

Testing to Identify and Rate Community Environmental Noise Sources

So, your facility has received many complaints from nearby residents concerning noise that they say is originating from your property. This is an all-too-common experience. Your facility has decided to investigate the noise complaints, unsure whether the allegations are true or false.

Your research identifies a few companies that might **possibly** be able to conduct community noise monitoring. You wonder what specific testing services are needed.

Following is a list of exterior noise monitoring services that are available:

- **Unattended monitoring:** testing should be carried out over a minimum of one 24 hour period, perhaps longer if required by the situation. It is impractical to have an operator remain at the test site for 24 hours to one week, so the test system should be capable of conducting the tests unattended.
- **Self-Powered:** in order to locate the test equipment at an optimum position to conduct the tests, the system should be self-powered from an internal battery, with sufficient charge to power the system for the duration of the test. More than likely, use of AC power will be impossible or impractical.
- **Weatherproof equipment:** precision test equipment must be protected from damage caused by weather at the test location. All equipment and cables should be specifically designed for use in any weather – hot sun, rain, wind, or freezing temperatures.
- **Report multiple noise level parameters:** while it might be possible to deploy a type of system that will measure one noise parameter at a time, it is highly desirable to document many parameters concurrently.
- **Record the frequency spectrum:** some simple systems are only able to report the single-number dB level of noise. The best systems can document the actual frequency spectrum of the noise in 30 or more 1/3 octave bands. Such information is essential in order to analyze the severity of noise and to develop noise mitigation strategies.
- **Noise "event" identification:** it is not uncommon for exterior noise to be comprised of mostly unobjectionable "background" noise. Sophisticated monitoring systems can be programmed to mark short-term individual noise "events" (noise that significantly exceeds the normal background noise) which constitute the basis for most noise complaints.
- **Audio recording:** it may be possible to identify some noise sources by reviewing the dB level and frequency spectrum of noise events. There is one sure way to determine what caused the noise – concurrently record the actual audio of the noise. When reviewed concurrently, the dB level, frequency spectrum, and actual audio will allow positive identification of the noise source. *You will find this service is available from very few companies providing on-site noise monitoring services.*

What companies can provide all of the services listed above? One company that can provide all of the services listed above is:



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