

# Case Study - Environmental Noise Level Monitoring Property Line

## Project Description: Industrial Plant Relocation (NJAC 7:29)

**Scope of Services:** AET was contracted by an industrial client to respond to an NJ local township request/concern of environmental noise from the planned relocation of its existing industrial facility into a residential area. Noise level monitoring was performed in compliance with NJAC 7:29 which restricts noise from “any industrial, commercial or community service facility when measured at the property line”. NJAC 7:29 limits continuous noise at 65dBA, impulse noise at 80 dBA and continuous noise at various octave bands/frequencies between the hours of 7:00 a.m. and 10:00 p.m. Lower limits are established between the hours of 10:00 p.m. and 7:00 a.m.

### *AET's Investigative Approach/Tools:*

1. **Noise Sources:** Individual noise generating sources in the existing industrial plant were identified and measured using a sound level meter.
2. **Noise Mapping:** Specific noise level were documented at various locations within the interior of the plant and at 50' incremental distances on all 4 sides of the plant extending from the building foundation. The maximum distance evaluated was 200' to correspond with the property line at the new industrial location.
3. **Noise Controls:** An octave band analyzer was used to measure noise frequencies from plant equipment for noise attenuation purposes and required future controls at the new plant facility.

**Conclusion:** Major noise sources were identified. Based on the noise level sat the property line at the existing plant location, noise levels exceeding NJAC 7:29 were anticipated. Noise engineering controls and structural modifications to the new plant facility were included in the plant relocation and design criteria.

When you need professional help or advice, email Alan Sutherland, CIH, CHMM at [a.sutherland@aetinc.biz](mailto:a.sutherland@aetinc.biz) or call 610-891-0114; Be sure to reference AET Project #6287NJ when calling. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services we provide at our website [www.aetinc.biz](http://www.aetinc.biz).

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