

# Noise source and control measures

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The noise of an in-house generator in the maintenance building affecting the officers working in a nearby building of a business complex. As per energy conservation policy the complex is run on generator for a specific time period every day from 12 noon to 3 p. m. Work timing of the nearby offices are 9 a. m. to 6 p. m. five days a week and lunch break is from 1 a. m. to 2 p. m. Employer has provided earplugs or muffs (PPE) as a common control measure to each employees when discomfort was voiced, however, the problem remained with employees getting disturbed and anxious also showing poor performance and low productivity especially during the generator on-timings. Even customers calling in or visiting the office during the time complained and showed discomfort to the noise being generated along with the smell of burnt fuel prevalent in the air.

The company should not completely rely on PPE and let the discomfort affect the productivity and results of the company. They should make their Health Safety & Environmental Policy more effective by adopting a number of control measures than can improve the working conditions since the exposure is a daily recurring scenario.

An engineering treatment for the problem can be either at the source or at the noise transmission path or at the receiver. Generator being a noisy component is already placed in a separate building; however, the noise reaches outside and is unavoidable. The generator cannot be enclosed in a sound-absorbent enclosure since it requires proper ventilation and cooling systems. However, the office building and other surrounding building can be made soundproof by fitting sound absorbent materials such as flexible or fixed screens/windows or curtains of sound absorbent material that can prevent or lower the level of noise from outside entering the building. This <https://assignbuster.com/noise-source-and-control-measures/>

would also require the building to have an adequate indoor air ventilation system to avoid other discomforts. Further, the generator can be mounted on sturdy industrial rubber pads to reduce vibration. Since we can hardly do anything to avoid noise at the source, it can be reduced by adopting the above-mentioned methods to obstruct and reduce the noise level from reaching the receivers in the offices nearby. A natural remedy can be planting trees outside both maintenance building and surrounding the office building that can also act as a natural hindrance in obstructing the path of the sound waves.

An administrative control measure can be changing the officer's lunch timings from 2 p. m. to 3 p. m. that can allow them to return to work in a noise-free environment and give a pleasant effect after the break. Or they can opt for running the generator after work hours and during weekends only and make up for the energy conservation by introducing energy-saving policies and measures at work. These work practices may include using energy savers, switching off personal computers, air conditioners, printers, and excessive lights when going out for breaks, etc. Hence a combination of administrative and work practice control measures can also be adopted to reduce noise level coming from the maintenance building due to the generator.

#### References

American Welding Society AWS (2003). " Noise". Safety and Health Fact Sheet No. 3. Retrieved from < <http://www.aws.org/technical/facts/FACT-03.pdf>> International Labor Organization – ILO (n. d.) Controlling Hazards: Your Health and Safety at Work, A Collection of Modules. Retrieved from

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