

ANSI/ASA S12.2-2019

AMERICAN NATIONAL STANDARD

Criteria for Evaluating Room Noise

ANSI/ASA S12.2-2019

Accredited Standards Committee S12, Noise

Standards Secretariat
Acoustical Society of America
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Criteria for Evaluating Room Noise

Secretariat:

Acoustical Society of America

Approved on May 21, 2019 by:

American National Standards Institute, Inc.

Abstract

This Standard provides three primary methods for evaluating room noise: a survey method that employs the A-weighted sound level; an engineering method that employs expanded noise criteria (NC) curves; and a method for evaluating low-frequency fluctuating noise using room noise criterion (RNC) curves.

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Contents

1	Scope	1
2	Normative references	1
3	Terms, definitions, abbreviations, and symbols	2
4	Significance and use of this Standard and deviations from the previous ANSI/ASA S12.2-2008... 4	
5	Criteria	4
5.1	A-weighted criteria	4
5.2	NC (noise criteria) curves	5
5.3	RNC (room noise criterion)	9
6	Acoustically induced vibrations and rattles	16
Annex A (informative)	Example evaluations using RNC	17
A.1	Evaluation of room noise using the RNC curves	17
A.2	Example 1 — Excessive turbulence (large standard deviation) and minimal surging	17
A.3	Example 2 — Strong surging and strong turbulence	20
Annex B (informative)	A discussion of the criteria	23
B.1	Discussion of RC, NC, and NCB criteria curves	23
B.2	Discussion of RNC criteria curves	24
Annex C (informative)	Recommended noise level criteria for various occupied activity areas	25
C.1	Recommended A-weighted criteria	25
C.2	Recommended NC and RNC criteria	26
Annex D (informative)	RC Mark II	29
D.1	Introduction	29
D.2	Room criterion curves	29
D.3	Spectrum classification	29
D.4	Method for calculating an RC value	32
D.5	Quality assessment index (QAI)	32
D.6	Recommended criteria	32
Annex E (informative)	Criteria for recording studios and other low-noise situations	34
E.1	Criteria	34
E.2	Recording studio "audibility" threshold curves	34
Bibliography	36

Figures

Figure 1 — Noise criteria (NC) curves – The example shows an NC-51 (125 Hz) spectrum	7
Figure 2 — Room noise criteria (RNC) curves	11

Figure A.1 — The spectrum of Example 1 plotted on the RNC curves. In this example sound exhibits no surging, but it does include large turbulence. The standard deviation of the sound level in the 3-band sum combined 16, 31.5 and 63-Hz octave bands is 3.2 dB. Using the tangent method, the highest RNC curve is contacted by the 31.5-Hz octave band and has a value of RNC-40. So this spectrum is reported as an RNC-40 (31.5 Hz). The correction factor of 3.6 dB that is added to the measured LEQ in the 31-Hz octave band changes this spectrum from an RNC-31 (8 kHz) to an RNC-40 (31.5 Hz)..... 19

Figure A.2 — The spectrum of Example 2 plotted on the RNC curves. In this example sound exhibits 15-dB peak-to-peak sinusoidal surging and large turbulence. The standard deviation of the sound level in the 3-band sum combined 16, 31.5 and 63-Hz octave bands is 3.1 dB. Using the tangent method, the highest RNC curve is contacted by the 31.5-Hz octave band and has a value of RNC-44. So this spectrum is reported as an RNC-44 (31.5 Hz). The correction factor of 11.3 dB that is added to the measured LEQ in the 31.5-Hz octave band changes this spectrum from an RNC-25 (250 Hz) to an RNC-44 (31.5 Hz). 22

Figure D.1 — Room Criteria Mark II curves 31

Tables

Table 1 — Octave-band sound levels to the nearest decibel for noise criteria curves [15, p. 893]..... 6

Table 2 — Measured sound pressure deviations from an NC (SIL) curve that may lead to serious complaints 8

Table 3 — Screening criteria to determine the presence of large random fluctuations 10

Table 4 — Octave-band sound pressure levels to the nearest decibel for room noise criteria curves [10] 10

Table 5 — Coefficients to calculate an RNC value from a given octave-band level, or an octave-band level from a given RNC value — see Equations (1) and (2) 12

Table 6 — Measured sound pressure levels for perceptible vibration and rattles in lightweight wall and ceiling structures 16

Table A.1 — This table shows the first 5 samples for Example 1 18

Table A.2 — This table contains the summary data for Example 1 18

Table A.3 — These data represent artificially generated Gaussian noise. This table shows the first 20 samples for Example 2. The sample period is 100 ms and the octave-band levels are fast-time weighted. The OASPL has been calculated as the energy sum of the 10 indicated octave-band levels. The “3-band sum” is the energy sum of the 16, 31.5, and 63-Hz octave-band levels after 14 dB have been subtracted from the 16-Hz octave-band levels and 14 dB have been added to the 63-Hz octave-band levels. Surging has been implemented as a sine wave with a 2-s period and a 15-dB peak-to-peak amplitude. 20

Table A.4 — This table contains the summary data for Example 2. The LEQ is the energy average for all time samples represented by the indicated column. The 3-band sum correction of 11.3 dB is added to the 31.5-Hz octave band LEQ and the 1.6-dB correction at 125 Hz is added to the LEQ in this octave band. Therefore, the reported adjusted 31.5-Hz octave-band level is 73.1 (the LEQ

of 61.8 in the 31.5-Hz octave band plus the adjustment of 11.3 dB). The reported level in the 125-Hz octave band is just the 125-Hz LEQ plus 1.6.	21
Table C.1 — A-weighted (unoccupied) sound level criteria for rooms of various uses [15, p. 890]	25
Table C.2 — NC and RNC (unoccupied) criteria values for rooms of various uses [15, p. 891]	26
Table D.1 — Room Criteria Mark II (RC) curves.....	30
Table D.2 — RC Mark II criteria for various activity areas excluding the noise due to human occupancy. The (N) stands for a neutral spectrum as defined in Clause D.3.1.....	33
Table E.1 — Recording studio "audibility" threshold for one-third octave bands — see [8]	35

Foreword

[This Foreword is for information only, and is not a part of the American National Standard ANSI/ASA S12.2-2019 American National Standard Criteria for Evaluating Room Noise. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the standard.]

This standard comprises a part of a group of definitions, standards, and specifications for use in noise. It was developed and approved by Accredited Standards Committee S12 Noise, under its approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI). The Scope of Accredited Standards Committee S12 is as follows:

Standards, specifications, and terminology in the field of acoustical noise pertaining to methods of measurement, evaluation, and control, including biological safety, tolerance, and comfort, and physical acoustics as related to environmental and occupational noise.

This standard revises and replaces ANSI/ASA S12.2-2008, which has been withdrawn and technically revised. Changes have been made to the NC and dBA values for some spaces. The RC Mark II procedures of the 2008 edition remain briefly discussed in an informative Annex. This Standard provides three primary methods for evaluating room noise: a survey method that employs the A-weighted sound level; an engineering method that employs expanded noise criteria (NC) curves; and a method for evaluating low-frequency fluctuating noise using room noise criterion (RNC) curves.

This standard is not comparable to any existing ISO Standard.

At the time this Standard was submitted to Accredited Standards Committee S12, Noise, for approval, the membership was as follows:

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This is a preview of "ANSI/ASA S12.2-2019". [Click here to purchase the full version from the ANSI store.](#)

American National Standard

Criteria for Evaluating Room Noise

1 Scope

The three primary methods for evaluating room noise are:

1. The survey method that employs the A-weighted sound level;
2. The engineering method that employs noise criteria (NC) curves; and
3. The method for evaluating low-frequency fluctuating noise using room noise criteria (RNC) curves.

This Standard also contains one ancillary set of criteria curves for evaluating acoustically induced vibrations or rattles.

Requirements are given in the body of the Standard for determining whether a:

1. Measured or estimated A-weighted sound level satisfies a specified noise criterion.
2. Set of octave-band sound pressure levels satisfies a specified NC curve.
3. Time-series of octave-band sound pressure levels satisfies a specified RNC curve.
4. Table of octave-band sound pressure levels that, when modulated by fluctuations at low frequencies, may cause perceptible vibrations or rattles in lightweight constructions.

Annex A presents examples of the use of RNC for evaluating measured or estimated sound level spectra in rooms.

Annex B presents a discussion of room criteria (RC), NC, balanced noise criteria (NCB), and RNC curves.

Annex C contains recommended noise level specifications for various occupied activity areas.

Annex D contains the procedures for use of the RC Mark II curves.

Annex E contains criteria for recording studios and other low-noise situations.

No guidance is given for the selection of equipment or the methods for measuring noise levels to be evaluated by the curves.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.