



## **FIELD SOUND MEASUREMENTS FROM COOLING TOWERS ABSTRACT**

Kenneth W. Hennon, P.E. and David E. Wheeler, P.E.  
Clean Air Engineering

In recent years, regulation of sound from cooling towers has become increasingly common. Worker exposure to sound is regulated and many municipalities have specific regulations for cooling towers specifying not only the average sound level at a plant boundary but detailed requirements for sound emitted in specified frequency ranges. The increasingly common regulatory requirements and requests for manufacturer's guarantees for cooling tower sound emissions provided an incentive for the revision of the CTI Test Code for Measurement of Sound From Cooling Towers (ATC-128) which was re-issued in July, 2005.

The means for evaluation of a contractual performance guarantee in accordance with ATC-128 can be made via one of the following types of guarantees:

1. Near Field Sound Pressure or Sound Pressure Level on a frequency specific basis of weighted basis
2. Aggregate Sound Power or Sound Power Level

This paper discusses the implementation of this test code with respect to field erected cooling towers and provides an illustrative example of a field data set and sample calculations.