

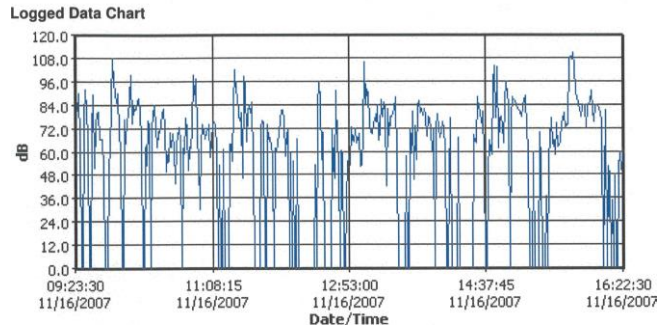
## Project Description

Rogers & Callcott was contracted to conduct personnel dosimeter and sound level readings at various ready-mix plant sites to determine noise exposure levels to employees. Simultaneously, Rogers & Callcott conducted personnel and area sampling to determine airborne concentrations of respirable and total particulates not otherwise regulated.



## Rogers & Callcott Services and Results

**Noise Surveys** – The noise measurements were conducted using the technique prescribed in the Occupational Health and Safety Administration (“OSHA”) technical manual, “Noise Measurement”. The sampling consisted of a Quest Model NP-DLX personal dosimeter being placed on select employees. Employees working in high noise areas were chosen to determine the allowable noise dose over any 8-hour period. Readings were taken in the monitored employee’s hearing zone which is a sphere with a two-foot diameter surrounding the head. According to the manual, hearing protection is recommended for exposure levels greater than 85dBA over an 8-hour period. The results from the outside transfer areas exceeded this level so recommendations were made that hearing protection be required in these areas and a reduction factor should be chosen that will bring noise exposure below the (PEL).



Prior to surveying, specified calibrations were done on all instruments. Sound level meter readings were also taken using a Quest 2700 Sound level meter. Readings were taken in the employee’s hearing zone. Random sites throughout the outside transfer area were chosen relative to worker noise exposure and the sites were marked on drawings.

**Particulate Surveys** – Air sampling was performed following the NIOSH Method 0600 protocol. The sampling assembly is worn by the target personnel, attached such that air enters the cyclone at close proximity to the personnel breathing zone. Air is drawn through the cassette filter holder and cyclone assembly at 1.7 liters-per-minute (L/min.) by a personal sampling pump. The sampling was conducted so that at least one employee and one stationary source were sampled during the 1<sup>st</sup> production shift. Samples were taken along with field blanks and one media blank (for quality assurance).

The same protocol was followed for the “total particulate” sampling. The samples obtained were weighed (detection limit at 0.05 mg) by Analytics Corporation following the protocol for weighing outlined in NIOSH Method 0600. All results were well under the PEL limits for both respirable and total particulate standards.