2006a, summary) commented:

This is primarily a revision exercise. The intention is not to make major changes to underlying policy on the transport of dangerous goods but to update the Code and the supporting regulatory framework.

One such policy issue is the absence of a national training package for the various regulatory requirements and licences under ADG7. For example, the Victorian Workcover Authority (2005) considered that a national program of accrediting training providers and training could have been included in the ADG7 package.

The NTC (2006a) considered that training policy was outside the scope of the ADG7 exercise, but indicated that it might be addressed in future work programs. In addition, the NTC indicated that some issues raised by industry or regulators that would involve variations in the UN Model Regulations will be raised for discussion at the UN level.

At the more general level, the NTC (sub. 21) has suggested that the absence of a mechanism for linking with international regulations may result in the regulatory framework lagging behind international best practice. PACIA (sub. 33) also expressed concern about future uniformity with UN Model Regulations.

A major benefit of the ADG7 package is establishing consistency with the current UN Model Regulations, on which the regulations of many other countries and Australian air and sea regulations are based. It will be necessary to quickly and easily revise the ADG Code in line with the UN's approximately two-yearly revision cycle if these benefits are to be fully maintained.

Charges for purchasing regulatory codes

The cost of purchasing the new ADG Code is not insignificant (\$140 hard copy and \$120 CD-ROM), particularly when organisations require multiple copies. The AEC (second edition) costs \$90. However, electronic copies of supplements to ADG6 and an addendum to the AEC are free on the internet. Web-based versions of the Model Legislation and Regulations are also free, as is the legislation of all jurisdictions.

PACIA (2006b, p. 3) argued that higher levels of compliance would be achieved by making the technical details available at low cost:

... if high levels of compliance are to be achieved then dangerous goods information and requirements must be available in formats that assist users and be freely available. In this regard, the Government must demonstrate its commitment through making web-based versions of ADG7 available free-of-charge to all users and the community.

In this regard, Underwood and Hunt (2007) undertook a survey of members of the Australian Institute of Dangerous Goods Consultants concerning dangerous goods regulations. The survey indicated that, particularly among small to medium-sized clients, there was a considerable lack of knowledge and non-compliance with key requirements of the revised New South Wales regulations.

Haztech Environmental (sub. DR73) argued that many small companies refrained from purchasing the ADG Code and that cheaper availability of the Code would facilitate better compliance by such firms. The Queensland Government (sub. DR121, p. 19) noted that 'OHS standards and codes are freely available in Queensland in an effort to increase and improve compliance with regulatory requirements'.

The NTC (2006a, p. 50) indicated that development of the ADG Code was partly funded by revenue from sales of the Code:

The time and resources required, in this instance, to update the Code and model legislation has dictated that the 7th Edition of the Code is made available on a cost recovery basis since NTC funding is limited. The 7th Edition will be made available at an affordable cost equivalent with other model codes of a similar nature. Since the same amount of effort should not be required for future editions the NTC may consider making these available free of charge.

However, the Commission has previously argued that the costs of policy development activities should not be recovered directly from users:

It is important that these 'higher level' Government policy activities maintain both the appearance and reality of independence and accountability to Government. Recovering the costs of such activities from industry may compromise that independence. (PC 2001, p. 158)

In addition, in order to facilitate the high compliance needed to meet the objectives of regulatory standards and codes, they need to be readily available at low cost. The Commission has also previously argued (PC 2001, 2004b, 2006d) that as a principle of good regulation, legislative requirements (including associated codes and standards) imposing obligations should be readily available to those affected.

The NTC (sub. DR90) noted that it has contractual obligations for the sale of ADG7 and that these could be costly to renegotiate. To the extent that reasonable

compensation for existing distributors can be readily negotiated, the Commission favours immediate switching to avoidable cost pricing for the ADG Code. However, if compensation payments (including negotiation costs) are excessive compared to the potential benefits of greater access to the ADG Code, a change in pricing policy should be deferred.

The new AEC, for which no such contractual relationships or funding commitments have been made, should be available at avoidable cost.

Net revenue from sales of the ADG Code goes to the NTC, which had anticipated revenue in excess of \$300 000 from sales of ADG7 (sub. DR90). To avoid inhibiting the NTC's reform program, revenue losses from implementing avoidable cost pricing, as well as any compensation payments to the contracted distributor of the code, would need to be made up by additional jurisdictional contributions. The SA Government (sub. DR110) indicated that it would be unwilling to increase its NTC contributions, as it did not provide free hard copies of its own legislation. However, the Commission is recommending free provision only on the internet, with other mediums being provided at avoidable cost.

In its draft report the Commission recommended that the ADG Code be available free on the internet and at avoidable cost for hard copies. COAG (2008d) has now agreed that ADG7 be made available free on the internet by December 2008 .

The Commission considers that there are regulatory benefits in making other mediums for purchasing the Code — such as hard copy or CD — available at avoidable cost of production and distribution. However, it is also important that the NTC's work program not be disrupted by the funding implications of efficient pricing of ADG7. COAG (2008d) has directed that the ATC consider a submission by the NTC on funding and contractual implications.

RECOMMENDATION 7.4

The National Transport Commission should price all modes of provision of the Australian Dangerous Goods Code at avoidable cost, including free provision on the internet. The resultant revenue loss for the National Transport Commission, together with any compensation payable to the Code distributor, should be offset by increased jurisdictional contributions. Pricing of the Australian Explosives Code should also follow these principles.

