Contact: info@applus.com

Vibration Monitoring Services

Vibration monitoring is an invaluable way of assessing possible damage to existing buildings and infrastructure as a result of unwanted vibrations caused by programmed construction, demolition, blasting, or other activities. Pre- and post-vibration surveys of properties adjacent to a client-controlled site can help property owners by detecting, documenting, and monitoring pre-existing damage, where the condition monitoring and vibration analysis prior to large vibrations can identify conditions that may not previously have been apparent. Vibration condition monitoring and services, therefore, limit a contractor's liability in their projects.

THE Applus+ SOLUTION

The vibration monitoring services at Applus+ deploy highly experienced staff who have worked in many different environments and can therefore adjust to changes in the field. Applus+ responds rapidly to vibrations that are approaching the action levels defined by the client's engineers (who determine the 'permissible' vibration limits). The real-time vibration monitoring provided by our on-site team allows a contractor to adjust its processes immediately to eliminate large, possibly damaging vibrations.

Thanks to our wide geographical reach, we can provide local field experts while offering our clients access to office-based supervisory personnel, which helps to limit the cost to the client. Reporting is carried out daily.

Target customers

Vibration monitoring in construction can be instrumental in limiting liability for many types of clients undertaking a wide variety of projects involving a range of assets. Pipeline infrastructure, bridges, government buildings, hospitals, historic buildings and monuments and individual homes can all be monitored for potentially harmful vibrations.

Many public authorities require the vibration monitoring for certain types of construction, demolition or blasting projects. Vibration condition monitoring should begin prior to any substantial vibration-inducing activity so that a baseline of vibrations is recorded at the site. For instance, subway traffic may create a larger vibration signature than the construction's pile-driving at the site in question.

Applus+ can also perform blast vibration monitoring for a single day at a construction site or over the longer term, for example during the demolition of a large building.

Key customer benefits

Large vibrations can cause previously existing, yet unobserved, cracks or other damage to become known. Applus+ can therefore help protect its clients against unwarranted claims for damage existing prior to the construction.

Furthermore, when the permissible vibration limits and actual vibration levels are detailed, productivity can be increased and decreased to match the thresholds revealed in the vibration analysis and surveys within the project's plan.