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# Assessment of noise-levels of generator-sets in seven cities of South-Southern Nigeria

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## Abstract

Noise pollution has been shown to be a global health hazard and this could be aggravated by the use of noise-emitting generators. Therefore, this study aims to determine the Sound Pressure Levels (SPLs), Sound Power Levels (L<sub>w</sub>) as well as Noisiness of sixty different models with various Power-ratings from fourteen generator brands, commonly used in homes/offices in seven cities covering South-Southern Nigeria. The results obtained between January 2013–December 2015 show that for nearly all generator brands, models and ratings, the values of (PNE<sub>Ls</sub>) exceed the Permissible Noise Exposure Limit (PNE<sub>L</sub>) recommended by WHO, USEPA and EN 90dB(A), 75dB(A) and 70dB(A) by 8hour and of and respectively for daytime safe human exposure. Also, the ‘Wilcoxon Signed Ranks Test’

analyses showed that the three (3) alternative hypotheses, and are statistically-significant and should be accepted – further implying that: the decibel-ratings of majority of these generator-models are evidently hazardous.

Keywords: [Generator-models](#), [Sound Pressure Level/Noise-Level](#), [Noisiness](#), [Sound Power Level](#), [Permissible Noise Exposure Limit](#)

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