

Background Memo

Document:	Specific Accreditation Criteria: ISO IEC 17025 Application Document, Calibration Annex, Acoustic, ultrasonic and vibration measurements
Date:	April 2025
Key changes:	<p>Sound level meters</p> <p>An addition has been drafted to the NATA document 'Specific Accreditation Criteria - ISO/IEC 17025 Application Document, Calibration – Annex: Acoustic, ultrasound and vibration measurement' to clarify the periodic testing requirements when using IEC 61672-3 for level linearity on the reference level range of sound level meters.</p>
<p>Background:</p> <p>There is ambiguity in the wording for the linearity requirements of subclauses 16.4 and 16.5 of IEC 61672-3:2013 (identical to AS/NZS IEC 61672.3:2019) for sound level meters. These two subclauses refer to the acceptable limits given in IEC 61672-1:2013 (specifications) but do not identify the relevant subclauses.</p> <p>The investigation into the ambiguity involved the NATA Calibration AAC and included feedback nationally and internationally. This included approaching the acoustic standards sections of national measurement institutes within several countries. As an outcome of this process, NATA identified that the Japanese translated version of IEC 61672-3:2013 (Japanese Industrial Standard JIS C 1509-3:2019 "Electroacoustics -- Sound level meters -- Part 3: Periodic tests") did provide clarification of what applicable level linearity deviation acceptance limits should be applied, which also aligned with other advice received by NATA. The JIS C 1509-3:2019 for the applicable acceptance limits under subclauses 16.4 and 16.5 includes both 5.6.5 and 5.6.6 subclauses in JIS C 1509-1:2017 (equivalent to IEC 61672-1:2013).</p> <p>The proposed changes to the annex include the acceptance limits described by subclause 5.6.6 of IEC 61672-1:2013 for the periodic calibration of sound level meters for linearity. This is included on page 9 of the annex under the heading of <i>Sound level meters</i>.</p> <p>The addition is to ensure that the advice within the NATA application document is current, relevant, and aligns with national and international expectations for accredited calibration laboratories.</p>	
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