TRUCK INDUSTRY COUNCIL

VOLUNTARY CODE OF PRACTICE

FOR

ELECTROMAGNETIC COMPATIBILITY (EMC)

OF

MOTOR VEHICLES

The code is prepared under the direction of the TIC board, and endorsed by members of that organisation.

This voluntary code of practice formalises agreements between the Australian Communications Authority and the Truck Industry Council which include compliance with Broadband and Narrowband electromagnetic emission requirements and Immunity of devices to electromagnetic interference.

This voluntary code is effective progressively for new model vehicles from January (Broadband emission, Narrowband emission and Immunity).

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INTRODUCTION

The Australian Communications Authority (ACA) has responsibility to achieve effective control over unintended electromagnetic interference through implementation of a system of compliance with relevant standards.

The ACA framework regulations require that all electrical and electronic equipment comply with relevant emission and (where appropriate) immunity standards from 1 January, 1997.

Meetings between ACA and TIC established that compliance with EMC requirements will be ensured through a TIC Code of Practice, which is binding products manufactured by TIC member companies.

BACKGROUND

The current regulation for Commercial vehicles is directive 2004/104 EC and includes Broadband emissions, Narrowband emission and Immunity, 2004/104 EC was issued in 2004 as an amendment of 95/45 EC which had been applied from the 1990's.

2004/104 EC was issued after about 9 years of consideration in order to separate vehicles from application 89/336 EC; the general EU-EMC directive for all electrical and electronic equipment.

In Europe 2004/104 EC requires all new type approval vehicles or electrical/electronic sub assemblies or technical units to comply with Broadband and Narrowband emissions and immunity from January and all vehicles or electrical/electronic sub assemblies or technical units to comply by October.

The requirements of 2004/104 EC have been incorporated into the 02 series of amendments of ECER10.

1. ENDORSEMENTS

This voluntary Code has been prepared under the direction of the TIC Board and endorsed by members of that organisation. In addition, this voluntary code was endorsed by the Federal Minister for Communications and Arts, and the Federal Minister for Transport and regional Development.

2. DEFINITIONS

For the purpose of this document the following definitions apply:

a) TIC Member

Means the organisation in Australia represented on TIC:

- Which manufacturers and/or assembles and/or imports vehicles and engines for distribution in Australia; or
- Which is the accredited representative in Australia of an overseas manufacturer and which is responsible for the distribution of the overseas manufacturer's vehicles and engines in Australia and which has adopted this code.

b) New Model Vehicle

A new model vehicle is one which has a compliance plate approval issued after the date specified in clause 7, or in the case of a non-road registered or specific purpose vehicle is first offered for sale prior to the date specified in clause 7.

c) Existing Model Vehicle

An existing model vehicle is one which has a compliance plate approval issued prior to the date specified in clause 7, or in the case of a non-road registered or specific purpose vehicle is on sale prior to the date specified in clause 7.

d) Vehicle Category

Is the categorisation of a vehicle as per the definitions contained in the 3rd Edition Australian Design rules as issued by the Federal Office of Road Safety.

e) For the definitions of Broadband emissions, Narrowband emissions, Immunity, electrical/electronic sub assemblies (ESA) and technical units refer to 2004/104 EC.

3. SCOPE

This voluntary Code of Practice applies to all new M and N category vehicles as defined in the 3rd Edition Australian Design Rules (i.e. vehicles registerable for use on the road).

4. BASIC CONCEPTS

Compliance with the relevant standard(s) will be ensured in all cases via the self regulatory process of adherence to the code of practice. Audit and penalty provisions applicable to products complying with the ACA Electromagnetic Framework Regulations are not applicable to products complying with the TIC Code of Practice.

Compliance labelling requirements will not apply to product covered by the TIC code as full traceability of individual product compliance status is provided by reference to manufacturer name and series/serial/model numbers.

It is possible to extend compliance status to cover other Vehicle Types, either as variants to a model or as a superseding model, provided the conditions of 2004/104 EC are met.

A complying vehicle may have additional or replacement electrical/ electronic equipment fitted to it without requiring retest/confirmation of the vehicle provided this equipment also complies with either 2004/104 EC (for M and N group).

Optional 'generic' electronic equipment fitted to vehicles by the vehicle manufacturer (i.e. where substantially the same equipment e.g. mobile telephone or television etc could be fitted to any manufacturers vehicle) requires compliance with either the Code of Practice or a relevant standard from the EMC Framework regulations.

5. TECHNICAL REQUIREMENTS

Compliance with this code of practice requires that sufficient evaluations have been undertaken to ensure the performance of vehicles and/or electronic sub-assemblies (ESA's) satisfies the requirements of:

5.1) In the case of M and N group vehicles (including 'specific purpose") Broadband emission, Narrowband emission and Immunity, to the technical requirements of either the European EMC Directive 2004/104 EC or United Nations Economic Commission for Europe (ECE) Regulation 10 incorporating the 02 series of amendments.

6. TEST FACILITIES

Broadband emission measurements can be carried out at an open air test site. Narrowband emission measurement is difficult to carry out in an open air test site due to interference by incoming RF noise, although some open air facilities are operating in low areas with low background RF noise. On the other hand, Immunity testing requires large size anechoic chambers which could be used also for large size commercial vehicles. Furthermore, Immunity testing requires considerable additional equipment; e.g. high power RF power amplifiers, etc.

It is desirable, although not essential that test reports associated with the declaration of conformity against the primary standards be issued by a test laboratory accredited for the relevant tests by the National Association of Testing Authorities (NATA) – for testing in Australia, or be a test laboratory accredited for the relevant tests by a body that has mutual recognition agreement with NATA- in the case of overseas laboratories. The laboratory may be 'in-house', that of a client or second party (supplier) or a third party commercial test facility.

7. IMPLEMENTATION AND TIMING

	Vehicle Category	**Requirement**	**New model Vehicle *1**	**Existing Model Vehicle *1**
Broadband Emission	M, N	Ref 5.1		
Narrowband emission	M, N	Ref 5.1		
Immunity	M, N	Ref 5.1		

*1- Timing shown applies to vehicles, electrical and electronic sub-assemblies and technical units