

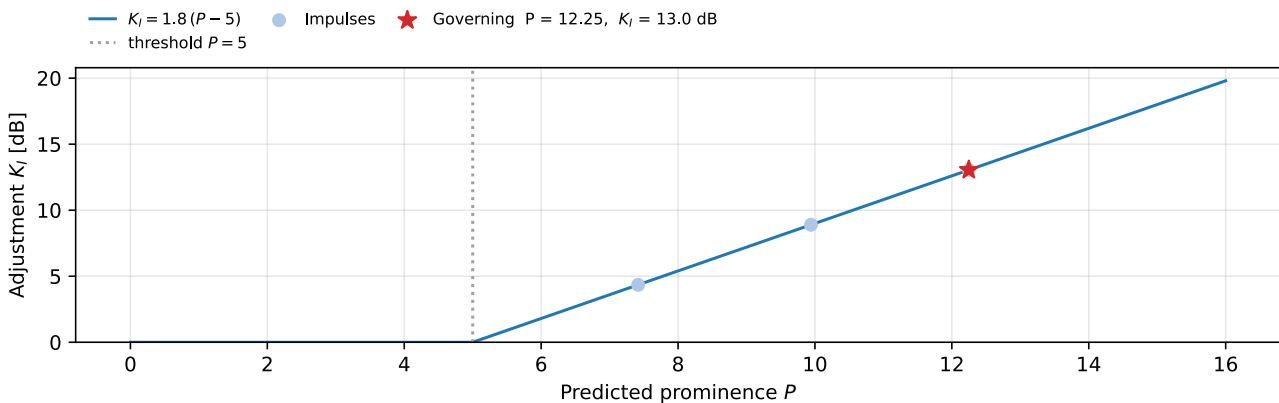
Impulsive sound prominence assessment

ISO 1996-2 assessment of impulsive-sound prominence and the L_{Aeq} adjustment per NT ACOU 112:2002 (ISO/PAS 1996-3:2022).

Source / situation:	Pile-driving site, intermittent hammering	Client:	Example client
Measurement position:	Free field, 25 m from source (example)	Instrumentation:	Class 1 SLM (IEC 61672-1), L_{pAF} logged at 100 ms
Date of test:	2026-07-21	Assessment period:	30 min

Candidate impulses

Impulse	OR [dB/s]	LD [dB]	P	Onset > 10 dB/s
1	1200	32.0	12.25	● Yes
2	300	18.0	9.94	● Yes
3	60	11.0	7.42	● Yes



Governing prominence $P = 12.25$ L_{Aeq}
adjustment $K_I = 13.0$ dB

Governing impulse: OR = 1200 dB/s, LD = 32.0 dB

Result vs requirement: $P = 12.25$, required $\leq 10.00 \rightarrow$ **FAIL**

A prominent impulse is present (governing $P = 12.25 > 5$); the L_{Aeq} adjustment $K_I = 13.0$ dB (NT ACOU 112:2002 Formula 2) applies.

The predicted prominence $P = 3 \lg(OR) + 2 \lg(LD)$ combines the onset rate OR (dB/s) and the level difference LD (dB) of each impulse (NT ACOU 112:2002, clause 7, Formula 1); the governing value is the highest P over a 30-minute period among impulses with an onset rate above 10 dB/s (clauses 4.5/8).

The L_{Aeq} adjustment $K_I = 1.8 (P - 5)$ dB for $P > 5$, else 0 dB, is applied to $L_{Aeq,30min}$ on the basis of the single impulse with the highest prominence (clause 8, Formula 2).

Laboratory: Phonometry reference example

Report no.: EXAMPLE-NTACOU112

Date: 2026-07-21

Operator: phonometry Signature: _____

■ The results relate only to the tested specimen.

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