

NOISE CRITERION (NC)

Quick Explanation

An NC level is a single number rating of the noise spectrum within a space. A low number is quieter than a higher number. NC 15 is very quiet. NC 65 is very loud. NC levels are intended to be used for steady, continual background noise levels within a space, as opposed to specific noises or intermittent activity occurring there.

More Than You Wanted to Know

NC curves specify allowable sound pressure levels in octave bands over a specific portion of the audible range. They are used for engineering design and specification of building mechanical noise control elements. They are also used for existing spaces to determine if the mechanical noise levels are within the normally accepted range.

NC curves permit higher levels of low-frequency sound compared to mid and upper frequencies. This follows the general pattern of how people respond to sound over the audible range. Low-frequency sounds are generally less annoying than high-frequency sounds within the limits expressed by the various NC-curves.

In order to meet a particular NC curve no measured octave band value can exceed the values on the NC curve.

There are various metrics used to describe indoor ambient noise levels (dBA, RC, PNC, to name a few). Each of these has its supporters and detractors, and positive and negative features, but the NC metric is probably the most commonly used. The enclosed table shows the allowable sound levels at the octave bands centered from 125 Hz to 4,000 Hz for NC 25 and NC 35.

NC Graph Showing Noise Level of NC 35

