Transport and Resources Committee

14 April 2021

This submission is on behalf of the Motorcycle Advocacy Group (Qld) which is a Facebook group advocating for motorcycle issues in Queensland. We have over 2300 members in our group and we network with many thousands more riders, predominately from South East Queensland but also from interstate.

On the 4th of February 2021, we launched a Parliamentary Petition.

This petition requested the House to do all in its power to resolve the conflicts presently inherent in the Transport Operations (Road Use Management - Vehicle Standards and Safety) Regulation 2010 (Qld) and the Vehicle Standards in the Australian Design Rules so that manufacturers, retailers, fitters, consumers and enforcement agencies have certainty and confidence that they are meeting the requirements of the Regulations.

Petitioners are specifically concerned that replacement exhausts and noise emissions provisions in the Regulations are currently in conflict with Vehicle Standards in the Australian Design Rules.

We based this petition on an article written in "Motorbike Writer" by Mark

Hinchliff and the notes prepared by Brisbane barrister Levente Jurth.

To date we have received 1834 signatures supporting the petition with the vast majority received prior to this Inquiry being commenced.

David White

The Motorcycle Advocacy Group (Qld) wish to make a submission on the following

- a. Options to improve vehicle standards and safety in Queensland, including in relation to the:
 - i. current Australian vehicle design rules;
 - ii. inspection regime for registered vehicles;
 - iii. pre-sale certification scheme, including measures to reduce fraud and improve consumer safety;
 - iv. management of written-off vehicles and 're-birthing';
 - after-market vehicle modification framework, including achieving consistency to ensure best alignment with other Australian jurisdictions.

The Motorcycle Advocacy Group (Qld) believes the Transport Operations (Road Use Management Act) 1995 and the Transport Operations (Road Use Management-Vehicle Standards and Safety) Regulation 2010 (Qld) (The Regulations) are currently unworkable with regard to compliance and enforcement.

We are specifically concerned that replacement exhausts and noise emissions provisions in the Regulations are currently in conflict with Vehicle Standards in the Australian Design Rules.

A great many people who have spent money or intended to spend money on these exhausts are not confident as to whether their purchases are compliant or not.

David Whate

This uncertainty undermines economic activity and strength throughout the automotive industry.

Noise emissions for each individual vehicle models are presently set by the manufacturer and reflect that vehicles intended market use. For example if it is family or sport oriented.

The present stationary noise spectrum spans:

Lexus G300 @67db or Maserati Grantourismo @113db.

Yamaha XC125 @79db or Aprillia Tuono @109db

The Motorcycle Advocacy Group (Qld)recommends that the following changes are made.

The Motorcycle Advocacy Group (Qld) recommends a uniform upper noise limit should be applied to all replacement exhaust systems.

We suggest a figure of 115db would address any existing anomalies. However 110db might be more environmentally responsible.

Based on the notes prepared by Brisbane barrister Levente Jurth (attached), the Motorcycle Advocacy Group (Qld)recommends that the following changes are made.

Modifying light vehicle

- (1) A person must not...
- (d) modify a light motor vehicle's silencing device if the modification reduces, or is likely to reduce, the effectiveness of the device such that it exceeds the stationary noise level prescribed in section 135 of the Vehicle Standards.

Maximum penalty-20 penalty units.

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104. Similarly, in relation to non-ADR 83/00 certified vehicles, section 11 of the Regulations ought to be construed and understood as providing:

Modified silencing device

A person must not drive a light motor vehicle on a road if the vehicle's silencing device has been modified to reduce, or to be likely to reduce, the effectiveness of the device <u>such that it exceeds the stationary noise level prescribed in section 135 of the Vehicle Standards</u>.

Maximum penalty—20 penalty units.

Based on the notes prepared by Brisbane barrister Levente Jurth (attached), the Motorcycle Advocacy Group (Qld)recommends that the following changes are made.

Modifying light vehicle

- (1) A person must not...
- (d) modify a light motor vehicle's silencing device if the modification reduces, or is likely to reduce, the effectiveness of the device by more than 5dB(A) above the stationary noise level that was established for the motor vehicle when it was certified to ADR83/00.

Maximum penalty-20 penalty units.

107. Similarly, in relation to ADR 83/00 certified vehicles, section 11 of the Regulations ought to be construed and understood as providing:

Modified silencing device

A person must not drive a light motor vehicle on a road if the vehicle's silencing device has been modified to reduce, or to be likely to reduce, the effectiveness of the device by more than 5dB(A) above the stationary noise level that was established for the motor vehicle when it was certified to ADR 83/00.

Maximum penalty-20 penalty units.

David White

2) Motorcycle Rider only Insurance and Registration

As Queensland is the only State allowing motorcycles to be registered and insured for a rider only, Queensland sets best practice standards.

Currently, a rider only motorcycle is required to have no pillion foot pegs, no more than 500mm riders seat with any pillion seat either removed or covered in some way that is not easy to remove.

Problems with the pillion seat being removed are that often it is an integral part of the front seat as well. With a rear seat removed, the front seat may well be unstable as the manufacturer has often designed the seating system so that the rear seat holds the front seat in position.

Another problem is when the rider and pillion seat are one piece, often the latch enabling the seat to be removed is under the rear section of the seat. The seat would not be able to be removed to access the toolkit, battery, fuses etc which are generally located under the seat of most motorcycles.

The Motorcycle Advocacy Group (Qld) recommends that the following changes

are made. That removal of pillion foot pegs, any pillion straps and hand grips that are not integral to the safe functioning of the motorcycle should be all that is necessary when registering a rider only motorcycle in Queensland.

David White

David White Signature

Co-Administrator

On behalf of the Motorcycle Advocacy Group (Qld) which is a Queensland wide motorcycle advocacy Facebook group.



Regulations relating to motorbike (1) aftermarket exhaust noise emissions (2)

- (1) I prefer the term "motorcycle". However, as the Regulations under discussion use the term "motorbike", the latter is used in this paper for the sake of consistency.
- (2) On 8 January 2016, this paper was provided in draft form for comment. Without naming them, I thank those who provided feedback and have assisted me in preparing this paper. It is now published in final form. Of course, any errors remain my own.

Part A — Introduction

- 1. On the whole, the sportbike community is a law-abiding one. According to Kevin Cameron's definition, "A sportbike is a motorcycle whose enjoyment consists mainly from its ability to perform on all types of paved highway its cornering ability, its handling, its thrilling acceleration and braking power, even (dare I say it?) its speed." <Cameron, Kevin (1988), Sportbike Performance Handbook, Saint Paul, Minnesota; Motobooks Workshops at page 5.> Each of those attributes may be enjoyed without breaking the law and the road rules are usually clear enough.
- 2. Great effort, expense and pride can go into modifying and personalising a motorbike, whether to increase its dynamic performance, or to enhance its safety, or to add to its visual appeal. Most often, it involves a combination of all three of those things.
- 3. In a majority of cases, the first modification that a rider makes to his or her motorbike is to install an aftermarket exhaust, whether a whole system or one or more components of it. There are probably two reasons for this: first, an aftermarket exhaust satisfies each of the three aforesaid outcomes of modification and personalisation; and secondly, it is a relatively simple and inexpensive modification.
- 4. In this paper, a reference to an "aftermarket exhaust" is a reference to a motorbike's exhaust system, or any component of it header (manifold), midpipe or muffler that is intended to replace the stock or factory fitted exhaust system. It may be accepted that in a majority of cases but not in all cases the aftermarket exhaust is louder than the stock or factory fitted exhaust.
- 5. For the past few years, officers from the Queensland Police Service and the Queensland Department of Transport and Main Roads have been issuing "defect notices" to riders in respect of aftermarket exhausts being fitted to their motorbikes. In some cases, defect notices were issued as a result of sound level testing. In other cases, simply having an aftermarket exhaust fitted resulted in a defect notice being issued, or attracted a police caution, without troubling with the sound level meter.
- 6. The consequences of a motorbike being found to be defective due to a louder aftermarket exhaust ranges from serious (substantial fines and demerit points) to draconian (under the so-called "anti-hoon laws" pursuant to the provisions of the Police Powers and Responsibilities Act 2000 (Qld), the motorbike can be impounded or even forfeited to the State).
- 7. It is, therefore, imperative that riders (on the one hand) and police and other relevant officers (on the other hand), clearly know what the regulatory provisions concerning aftermarket exhausts and motorcycle noise emissions are so that the former can comply with them and the latter can effectively enforce them.
- 8. One would imagine that as much ought to go without saying. Sadly, however, that seems not to be the case. There appears to be confusion on both sides as to what the relevant provisions permit and prohibit, and precisely where that line is.

- 9. For the avoidance of any doubt, this paper is not intended, nor should it be relied upon, as legal advice. Rather, in the time available to me, it is a convenient way to:
- (a) draw together in one document the relevant provisions of numerous interrelated regulatory and other instruments relevant to aftermarket exhausts and motorcycle noise emissions (which for the lay person can be hard to find);
- (b) set out the relevant provisions of those instruments; and
- (c) respectfully offer solutions to some of the difficulties of construction and drafting with which those instruments are vexed.
- 10. That said, the views and conclusions expressed in this paper on issues of law are my sincerely held views as a barrister and I would have no hesitation in making submissions to a Court consistent with such views.

Part B — The Regulations

11. The primary regulations are the Transport Operations (Road Use Management— Vehicle Standards and Safety) Regulation 2010 (Qld) (herein called "the Regulations"), which is available at the following URL:

https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantOpRUVSSR10.pdf

12. The Regulations are regulations made under the Transport Operations (Road Use Management) Act 1995 (Qld) (herein called "the Act"), which is available at the following URL:

https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TrantOpRUA95.pdf

- 13. Part 2 of the Regulations is headed "Vehicle standards".
- 14. Relevantly, sections 4 and 5 of the Regulations appear within Part 2.
- 15. Section 4 of the Regulations provides as follows:

Vehicle standards

- (1) The vehicle standards are based on the Australian Vehicle Standards Rules 1999 contained in the National Transport Commission (Road Transport Legislation—Vehicle Standards) Regulations 2006 (Cwlth), schedule 2 to the extent the rules apply to light vehicles.
- (2) The vehicle standards are set out in schedule 1.
- 16. A "light vehicle" is broadly defined in Schedule 4 to the Regulations as: a vehicle (including a combination) that is not a heavy vehicle.
- 17. A "motorbike" is relevantly defined in Schedule 4 to the Regulations as: a light motor vehicle with 2 wheels, and includes a 2-wheeled light motor vehicle with a sidecar attached to it that is supported by a third wheel.
- 18. A "light motor vehicle" is defined in Schedule 4 to the Regulations as: a motor vehicle that is a light vehicle.
- 19. For the purposes of the Regulations, a "light vehicle" and a "light motor vehicle", therefore, includes a motorbike.
- 20. Sub-section 5(1) of the Regulations provides as follows:

Compliance with vehicle standards

- (1) A person must not drive or park, or permit someone else to drive or park, a light vehicle on a road—
- (a) unless—

- (i) the vehicle is fitted with the equipment (the equipment) mentioned in, or required by, the vehicle standards, other than optional equipment, that is appropriate to the vehicle; and
- (ii) if the vehicle is fitted with the equipment—the equipment complies with the requirements specified in the vehicle standards; and
- (iii) the vehicle is otherwise constructed and loaded to comply with the vehicle standards; and
- (iv) the vehicle, its parts and equipment are in safe condition; and
- (v) optional equipment fitted to the vehicle complies with the requirements in the vehicle standards for the optional equipment; and
- (vi) the stationary noise level of the vehicle complies with the vehicle standards; or
- (b) if the vehicle is not unsafe, but it is otherwise defective.

Maximum penalty—20 penalty units.

- 21. Sub-section 5(3) of the Regulations deals with fitting "optional equipment" in accordance with "the vehicle standards". It provides as follows:
- (3) Without limiting subsection (1)(a)(v), optional equipment fitted to a light vehicle is taken to comply with the requirements of the vehicle standards only if—
- (a) if the vehicle standards impose a requirement for fitting the optional equipment to the vehicle—the equipment is fitted as required by the standards; or
- (b) otherwise—the optional equipment is fitted securely to the vehicle.
- 22. Section 5 of the Regulations draws a distinction between "the equipment" and "the optional equipment". The same dichotomy appears in section 7 of the Regulations that deals with defective light vehicles.
- 23. It is clear enough that "the equipment" is equipment that is fitted to the vehicle mentioned in or required by "the vehicle standards". In other words, it is the standard equipment, presumably including original equipment manufacturer (herein called "**OEM**") parts, with which a new motorbike is delivered from the showroom floor.
- 24. However, what is meant by "optional equipment"? Unhelpfully, neither the expression "optional equipment" nor the word "optional" is defined in any of:
- (a) the Regulations;
- (b) the Act;
- (c) the Australian Vehicle Standards Rules 1999 contained in the National Transport Commission (Road Transport Legislation—Vehicle Standards) Regulations 2006 (Cth), which is available at the following URL:

https://www.comlaw.gov.au/Details/F2007C00149; or

- (d) the Motor Vehicle Standards Act 1989 (Cth), which is available at the following
- URL: https://www.comlaw.gov.au/Details/C2015C00150.
- 25. In the absence of a specific statutory definition, what is meant by "optional equipment" is left to be determined by its ordinary English meaning.
- 26. The adjective "optional" is defined by the Macquarie dictionary as:
- left to one's choice;
- leaving something to choice.
- 27. The Oxford dictionary defines the word in the same terms and adds: a matter of choice; depending on choice or preference; not obligatory.

- 28. Accordingly, "optional equipment" is equipment that is left to one's personal, free choice or preference. It is not obligatory, or prescribed, or compulsory. Of course, in the circumstances, the one exercising the choice or preference must be the owner of the motorbike. However, I would suggest that such personal free choice or preference is not unlimited the equipment cannot be unlawful, unsafe or otherwise defective.
- 29. In my view, therefore, "optional equipment" includes aftermarket exhausts. It is equipment that the owner can choose to fit to his or her motorbike, subject to it being lawful and safe. There is no reason to suppose that "optional equipment" is limited to options offered by the manufacturer (whether such equipment is actually manufactured by the manufacturer of the motorbike or constitutes OEM parts) to the exclusion of options which may be sourced by the owner of the motorcycle from an alternative supplier.
- 30. Accordingly, read alone, sub-sections 5(1)(a)(v) and 5(1)(a)(vi) of the Regulations would permit an aftermarket exhaust to be fitted to a motorbike, and for a motorbike fitted with an aftermarket exhaust to be "drive[n]" (ridden) on a road, if the aftermarket exhaust:
- (a) complies with the "vehicle standards", including the applicable "stationary noise level"; and
- (b) is fitted to the motorbike as required by the "vehicle standards", or if the "vehicle standards" do not impose a relevant requirement, then fitted securely to the motorbike.
- 31. That, then, requires consideration of what the "vehicle standards" applicable to aftermarket exhausts and the "stationary noise levels" applicable to motorbikes are.

Part C — The Vehicle Standards

Control of Emissions

- 32. Schedule 1 to the Regulations is headed "Vehicle standards" (herein called "the Vehicle Standards"). It sets standards with which vehicles must comply in order to be driven or ridden on roads. In most cases, if a vehicle complies with the vehicle standards, it is suitable to be lawfully used on a road.
- 33. Part 2 of the Vehicle Standards is headed "Australian Design Rules". It contains provisions concerning the applicability of, and compliance with, the Australian Design Rules (herein called "ADR").
- 34. For the purposes of this paper, it is presumed that all motorbikes complied with the applicable ADR at the time of manufacture and original sale (that is, prior to any aftermarket modifications). It is beyond the scope of this paper to consider pre ADR or ADR exempt motorbikes.
- 35. Part 9 of the Vehicle Standards is headed "Control of emissions".
- 36. Division 2 of Part 9 is headed "Exhaust systems" and contains section 130.
- 37. Section 130 of the Vehicle Standards provides as follows:

Exhaust systems

- (1) The outlet of the exhaust system fitted to a motor vehicle, other than a bus, must extend—
- (a) behind the back seat; and
- (b) at least 40mm beyond the outermost joint of the floorpan that is not continuously welded or permanently sealed; and
- (c) to the edge of the vehicle, if—
- (i) the body of the vehicle is permanently enclosed; and
- (ii) the vehicle is not fitted with a vertical exhaust system; and

- (d) no further than the edge of the vehicle at its widest point.
- (2) The outlet must discharge the main exhaust flow to the air—
- (a) if the vehicle is fitted, or required to be fitted, with an exhaust system with a vertical outlet pipe—
- (i) at an angle above the horizontal; and
- (ii) at least 150mm above the cab of the vehicle; and
- (iii) towards the rear, or to the right, of the vehicle; and
- (b) in any other case—
- (i) horizontally or at an angle of not over 45° downwards; and
- (ii) under 750mm above ground level; and
- (iii) towards the rear, or to the right, of the vehicle.
- (3) Subsections (1) and (2)(b) do not apply to a light vehicle—
- (a) primarily designed for the carriage of goods; and
- (b) with either—
- (i) 3 wheels and a GVM of more than 1t but not more than 12t; or
- (ii) more than 3 wheels and a GVM of not more than 12t.
- 38. Section 130 of the Vehicle Standards is the only section in the Vehicle Standards that deals with exhaust systems. However, it is not immediately apparent to me how section 130 of the Vehicle Standards could apply to motorbikes, despite it stating that it applies to all motor vehicles other than buses.
- 39. For example, sub-section 130(2)(b)(i) of the Vehicle Standards requires that "the outlet must discharge the main exhaust flow to the air... horizontally or at an angle of not over 45° downwards". To my knowledge, the exhaust system on most, if not all, sportbikes discharges the exhaust flow horizontally or at an angle upwards. It also seems awkward to speak of a motorbike having a "back seat" or a "floorpan".
- 40. Arguably, motor scooters with step-through frames such as the ubiquitous Vespa have a form of "floorpan"; but, even so, it is difficult to see how subsection 130(1)(b) of the Vehicle Standards could be applied to a motor scooter insofar as it requires ascertainment of "the outermost joint of the floorpan that is not continuously welded or permanently sealed".
- 41. In any event, it is beyond the scope of this paper to consider the physical size or placement of aftermarket exhausts. The scope of this paper is limited to noise emissions from aftermarket exhausts.

Noise Emissions

- 42. Division 3 of Part 9 is headed "Noise emissions".
- 43. Subdivision 1 of Part 9, Division 3, is headed "General" and contains sections 131 to 133.
- 44. Section 131(1) of the Vehicle Standards provides as follows:

Measurement of stationary noise levels

For this regulation, the stationary noise level of a motor vehicle must be measured in accordance with the procedure set out for the kind of vehicle in the document titled 'National Stationary Exhaust Noise Test Procedures for In- Service Motor Vehicles – September 2006' published by the commission.

- 45. The "National Stationary Exhaust Noise Test Procedures for In-Service Motor Vehicles" published in September 2006 by the National Transport Commission and referred to in section 131(1) of the Vehicle Standards is available at this URL.
- 46. Section 132 of the Vehicle Standards provides as follows:

Meaning of certified to ADR 83/00

For this regulation, a vehicle is certified to ADR 83/00 if approval has been given, under the Motor Vehicle Standards Act 1989 (Cwlth), section 10A, to place identification plates showing compliance with ADR 83/00 on vehicles of that type.

47. The reference to "ADR 83/00" is a reference to the Vehicle Standard (Australian Design Rule 83/00 — External Noise) 2005, which is available at the following URL:

https://www.comlaw.gov.au/Series/F2005L03523

48. Section 133(1) of the Vehicle Standards provides as follows:

Silencing device for exhaust systems

A motor vehicle propelled by an internal combustion engine must be fitted with a silencing device.

49. Section 133(2) of the Vehicle Standards provides a definition of the term "silencing device" limited to "this section" as follows:

a device—

- (a) through which all the exhaust from the engine passes; and
- (b) if the device is designed to be manipulated by a person—capable of being tested while the device is fully open.
- 50. Although that definition is expressly limited to section 133 of the Vehicle Standards, as the Regulations and Vehicle Standards contain no other definition of "silencing device", I shall proceed on the basis that it is intended to apply to the whole of the Regulations and the Vehicle Standards, not just section 133 of the Vehicle Standards.
- 51. Arguably, a "silencing device" encompasses an "aftermarket exhaust" as the latter term is used in this paper.

Maximum Stationary Noise Levels

- 52. Subdivision 2 of Part 9, Division 3, is headed "Noise levels applying to vehicles not certified to ADR 83/00" and contains sections 134 to 137.
- 53. Section 134 of the Vehicle Standards provides that Subdivision 2 "applies to a motor vehicle other than a vehicle certified to ADR 83/00".
- 54. Section 135 of the Vehicle Standards which applies to non-ADR 83/00 certified vehicles relevantly provides as follows:

Stationary noise levels—cars, car derivatives, motorbikes and motortrikes

The stationary noise level of a car, car derivative, motorbike or motortrike must not be more than—
(a) ...

- (b) ...
- (c) for a motorbike or motortrike built after February 1985—94dB(A); or
- (d) for another motorbike or motortrike—100dB(A).
- 55. Subdivision 3 of Part 9, Division 3, is headed "Noise levels applying to vehicles certified to ADR 83/00" and contains section only section 138.
- 56. Section 138 of the Vehicle Standards provides as follows:

Stationary noise levels

The stationary noise level of a motor vehicle that is certified to ADR 83/00 must not exceed, by more than 5dB(A), the noise level that is established for the motor vehicle when it is certified.

- 57. It will be noted that the ways in which stationary noise level limits are calculated for non-ADR 83/00 certified vehicles and ADR 83/00 certified vehicles are different:
- (a) a maximum noise level is prescribed for the former; whereas

- (b) the latter is calculated by the noise level limit that was established for each vehicle when it was certified plus no more than 5dB(A). For example, the 2015 Aprilia Tuono 1100 is certified to ADR 83/00 at a noise level of 107db(A) at 5,500 rpm. The maximum stationary noise level for that motorbike would, therefore, be 112db(A) at 5,500 rpm, being 107db(A) plus 5dB(A).
- 58. The maximum stationary noise levels for motorbikes, therefore, are as follows:
- (a) for a motorbike certified to ADR 83/00 the noise level that is established for it when it was certified plus no more than 5dB(A);
- (b) for a motorbike not certified to ADR 83/00 and built after February 1985 94dB(A); and
- (c) for a motorbike not certified to ADR 83/00 and built in or before February 1984 100dB(A).
- 59. Were the Regulations to end there, the position would be perfectly simple: a motorbike, whether fitted with a stock or factory fitted exhaust, or an aftermarket exhaust, would comply with the Vehicle Standards and the Regulations and hence be suitable to be lawfully used on a road if the maximum stationary noise level referred to in the immediately preceding paragraph hereof applying to the particular motorbike was complied with. Exceeding those levels would constitute an offence under section 5 of the Regulations.

Part D — The Prohibition on Modifications

60. Unfortunately, things are not that simple. That is because sub-sections 10(1)(d) and section 11 the Regulations (which also appear within Part 2) contain a prohibition on performing a modification to a "silencing device" and driving a vehicle on a road containing a modified "silencing device", and that prohibition, on its face, operates without reference to the stationary noise levels prescribed by the Vehicle Standards.

Section 10 of the Regulations

61. Sub-section 10(1)(d) of the Regulations provides as follows:

Modifying light vehicle

- (1) A person must not—
- (a) ...
- (b) ...
- (c) ...
- (d) modify a light motor vehicle's silencing device if the modification reduces, or is likely to reduce, the effectiveness of the device.

Maximum penalty—20 penalty units.

- 62. Sub-section 10(2) of the Regulations provides certain exceptions to the prohibition contained in subsection (1) as follows:
- (2) However, a person does not contravene subsection (1) if—
- (a) the modification complies with the chief executive's approval under section 13(2)(b) or with an approved code of practice within the meaning of section 13(7); or
- (b) the person reasonably believes the vehicle is not to be used on a road.
- 63. Sub-section 10(2)(b) of the Regulations may be quickly disposed of. It comprehends situations where, for example, a farm-bike is intended to be used only on private property or track or race-bike is intended to be used only on closed circuit tracks.

64. Modifications that comply with the chief executive's approval pursuant to sub-section 10(2)(a) of the Regulations can also be put to one side.

National Code of Practice

- 65. The "approved code of practice" referred to in sub-section 10(2)(a) of the Regulations is defined in sub-section 13(7) of the Regulations as:
- (a) the National Code of Practice for Light Vehicle Construction and Modification;
- (b) the Queensland Code of Practice—Vehicle Modifications.
- 66. The National Code of Practice for Light Vehicle Construction and Modification (herein called "the National Code of Practice") and the Queensland Code of Practice—Vehicle Modifications are available at the following URL:

http://www.tmr.qld.gov.au/Safety/Vehicle-standards-and modifications/Vehicle-modifications/Light-vehicle-modifications.

- 67. Section LL of the National Code of Practice is headed "Motorcycles & Three Wheeled Vehicles".
- 68. Clause 2.1.15 of the National Code of Practice is headed "Noise" and provides as follows:

Motor cycles manufactured from 1 July 1975 are subject to strict design requirements for noise emissions. Components affecting noise emissions (especially exhaust systems) must not be modified and must be maintained in a serviceable condition. Any replacement component must be as near as practical to the original component specification.

The AVSR sets stationary noise limits for all motor vehicles including motorcycles. The stationary noise level for a motor cycle or a motor trike, built after February 1985, is 94 dB(A) or for any other motor cycles or motor trikes, 100dB(A). Refer to Section LT Test Procedures for details about the stationary noise test.

Exhaust system should therefore not be replaced or modified if this is likely to increase the vehicle's noise output beyond that of the unmodified system when in good condition.

Motor cycles manufactured from 1 July 1988 have all components of the Silencing System marked with the name or trade name of the manufacturer. Every motor cycle manufactured after 1 July 1988 carries

details of the ADRs 39/... and 83/... stationary noise test in a format similar to that shown in Figure LL7...

Any replacement part of the system must show the trademark or the name of the manufacturer of the system.

- 69. It is immediately apparent that clause 2.1.15 of the National Code of Practice is partly inconsistent with the maximum stationary noise levels set out in the Vehicle Standards referred to above in that it imposes a 94dB(A) stationary noise level limit on all motorbikes manufactured after February 1985, rather than, in the case of ADR 83/00 certified vehicles, the noise level that is established for the vehicle when it was certified plus no more than 5dB(A).
- 70. Returning to the example of the 2015 Aprilia Tuono 1100, clause 2.1.15 of the National Code of Practice achieves the absurd and unintended result that:
- (a) the motorbike is certified to ADR 83/00 at a noise level of 107db(A) at 5500rpm; and
- (b) despite such certification, it nevertheless contravenes clause 2.1.15 of the National Code of Practice as its stationary noise level is well above 94dB(A).
- 71. The same would result from any other motorbike certified to ADR 83/00 at a noise level exceeding 94dB(A).

- 72. Clause 2.1.15 of the National Code of Practice refers to "Section LT Test Procedures for details about the stationary noise test".
- 73. Section LT of the National Code of Practice is headed "Test Procedures". It contains a part headed "Noise Test". That part relevantly states as follows:

COMPLIANCE WITH IN-SERVICE REQUIREMENTS FOR ALL VEHICLES

Vehicles must not exceed the maximum noise levels specified in the Australian Vehicle Standard Rules for the ADR category of the vehicle and its date of manufacture.

VEHICLES MANUFACTURED TO ADR 83/00 SPECIFICATIONS

The stationary noise level of a motor vehicle that is certified to ADR 83/00 must not exceed, by more than 5 dB(A), the noise level that is established for the motor vehicle when it is certified.

- 74. The noise test procedure contained within section LT of the National Code of Practice, therefore, does allow for the 5dB(A) increase in relation to ADR 83/00 certified vehicles. That is consistent with the Vehicle Standards, but is inconsistent with clause 2.1.15 of the National Code of Practice.
- 75. Accordingly, the situation is apparently as follows:
- (a) sub-section 10(1)(d) of the Regulations prohibits modifying a vehicle's silencing device if the modification reduces the effectiveness of the device that is the exhaust becomes louder;
- (b) the prohibition contained in sub-section 10(1)(d) of the Regulations is subject to certain exceptions contained in sub-section 10(2) of the Regulations, relevantly, a modification is not prohibited if it complies with the National Code of Practice;
- (c) clause 2.1.15 of the National Code of Practice does not allow for the 5dB(A) increase in relation to ADR 83/00 certified vehicles but instead imposes a 94dB(A) stationary noise level limit on all motorbikes manufactured after February 1985;
- (d) clause 2.1.15 of the National Code of Practice is, therefore, partly inconsistent with the Vehicle Standards;
- (e) clause 2.1.15 of the National Code of Practice refers to a noise test procedure set out in Section LT of the (same) National Code of Practice;
- (f) the noise test procedure set out in Section LT of National Code of Practice which is presumably required to test compliance with the limits imposed by clause 2.1.15 of the National Code of Practice does allow for the 5dB(A) increase in relation to ADR 83/00 certified motorbikes; and
- (g) the noise test procedure set out in Section LT of National Code of Practice is, therefore, inconsistent with clause 2.1.15 of the (same) National Code of Practice, but is consistent with the Vehicle Standards.
- 76. The completely absurd and plainly unintended result being that an ADR 83/00 certified motorbike that has a stationary noise level of (say) 100dB(A) when certified would pass the noise test procedure set out in Section LT of National Code of Practice (and also comply with the Vehicle Standards) and despite doing so would nevertheless not comply with clause 2.1.15 of the National Code of Practice.
- 77. It follows that the whole of the National Code of Practice relating to noise emissions and their testing is a circular nonsense. It begs the question, how is one to comply with its requirements?
- 78. That confusion then infects the prohibition on modifying a silencing device provided for in sub-section 10(1)(d) (and, as I shall come to, section 11) of the Regulations as one cannot know with certainty what the exception provided for in section 10(2)(a) of the Regulations to that prohibition means or extends to.

Section 11 of the Regulations

79. Returning, then, to the Regulations, section 11 of the Regulations provides as follows:

Modified silencing device

A person must not drive a light motor vehicle on a road if the vehicle's silencing device has been modified to reduce, or to be likely to reduce, the effectiveness of the device.

Maximum penalty—20 penalty units.

80. In my view, the exceptions provided for in sub-section 10(2)(a) of the Regulations also applies to the prohibition contained in section 11 of the Regulations. That is because it must follow that if it is lawful to perform a modification to a vehicle because the modification comes with the exception provided for in sub-section 10(2)(a) of the Regulations, then it must also be lawful to drive such a modified vehicle on a road.

81. Ordinarily, the expression "modify" would connote that the original device continues to exist, albeit in a form which is somehow altered, rather than discarded and replaced. But in the context of sub-section 10(1)(d) and section 11 of the Regulations, that cannot be what was intended: otherwise, a motorist who simply removes the silencing device from a vehicle, and who fails to replace it either with an altered version of the original device or a new device, would be exempt from the operation of these provisions.

82. The better construction is to read "silencing device" as "silencing system", such that sub-section 10(1)(d) and section 11 of the Regulations are directed, not at modifications made to a specific item of equipment, but at modifications made to the entire silencing system of which a specific item of equipment forms a part.

83. It follows, in my view, that fitting an aftermarket exhaust to a motorbike constitutes modifying its silencing device.

Partial Prohibition

84. Leaving aside the exceptions referred to above, the prohibition contained in subsection 10(1)(d) and section 11 of the Regulations is only a partial prohibition because modifying a vehicle's silencing device, or driving a vehicle on a road with a modified silencing device, is prohibited only if the modification results in the effectiveness of the device being reduced, or likely to be so. It is not an outright prohibition or blanket-ban on any kind of modification to a vehicle's silencing device (or silencing system).

85. In other words, pursuant to sub-section 10(1)(d) and section 11 of the Regulations, modifying a vehicle's silencing device, or driving a vehicle on a road with a modified silencing device, is permitted if the modification does not reduce the effectiveness of the device.

86. That is important because other modifications are prohibited outright. For example, sub-section 10(1)(a) of the Regulations prohibits, absolutely, a person from modifying the chassis of a light vehicle (subject, of course, to any applicable exceptions in sub-section 10(2) of the Regulations).

87. Accordingly, simply having an aftermarket exhaust fitted to a motorbike cannot result in a defect notice being issued, nor should it attract a police caution, for that reason alone.

The Inconsistency

88. What then arises (in addition to the uncertainty referred to above in relation to the meaning or effect of the National Code of Practice) is an inconsistency or tension between:

- (a) on the one hand:
- (i) section 135 of the Vehicle Standards, which prescribes maximum stationary noise levels for non-ADR 83/00 certified vehicles;
- (ii) alternatively, section 138 of the Vehicle Standards, which permits ADR 83/00 certified vehicles to have a maximum stationary noise level that is no more than 5dB(A) higher than the certified noise level established for those vehicles that is, 5dB(A) louder than the certified noise level; and

- (iii) sub-sections 5(1)(a)(v) and 5(1)(a)(vi) of the Regulations, which permits optional equipment which, for the reasons stated above, includes an aftermarket exhaust to be fitted to a vehicle if it complies with the Vehicle Standards, including the applicable stationary noise level; and
- (b) on the other hand, sub-section 10(1)(d) and section 11 of the Regulations, which prohibit modifying a vehicle's silencing device, or driving a vehicle on a road with a modified silencing device, if the modification results in the effectiveness of the device being reduced that is, if the vehicle's exhaust becomes louder.
- 89. In relation to non-ADR 83/00 certified vehicles, the question that arises is whether fitting an aftermarket exhaust to a motorbike that results in an increase to its stationary noise level, but which increase does not exceed the prescribed maximum stationary noise level is:
- (a) permitted by sub-sections 5(1)(a)(v) and 5(1)(a)(vi) of the Regulations and section 135 of the Vehicle Standards; or
- (b) prohibited by sub-section 10(1)(d) and section 11 of the Regulations.
- 90. Similarly, in relation to ADR 83/00 certified vehicles, the question that arises is whether fitting an aftermarket exhaust to a motorbike that results in an increase of no more than 5dB(A) to its maximum stationary noise level over its certified noise level established for that particular motorbike is:
- (a) permitted by sub-sections 5(1)(a)(v) and 5(1)(a)(vi) of the Regulations and section 138 of the Vehicle Standards; or
- (b) prohibited by sub-section 10(1)(d) and section 11 of the Regulations.
- 91. Logically, these things cannot be both permitted and prohibited at the same time.
- 92. Where statutory provisions are seemingly at odds, as they are here, the inconsistency or tension is to be resolved, if possible, by construing them that is, interpreting or reading them in a manner that gives each provision meaningful operation and effect.
- 93. One possibility is to read the prohibition on modifications contained in subsection 10(1)(d) and section 11 of the Regulations as applying beyond the stationary noise level which the vehicle's silencing system achieved prior to the modifications. This interpretation is supported by the consideration that these sections require a "before and after" comparison, between:
- (a) the effectiveness of the silencing system pre-modification; and
- (b) its effectiveness post-modification.
- 94. Such an interpretation would, however, lead to entirely bizarre and obviously unintended consequences. To give a simple example, if the motorbike were a 2015 Aprilia Tuono 1100, certified to ADR 83/00 at a noise level of 107db(A) at 5500rpm, and with a maximum permitted stationary noise level of 112db(A) at 5500rpm being 107db(A) plus 5dB(A) that motorbike, in its pre-modified state, may be expected to have a stationary noise level of between 107db(A) and 112db(A) at 5500rpm.

 95. But it might well be the fact that, immediately prior to any modifications, the silencing system was either more or less effective than was contemplated by its original or OEM specifications. Either way, it would be the actual effectiveness of the silencing system, immediately prior to any modifications, rather than its nominal or intended effectiveness, which sets the ceiling on what is permissible under sub-section 10(1)(d) and section 11 of the Regulations.
- 96. If on an earlier occasion the owner (or a previous owner) had modified the silencing system to increase its efficacy reducing the stationary noise level at 5500rpm to (say) 80db(A) that figure would represent the maximum permitted under sub-section 10(1)(d) and section 11 of the Regulations. But if the silencing system had been damaged or deteriorated to the extent that the stationary noise level at 5,500

- rpm had increased to (say) 120db(A), (4) it is that figure which would represent the maximum permitted under sub-section 10(1)(d) and section 11 of the Regulations.
- (4) This would not necessarily involve any infringement of the law, since the requirements of section 5 of the Regulations apply only where a light vehicle is "drive[n] or park[ed] ... on a road". A motorbike which is kept and ridden exclusively on private property is not required to have any silencing system. On the construction of section 10(1)(d) and section 11 of the Regulations which is presently under discussion, such a motorbike could lawfully be "modified" by fitting an entirely inadequate silencing device albeit one which is better than no silencing device at all and then lawfully driven on the road. There would be no breach of section 10(1)(d) or section 11 of the Regulations, as the post-modification silencing system would (on any view) be more effective than what existed immediately prior to the modification.
- 97. On the one hand, it seems exceedingly unlikely that the legislature intended subsection 10(1)(d) and section 11 of the Regulations to operate such that the owner of a motorbike is permitted to make modifications which do not comply with section 135 or 138 (as applicable) of the Vehicle Standards, simply because the motorbike was non-compliant with section 135 or 138 (as applicable) of the Vehicle Standards immediately before the modifications were carried out.
- 98. On the other hand, it also seems improbable that the legislature intended subsection 10(1)(d) and section 11 of the Regulations to operate such that the owner of a motorbike who wishes to modify the existing silencing system is limited to a noise level which may be lower (perhaps significantly lower) than the maximum permitted for that motorbike under section 135 or 138 (as applicable) of the Vehicle Standards.
- 99. Another reason why this interpretation should be rejected is that, in practical terms, it would make any prosecution impossible. In every case, the prosecutor would have to establish the motorbike's actual noise output immediately prior to the modifications, so as to demonstrate that the modifications had a negative impact on the efficacy of the silencing system. Absent an unguarded admission by the owner of the motorbike which could be used as an "admission against interest" such as an admission that the motorbike is significantly noisier since the modifications were made the prosecution could never discharge the onus of proof.

The Proper Construction

- 100. For these reasons, I prefer a construction pursuant to which sub-section 10(1)(d) and section 11 of the Regulations require that a comparison be made, not with the actual efficiency of the motorbike's silencing system immediately prior to any modifications, but with what was lawfully permissible immediately prior to any modifications.
- 101. Such a construction avoids the absurd consequences which would flow from a more literal reading of the sections. It also obviates the risk that, on a literal reading of the sections, no successful prosecution could ever be brought.
- 102. Therefore, in relation to non-ADR 83/00 certified vehicles, the proper construction and effect of those provisions is, in my view, to read the prohibition on modifications contained in sub-section 10(1)(d) and section 11 of the Regulations as applying beyond the maximum stationary noise level provided for in section 135 of the Vehicle Standards.
- 103. Accordingly, in relation to non-ADR 83/00 certified vehicles, sub-section 10(1)(d) of the Regulations ought to be construed and understood as providing:

Modifying light vehicle

- (1) A person must not...
- (d) modify a light motor vehicle's silencing device if the modification reduces, or is likely to reduce, the effectiveness of the device such that it exceeds the stationary noise level prescribed in section 135 of the Vehicle Standards.

Maximum penalty—20 penalty units.

104. Similarly, in relation to non-ADR 83/00 certified vehicles, section 11 of the Regulations ought to be construed and understood as providing:

Modified silencing device

A person must not drive a light motor vehicle on a road if the vehicle's silencing device has been modified to reduce, or to be likely to reduce, the effectiveness of the device <u>such that it exceeds the stationary noise level prescribed in section 135 of the Vehicle Standards</u>.

Maximum penalty—20 penalty units.

105. In relation to ADR 83/00 certified vehicles, in my view, the proper construction and effect of those provisions is to read the prohibition on modifications provided for in sub-section 10(1)(d) and section 11 of the Regulations as applying after allowance is made for the up to 5dB(A) increase in the maximum stationary noise level provided for in section 138 of the Vehicle Standards, since the 5dB(A) increase forms part of the definition of what was permissible pre-modification.

106. Accordingly, in relation to ADR 83/00 certified vehicles, sub-section 10(1)(d) of the Regulations ought to be construed and understood as providing:

Modifying light vehicle

- (1) A person must not...
- (d) modify a light motor vehicle's silencing device if the modification reduces, or is likely to reduce, the effectiveness of the device by more than 5dB(A) above the stationary noise level that was established for the motor vehicle when it was certified to ADR83/00.

Maximum penalty—20 penalty units.

107. Similarly, in relation to ADR 83/00 certified vehicles, section 11 of the Regulations ought to be construed and understood as providing:

Modified silencing device

A person must not drive a light motor vehicle on a road if the vehicle's silencing device has been modified to reduce, or to be likely to reduce, the effectiveness of the device by more than 5dB(A) above the stationary noise level that was established for the motor vehicle when it was certified to ADR 83/00.

Maximum penalty—20 penalty units.

108. Read in that way, each provision is given meaning and operation and the inconsistency or tension is resolved. No absurd or patently unintended consequences flow from such a reading; nor will it imperil the

prospects of a successful prosecution in cases where a motorbike has been modified in a way which exceeds the maximum noise levels permitted under sections 135 or 138 of the Vehicle Standards. 109. Further, read in that way, the uncertainty contained in the National Code of Practice in relation to noise emissions and their testing would also be avoided.

110. Returning to the example of a 2015 Aprilia Tuono 1100, fitting an aftermarket exhaust to that motorbike that results in a stationary noise level of no more than 112dB(A), being an increase of no more than 5dB(A) over its ADR 83/00 certified stationary noise level, will not contravene the Regulations or the Vehicle Standards.

Part E — Removing a Catalytic Converter

- 111. The Regulations are silent as to the issue concerning removing a catalytic converter from an exhaust system of a motorbike, or replacing the system with an aftermarket exhaust that does not contain a catalytic converter. Similarly, the Vehicle Standards do not contain any requirement for a motorbike to contain a catalytic converter.
- 112. The only way that such a requirement might be "read into" the legislation is by construing the words "the effectiveness of the device" in each of sub-section 10(1)(d) and section 11 of the Regulations as extending to include the effectiveness of a silencing device, not merely as a device for reducing noise levels, but also as a device for reducing emissions levels.
- 113. But, in my view, such an interpretation is unsustainable for three reasons:
- (a) in the first place, such an interpretation depends on a comparison between the post-modification effectiveness of the silencing device and its actual effectiveness immediately prior to any modifications. For the reasons already advanced, that is not the correct comparison; rather, the postmodification effectiveness of the silencing device is to be compared with its mandated effectiveness immediately prior to any modifications. And as there is no statutory requirement for a motorbike to be fitted with a catalytic converter, a modification involving removal of a catalytic converter does not diminish the mandated effectiveness of the silencing system;
- (b) secondly, whilst (for obvious reasons) a catalytic converter is usually integral to a vehicle's exhaust system, it cannot accurately be described as a "silencing device". The fact that a catalytic converter is physically located in, or forms part of, the same item of equipment which also muffles sound emissions does not make it a "silencing device"; and
- (c) thirdly, where sub-section 10(1)(d) and section 11 of the Regulations refer to "the effectiveness of the device", it is clear from the context that they are concerned with the effectiveness of a silencing device as a silencing device. It cannot be understood as referring to the device's "effectiveness" in controlling emissions, any more than it can be understood as referring to the device's "effectiveness" in enhancing (or retarding) fuel efficiency; or its "effectiveness" in reducing (or increasing) vibrations affecting the

comfort of riders or pillion passengers; or its "effectiveness" in increasing (or reducing) the motorbike's torque or speed; or, indeed, its "effectiveness" as an ornament to improve (or diminish) the motorbike' aesthetic appeal. (5)

(5) Logically, the comparison of "effectiveness" required by sections 10(1)(d) and 11 of the Regulations – specifically, whether the device is "less effective" following modifications – is only possible if there is a single variable; otherwise, one is faced with intractable questions whether enhanced "effectiveness"

in one respect is outweighed by diminished "effectiveness" in another respect. So, for example, a modification which reduces a device's effectiveness in respect of noise reduction, but at the same time increases its effectiveness in terms of emission control and fuel economy, cannot simply be judged to be "less effective" or "no less effective".

- 114. Accordingly, it would appear that a motorbike cannot be defective just because its exhaust system does not contain a catalytic converter.
- 115. Of course, if removing a catalytic converter from an exhaust system of a motorbike, or replacing the system with an aftermarket exhaust that does not contain a catalytic converter, causes the motorbike to exceed the maximum stationary noise levels prescribed in sections 135 or 138 of the Vehicle Standards, then the motorbike will be defective on that basis.

Part F — Conclusions

- 116. Simply having an aftermarket exhaust fitted to a motorcycle does not contravene any provision of the Regulations or the Vehicle Standards. It cannot result in a defect notice being issued, nor should it attract a police caution, for that reason alone.
- 117. To be issued with a defect notice for contravention of sections 5, 10 or 11 of the Regulations on the grounds of excessive noise level emissions, the noise level must exceed the maximum stationary noise levels prescribed in sections 135 or 138 of the Vehicle Standards.
- 118. In relation to non-ADR 83/00 certified vehicles, prohibition on modifications provided for in sub-section 10(1)(d) and section 11 of the Regulations should be read as only applying beyond the maximum stationary noise level provided for in section 135 of the Vehicle Standards.
- 119. In relation to ADR 83/00 certified vehicles, the prohibition on modifications provided for in sub-section 10(1)(d) and section 11 of the Regulations should be read as only applying after allowance is made for the 5dB(A) increase in the maximum stationary noise level provided for in section 138 of the Vehicle Standards.
- 120. In my view, it will not be accepted by a Court that any police officer, by virtue of his or her occupation, has sufficient expertise in the fields of acoustics or sound engineering such that he or she can determine the noise level of a particular exhaust (which may be contrasted with its being accepted by some magistrates that a police officer is able to judge a motor vehicle's speed by virtue of his or her occupation). It may also be doubted whether a police officer conducting ordinary traffic duties and without specialised training could effectively and reliably set up and operate a sound level meter or other device that measures noise levels.
- 121. In the absence of the noise level of the allegedly offending motorbike being tested in accordance with National Stationary Exhaust Noise Test Procedures for In-Service Motor Vehicles September 2006 pursuant to section 131(1) of the Vehicle Standards by a person having relevant expertise or training, a defect notice issued on the basis of a police officer's subjective judgment will not, in my view, sustain a conviction.
- 122. Finally, a motorbike cannot be deemed defective just because its exhaust system does not contain a catalytic converter.

Levente Jurth Chambers 20 January 2016