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# G Safety regulation and operating procedures and standards

This appendix outlines progress in regulatory reform in Australia and examines safety regulation and operating procedures and standards in other countries. It also describes the features of best practice regulation.

## G.1 Key reforms in Australia

Since the Industry Commission's 1991 inquiry, the Commonwealth, State and Territory Governments, and industry have undertaken several joint initiatives to improve rail safety regulations, and operating standards and procedures.<sup>1</sup> These are summarised in appendix D and elaborated on below.

The first major step occurred in 1993 when the Australian Transport Council (ATC), comprising Commonwealth, State and Territory Ministers, endorsed a report, *A National Approach to Rail Safety Regulation* (ATC 1993).<sup>2</sup> The report concluded that consistent rail safety regulation was required, particularly for interstate operations. It recommended that Ministers agree, among other things:

- that an Intergovernmental Agreement (IGA) be developed to achieve consistent national rail safety regulation and be based on agreed aims and principles;
- that the agreement focus on efficient and safe interstate operations, but also provide a framework for intrastate rail safety regulation;
- that the Railways of Australia, which was in the process of developing rail standards covering technical, maintenance and operational issues, be given the opportunity to play a key role in the proposed national arrangements;<sup>3</sup> and

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<sup>1</sup> The Northern Territory, but not the ACT has been involved in progressing reform in this area.

<sup>2</sup> The report was prepared by an ATC working group of Commonwealth, State and industry representatives.

<sup>3</sup> The Railways of Australia comprised all state rail authorities, but excluded National Rail Corporation and private owners. In 1994 it was changed and broadened to become the Australasian Railway Association which is the peak industry body with broad representation in the rail sector in Australia and New Zealand.

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- that a national approach to rail safety could include features present in the NSW Rail Safety Bill, including separation of regulator and operator, accreditation as distinct from prescriptive regulation, and onus on the operator for safety (ATC 1993).

The report also set out a timetable and process for achieving the proposed IGA, scheduling the Ministers' approval for around April 1995. The recommendations were endorsed by Ministers.

Adhering to the recommended process, a Commonwealth/State task group was formed to develop the draft IGA. A government/industry taskforce was also established from which a committee was formed to continue developing, in conjunction with Standards Australia, various rail standards to form parts of the Australian Standard on Railway Safety Management (AS 4292).

The IGA was signed in July 1996 (approximately one year after the scheduled time) by Commonwealth, State and Northern Territory Ministers. The IGA contained several principles:

... the Commonwealth, the States and the Territories of Australia have agreed to establish a cost effective nationally consistent approach to rail safety which ensures there is no barrier to the entry of third party operators, based on:

- safety accreditation of railway owners and operators;
- mutual recognition of accreditation between accreditation authorities;
- development and implementation of performance based standards;
- greater accountability and transparency; [and]
- facilitating competition and technical and commercial innovation consistent with safe practice. (IGA 1996, p. 1)

In particular, the Agreement set out guidelines for the establishment of a safety accreditation system for interstate operations and noted that provision for accreditation would be made under existing or future legislation. This included the requirement for the Australian Standard (although not complete) to form a basis for accreditation.

The next significant initiative took place in September 1997 when Commonwealth and State Ministers signed the Heads of Agreement on Interstate Rail Reform (the National Rail Summit).<sup>4</sup> Among other things, the parties agreed that there was an urgent need to reform interstate rail. One of the means of achieving reform was to investigate the 'organisational arrangements required to achieve these objectives and

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<sup>4</sup> Tasmania and the Territories were not signatories.

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harmonisation of technical standards’ (Heads of Agreement 1997, p. 2). Ministers agreed to develop a process to speed up the harmonisation of standards and to commission a report on safety and operating standards — the Maunsell report (ATC 1997).

By the end of 1997 the issues had been prioritised and the principles for reform agreed on. The Standing Committee on Transport (SCOT), as the main advisory body to the ATC, established a Rail Group to facilitate rail reform and advance uniformity of regulations and operating procedures and standards. The SCOT Rail Group, in turn, established a number of specific Task Groups to address the rail reform tasks nominated by Ministers at the National Rail Summit. States and Territories were in the process of implementing the IGA — various jurisdictions were amending rail safety legislation to incorporate safety accreditation and mutual recognition, and one body had been nominated as the safety regulator by each jurisdiction.

The Maunsell report provided a detailed assessment of the safety and operational issues that needed to be addressed and implementation options. It was endorsed by Ministers at the ATC meeting in April 1998 (box G.1).

The SCOT Rail Group established a number of Working Groups to address the priority action tasks identified in the Maunsell report. The Rail Safety Committee of Australia (RSCA), chaired by the Commonwealth and comprising State and Territory accreditation authorities and industry representatives, was formed in 1998 specifically to address safety issues.

An Industry Reference Group (IRG), comprising representatives nominated by the Australasian Railway Association, was established to develop nationally consistent standards and operational requirements. One of the IRG’s tasks was to develop codes of practice to facilitate more efficient interstate train operations.

Both the IRG and RSCA report progress directly to the SCOT Rail Group on a regular basis. However the industry, rather than the SCOT Rail Group, will endorse the IRG’s work on the codes of practice. Both of these groups developed action plans, including specific tasks and timelines to address the relevant priority action tasks identified in the Maunsell report (RSCA 1998; IRG 1999). The RSCA intends to finalise its work by August 1999 and implementation of the IRG’s major task, the codes of practice, is still some time away.

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### Box G.1     **The Maunsell report**

Nine key issues were identified in the Maunsell report as requiring action: safeworking, crew management and training; communication requirements; management information systems; train operating standards; axle load requirements; rollingstock design specification; rollingstock gauge; safety accreditation; and access arrangements. For each of these issues the report examined existing standards and procedures, planned changes, industry perceptions, and recommended priority action for improvement and implementation options.

Key themes which emerged in the report included:

- leadership is needed to drive the reform process;
- improvements in interstate operations should be consistent with intrastate operations;
- although uniformity is not essential in every area, it is essential at the interface between rollingstock and infrastructure, and between operating personnel on trains and personnel controlling the infrastructure;
- standards that affect safety should be set on a national basis in consultation with intrastate interests;
- mechanisms are required for the enforcement of uniform standards;
- commitment is needed by both industry and government to implement priority actions; and
- the accreditation process should be streamlined by simplifying the application processes, reducing overly prescriptive accreditation requirements, reducing the time required to gain accreditation, eliminating duplication and standardising reporting requirements.

*Source:* Maunsell 1998.

In April 1999, the ATC agreed to SCOT establishing an independent review of safety arrangements and the development of a framework for an IGA which would include the establishment of a national non-statutory unit attached to the Commonwealth Department of Transport and Regional Services to facilitate and coordinate implementation of uniform operational requirements (ATC 1999).

## **States and Territories**

This section provides more detail on various regulatory changes undertaken by the States and Territories since 1991. Jurisdictions provided the following information to the Commission.

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### *New South Wales*

A review of the *Rail Safety Act 1993* (NSW) commenced in mid 1998. Industry consultation is being finalised and submission of legislation to Parliament is anticipated in September 1999. Rewriting of the Act is expected to be comprehensive, addressing issues such as mutual recognition.

In late 1998 and early 1999 the NSW Department of Transport held discussions with the government-owned railways on managing interfaces between infrastructure owners, rail operators and contractors. Full accreditation for NSW government-owned railways is expected to be granted in 1999, embodying the agreed interface requirements (NSW Department of Transport, pers. comm., 3 March 1999).

The Independent Pricing and Regulatory Tribunal released its report on rail safety accreditation costs in March 1999. The recommendations will feed into the review of the Act.

### *Victoria*

The Public Transport Corporation Rule Book was implemented in 1994 and safety accreditation required by law from November 1998 (Department of Infrastructure, Victoria, pers. comm., 1 February 1999).

### *Queensland*

The *Transport Infrastructure Act 1994* (Qld) was amended in 1995, in part to provide a framework for access by other railway operators to the rail system, to introduce a rail safety accreditation system and to provide generic rail legislation (Queensland Department of Transport, pers. comm., 2 November 1998).

### *South Australia*

The Rail Safety Act came into effect in 1998, establishing a safety regulatory regime for all rail owners and operators in South Australia, and a coregulatory accreditation scheme.

Apart from this, and the establishment of the Operations and Access Act, the SA Government has not had direct involvement in non-urban rail since the sale of the South Australian Railways to the Commonwealth in 1975 (Department of Transport, Urban Planning and the Arts, South Australia, pers. comm., 19 February 1999).

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### *Western Australia*

The *Rail Safety Act 1998* (WA), which has recently been proclaimed, establishes the WA Department of Transport (Rail Safety Unit) as the independent regulator of rail safety in Western Australia. Legislation is based on the coregulation model and is consistent with the IGA on rail safety. Features include: mutual recognition; AS 4292 as the applicable rail standard; powers to conduct independent investigations; and administrative procedures consistent with national procedures (Westrail, pers. comm., 15 December 1998).

### *Tasmania*

The *Rail Safety Act 1997* (Tas) is to be proclaimed in 1999. The Act mirrors the SA and WA rail safety acts and prescribes AS 4292 through legislation. It also allows for the establishment of an Accreditation Authority, which will be able to grant mutual recognition, and a rail safety accreditation system (Department of Transport, Tasmania, pers. comm., 17 November 1998, 29 July 1999).

### *Northern Territory*

The NT (Self Government) Regulations were amended by the Commonwealth Government as from 1 September 1998 to include rail safety specifically.

The *Rail Safety Act 1998* (NT), gazetted in February 1999, provides the legislative basis for the administration of rail safety in the Territory (Department of Transport and Public Works, Northern Territory, pers. comm., 30 October 1998, 3 August 1999).

## **G.2 Safety regulation and operating procedures and standards in other countries**

It is useful to examine how other countries are progressing the issue of inconsistent safety regulation and operating procedures and standards where trains traverse country borders and State or Provincial borders. Different approaches to regulatory reform in other countries may be applicable to the Australian reform process.

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## European Union

Inconsistent rail safety regulation and operating procedures and standards exist within the European Union (EU) and between the EU and countries in eastern Europe. Inconsistencies cover similar technical areas to those in Australia, and include signalling and communication systems.

The EU recognised that inconsistencies adversely affect the efficient inter-country operation of freight and passenger operations, thereby restricting trade.

The issue is being addressed by governments, through forums such as the European Conference of Ministers of Transport, and by industry, through organisations such as the International Union of Railways (UIC). The EU (1996) issued a Directive (96/48/EC), outlining technical specifications, systems verification and other matters, for greater consistency for high speed rail but has not yet issued a formal plan for freight. One of the first steps in the process towards greater consistency was the release of a report on the integration of conventional rail systems in 1998 (EC 1998a) (box G.2).

Industry is cooperating with several other agencies, including governments, to progress consistency. For example, the UIC is, or has been, involved in developing:

- technical standards for systems required by the EU Directive on interoperability of the trans-European high speed rail system (96/48/EC);
- a common rail traffic management and control system for commissioning in 2000;
- a common radio control system (30 rail organisations have signed a memorandum of understanding with the UIC on its application); and
- a 'UIC Code' comprising more than 500 technical leaflets on rail operations as a basis for consistency between countries (UIC 1997; UIC 1998).

While some progress has been made, it is likely to be some time before the issue of consistency is satisfactorily resolved as agreement to change must be reached and regulatory initiatives then implemented across Europe.

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### Box G.2      **Report on the integration of national railways in Europe**

A report, prepared by Symonds Travers Morgan for the European Commission (EC 1998a) addressed international freight and passenger services. It noted inconsistencies in operating procedures and standards in Europe which are substantially more complex than in Australia. Some of the latest locomotives are fitted with six signalling systems and four electrification systems. Track gauge, axle load, signalling and communication systems, electrification and electromagnetic compatibility all vary widely across Europe. However, signalling was considered to be the greatest technical barrier to international rail operations. Language was considered to be the major social barrier.

The report concluded, among other things, that:

- there have been improvements in reducing international inconsistencies, but this has been for high speed passenger services rather than for freight;
- operators providing international services require clarity in respect of operating, safety and training standards, and certification (among other things). This is often not the case at present;
- there should be a long term vision for Europe's railways focusing on track geometry, signalling, electrification, electrical and mechanical systems, and axle loads and permitted configurations;
- a strategy should be developed for achieving harmonisation with medium term goals (5 to 10 years). Harmonisation across all areas is very long term (up to 40 years). This is because it is more cost effective to move towards harmonisation as the relevant parts become due for renewal;
- there are many bodies working on these issues, with a consequent lack of coordination. The establishment of one body should be considered; and
- standards should be performance based, rather than prescriptive to allow freedom to innovate.

*Source:* EC 1998a.

## **Canada**

Rail safety in Canada is regulated nationally by the Railway Safety Directorate in Transport Canada. It regulates the federal mainline companies, Canadian National and Canadian Pacific, and international carriers. It does not regulate the provincial rail companies, such as British Columbia Rail, or shortline companies, such as Central Western Railway which are regulated by the provinces.



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Federal and provincial safety regulations are often inconsistent. This is a problem for several reasons:

- there has been an increase in the number of new, less experienced provincial shortline rail operators;
- provincial operators provide feeder services to federal mainline operators;
- operators on the federally regulated track occasionally traverse provincial regulated track and vice versa; and
- federal rail safety inspectors are contracted to undertake inspection services in a number of provinces.

Inconsistent safety regulation has been an issue in Canada for some years. In 1989 a key piece of federal legislation, the Rail Safety Act 1989 (Canada), came into effect with the purpose of ensuring the safe operation of railways. It established a new regulatory regime founded on the principle that:

Railway management must be responsible and accountable for the safety of operations and that the regulator must have the power to protect public and employee safety. (Transport Canada 1998, p. 6)

A federal-provincial Working Group on Railway Safety Regulation was formed in 1994 to provide a forum for harmonisation of regulations between federal and state jurisdictions (Churcher 1995). It suggested various techniques by which provincial jurisdictions could adopt federal regulation, such as incorporation by reference and interdelegation by agreement.<sup>5</sup> An example of progress in this area is an interdelegation agreement between the federal authorities and the Province of Ontario to apply the safety regulation of the Act to the province's shortline railways.

This working group continues to progress harmonisation, focusing on proposed amendments to the Act and information exchange on various provincial initiatives.

A review of the Act in 1994 noted that:

- 'a consistent and national scheme is clearly needed both to ensure safety and to provide a framework in which this segment of the industry may flourish';
- the regulatory system should be changed to one that is non-prescriptive and industry-driven and out-of-date regulations should be eliminated;
- flexibility should be encouraged; and

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<sup>5</sup> Interdelegation by agreement refers to a government entering into agreement with another jurisdiction whereby the later jurisdiction 'would perform all tasks relating to rule making, monitoring for compliance and enforcement on behalf of the original' (Churcher 1995, p. 4).

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- the federal government should show leadership by clarifying roles of various parties (Railway Safety Act Review Committee 1994).

However, the recommendations were never incorporated into the Act because Parliament was dissolved prior to an election in 1997. Another review of the Act in 1998 covered similar ground. This review stressed the need for regulatory change, modernising the regulatory regime and review of the federal regulator's capabilities. Recommendations included:

- in developing regulation, performance oriented requirements should be used and the principles of Federal Regulatory Policy (similar to the Council of Australian Governments principles of best practice regulation) be adhered to;
- there should be clarification of roles and responsibilities of regulators, railways and other stakeholders; and
- railways should be required to implement a safety management system, with detailed requirements to be developed by Transport Canada in consultation with the railways so that the system is tailored to different operations (Transport Canada 1998).

## **The United States**

In the United States inconsistent regulation does not appear to be as significant an issue as it is in Europe or Canada.

Inconsistencies in operating procedures and standards developed between private rail operators rather than between government-owned railways. Most Class I railways use one of two standard operating 'rulebooks'. These are also used by several shortline railways. Some railways have their own rulebooks.

Rail safety is regulated nationally by the Federal Railway Administration in the US Department of Transportation. Over the years there has been an effort by railways to remove inconsistencies between rulebooks in order to improve efficiency and safety. Although most Class I railways have revised their rulebooks to reduce inconsistencies, some remain (Federal Railroad Administration, United States, pers. comm., 16 January 1999).

## **G.3 Best practice regulation**

In 1995 the Council of Australian Governments (COAG) endorsed the principles of best practice regulation, to be applied to making new regulations and reviewing existing regulations (box G.3).

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### **Box G.3     Features of best practice regulation**

The Council of Australian Governments (COAG) noted that best practice regulation should incorporate the following principles:

- minimising the impact of regulation (regulatory measures should be the minimum required to achieve the desired outcomes);
- minimising the impact on competition (regulation should avoid imposing barriers to entry, exit or innovation);
- regular review of regulation; and
- flexibility.

In applying these principles, best practice regulation should take account of several practical objectives including: minimising regulatory burden on the community; minimising the financial impact of administration and enforcement; accountability; compliance strategies and enforcement; performance-based regulations; and public consultation (COAG 1997).

Best practice regulation also includes a Regulatory Impact Statement (RIS) which should be undertaken for all proposed regulation. A RIS should assess many of the features of best practice regulation noted above and should include among other things:

- the key problem to be resolved;
- the objectives;
- options to achieving the desired objectives (both regulatory and non-regulatory) for example, standards and codes (voluntary or mandatory, prescriptive or performance-based), or self regulation;
- an assessment of the impact (benefits and costs) on consumers, business, government and the community of each option;
- a consultation statement;
- a recommended option; and
- an implementation strategy.

*Sources:* ORR 1998; COAG 1997.

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