NEW EDITION OF TECHNICAL GUIDELINE ON BOUNDARY NOISE LIMITS FOR AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEMS IN NON-INDUSTRIAL BUILDINGS

Reference: NEA/EP/PDD/05-00075
Date: 14 February 2018

CIRCULAR TO PROFESSIONAL INSTITUTIONS

Who should know
Developers, Architects, Engineers

Dear Sir/Madam,


We would like to notify all Qualified Persons (QPs) that new edition of the Technical Guideline on Boundary Noise Limits for Air Conditioning and Mechanical Ventilation Systems in Non-Industrial Buildings 2018 Edition has been released.

2. The review of the guideline was done in consultation with the industries (Singapore Institute of Architects, Institute of Engineers Singapore, the Association of Consulting Engineers Singapore, the Singapore Contractor Association Ltd), the academia (National University of Singapore) and the government agencies (Building and Construction Authority, Urban Redevelopment Authority). This guideline sets out the maximum boundary noise emission limits for air conditioning and mechanical ventilation systems in non-industrial buildings.


5. Please note that it is the responsibility of the QP to ensure compliance with the environmental related Acts, Regulations, Codes of Practice and guidelines to prevent any adverse impact to public health and the environment.
6. For further enquiries, please contact NEA Hotline at 1800-2255 632 or submit them electronically via the Online Feedback Form at http://www.nea.gov.sg/corporate-functions/feedback or mobile application (myENV). We would appreciate it if you could disseminate the content of this circular to your members.

Thank you.

Sincerely

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Koh Chin Yong
Director
Central Building Plan Department

Cc: The President
    Singapore Institute of Architects (SIA)

    The President
    Association of Consulting Engineers Singapore (ACES)

    The President
    The Institute of Engineers Singapore (IES)

    The President
    The Singapore Contractors Association Ltd (SCAL)

    The President
    Real Estate Developers' Association of Singapore (REDAS)
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<th>Section</th>
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<tr>
<td><strong>Section 1 – Scope</strong></td>
<td>The list of the industries, academia and government agencies involved in the review of the Guideline has been updated.</td>
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<td><strong>Section 2 – Definitions</strong></td>
<td>Noise sensitive premises, residential premises, commercial/other premises and factory premises were defined in this section.</td>
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<td><strong>Section 3 – Boundary Noise Limits</strong></td>
<td>Boundary noise limits other than noise sensitive premises and residential premises had been included in this section. A footnote is added to advise that the more stringent residential noise limit should be used if the affected premise is a mixed use development comprising both commercial and residential and Qualified Persons should make reference to URA master plan to check on intended use of adjacent premises.</td>
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<td><strong>Section 4 – Measurement Points</strong></td>
<td>The noise measurement should be taken at least 1m from the noise source and at the same height as the equipment.</td>
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<td>- (b) for equipment that is installed above ground level</td>
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<td><strong>Section 8 – Design Considerations</strong></td>
<td>This is a new section that provides general guidance in the design of mechanical ventilation system(s) in a proposed development where practical.</td>
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<td><strong>Annex 1 – Location for Noise Measurement</strong></td>
<td>Footnotes have been added on recommendations and to conduct noise measurement when a noise barrier is installed if it is not practical to measure at 1m away from mechanical ventilation outlet.</td>
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<td><strong>Table 1.1 – Modifying Factor Corrections</strong></td>
<td>Narrow-band Frequency Analysis (preferably Fast Fourier Transform (FFT) analysis) is to be carried out according to ISO1996-2 for Tonal Noise. A footnote is added that air-conditioning compressors, bifurcated kitchen exhaust and axial fans could cause tonal noise.</td>
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