

## Noise exposure standards

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### Concept

The purpose of this guidance note is to clarify the noise exposure standards that NOPSEMA will enforce at offshore petroleum and greenhouse gas storage facilities under the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009 and any relevant state or Northern Territory equivalent where powers have been conferred on NOPSEMA.

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## 1. Legislative basis

The overriding legislative requirements applicable to noise exposure are the duties that are set out in Clauses 9 to 15 of Schedule 3 to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGs Act), and in the corresponding clauses of the relevant state and Northern Territory Acts, where powers have been conferred on NOPSEMA. References hereafter are to the Commonwealth (Cth) legislation.

These duties require responsible parties to take all reasonably practicable steps to protect the health and safety of persons at or near a facility. This includes any risks to health and safety that may arise through exposure to noise. In addition, the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009 (the Safety Regulations) require the operator of any facility, as part of the safety case development process, to identify all hazards to health and safety, assess the risks and put in place control measures that reduce the risks to as low as reasonably practicable, and to do this within a comprehensive and integrated safety management system.

## 2. National noise exposure standard and code of practice

The *National Standard for Occupational Noise* [NOHSC: 1007(2000)] is addressed in Safety Regulation 3.6. The standard provides for the following:

- The national standard for exposure to noise in the occupational environment is an eight-hour equivalent continuous A-weighted sound pressure level LAeq,8h, of 85dB(A).
- For peak noise, the national standard is a C-weighted peak sound pressure level, LC, peak of 140dB(C).
- The exposure to noise is taken to be that measured at the employee's ear position without taking into account any protection which may be afforded by personal hearing protectors.

The intent is that noise exposure should be controlled in the first instance by either removing the source of the noise or implementing all reasonably practicable engineering measures to reduce noise emission. If the implementation of engineering measures does not result in compliance with the exposure standard, then all reasonably practicable administrative controls should be implemented to reduce personnel exposure. If the implementation of administrative controls still does not result in the exposure standard being met, then personal hearing protectors may be used, but it should be stressed that this is acceptable only if the noise exposure standard cannot reasonably be met by the engineering or administrative approaches.

## 3. Compliance and enforcement

It is not an offence to exceed the NOHSC: 1007(2000) noise exposure standard, provided that:

- the duty holder manages noise in a manner consistent with the provisions of the *National Code of Practice for Occupational Noise* NOHSC:2009(2004); and
- the level of noise exposure, after allowing for the protection offered by hearing protectors, does not exceed an LAeq,8h, of 85dB(A) or an LC peak of 140dB(C).

A duty holder who fails to comply with this regulation may be prosecuted and fined up to 20 penalty units; however, if the duty holder is a body corporate, penalties may be five times the standard penalty.

The occupational noise exposure standard sets a maximum exposure standard, and does not override the requirement for the risk to health and safety from noise exposure to be reduced to a level that is as low as reasonably practicable at all times and at all locations.

When deemed to be reasonably practicable, NOPSEMA will expect the level of noise to be managed to be at or below the standard level, without any need to rely on hearing protection.

#### **4. Noise levels in living quarters, offices, etc.**

There are no prescriptive regulations that specifically provide for acceptable noise levels within accommodation areas on offshore petroleum facilities, however, NOPSEMA expects that noise levels in areas such as control rooms, offices, cabins and dining/recreation areas will be significantly below the exposure standard for occupational noise.

Noise levels for living quarters, offices, etc. at fixed platforms are set out in Australian Standard AS/NZS 2107-2000: *Acoustics—recommended design sound levels and reverberation times for building interiors*, while those for vessels and offshore mobile platforms have previously been set out in AS 2254-1988: *Acoustics – recommended noise levels for various areas of occupancy in vessels and offshore mobile platforms*. AS 2254-1988 was made obsolete in 2014.

Obsolescence of a publication is usually initiated when the responsible Committee determines that the product is not recommended for new equipment or as a current practice, but needs to be retained in order to provide for servicing of existing equipment or requirements. Obsolete Standards are still available from <http://infostore.saiglobal.com/store/>

Operators may now refer to the International Maritime Organisation (IMO) Code on noise levels on board ships. (2014). This code applies to new ships of a gross tonnage of 1,600 and above. The Code does not apply to dynamically supported craft, pipe-laying barges and mobile offshore drilling units.

Additional information is available in the [Technical Report – Offshore Petroleum Facility Accommodation - July 2011](#), issued by NOPSAs in 2010. The purpose of this technical report is to provide the Australian offshore petroleum industry with information in the form of high-level goals that encompass current international offshore petroleum industry good practice; and practical information to assist operators to achieve these goals. This technical report is for information purposes only, and summarises global industry good practice and research. It is not an exhaustive summary of such practices. Where possible, references have been provided throughout. It should be noted that this document is not intended to act as a standard, code of practice or regulation in any sense.

#### **5. References, acknowledgements and notes**

##### **Legislation**

*Offshore Petroleum and Greenhouse Gas Storage Act 2006*, Act No. 14 of 2006 as amended, Schedule 3 – Occupational Health and Safety, Commonwealth of Australia

Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009, Select Legislative Instrument 2009 No. 382 as amended made under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*. Commonwealth of Australia

### **Other sources**

National Occupational Health and Safety Commission, *National Standard for Occupational Noise*, cat. no. [NOHSC: 1007(2000)], Australian Government Publishing Service, Canberra, 2000

National Occupational Health and Safety Commission, *National Code of Practice for Noise Management and Protection of Hearing at Work*, cat. no. [NOHSC: 2009(2004)], Australian Government Publishing Service, Canberra, 2004

Standards Australia, Australian/New Zealand Standard, *Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors*, cat. no. AS/NZS 2107: 2000, Standards Australia, Sydney, 2000

Standards Australia, Australian/New Zealand Standard, *Acoustics – Recommended Noise Levels for Various Areas of Occupancy in Vessels and Offshore Mobile Platforms*, cat. no. AS 2254: 1988, Standards Australia, Sydney, 2000

[SVT Engineering Consultants, Technical Report – Offshore Petroleum Facility Accommodation, SVT, Perth, 2011](#)

### **Disclaimer**

This document is intended to provide guidance as to the approach that NOPSEMA takes in carrying out its regulatory functions under the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and associated Regulations, and any state or Northern Territory equivalent, where powers have been conferred on NOPSEMA. Any views expressed in this guidance should not be relied on as advice on the law, nor treated as a substitute for legal advice in any relevant situation.