

## OCCUPATIONAL NOISE EXPOSURE

Damage to hearing is most often a direct result of noise level and duration. The frequency and pitch can also have some effect since high-pitched sounds are generally more damaging than low-pitched sounds. Hearing loss can be temporary or permanent. Recovery from temporary hearing loss requires elimination of exposure for a period of time. Permanent hearing loss is irreversible. Normally workplace noise affects the ability to hear high frequency (high pitched) sounds.

Studies have found noise can contribute to a quickened pulse rate, increased blood pressure and a constriction of the blood vessels. Over a prolonged period of time, this can be an added burden on the heart. In addition, exposure to increased levels of noise has been known to result in abnormal secretion of hormones (thyroid, adrenalin, adrenocorticotrophic) and muscle tensing. Excessive noise can reduce worker performance and contribute to high rates of absenteeism.

### **ANSI/ASSE A10.46-2013: Hearing Loss Prevention for Construction and Demolition Workers**

Hearing protection (HP) is required because the noise levels of many construction operations frequently exceed 90dBA. When employees are subjected to sound levels listed in Table below, feasible administrative or engineering controls must be used. If these controls fail to reduce sound levels to an acceptable range, workers must wear hearing protection and be trained to properly use HP devices.

### **Allowable Exposure Levels to Sound**

<b>Sound Level (dBA)</b>	<b>Time per day (hours)</b>
<b>90</b>	<b>8</b>
<b>95</b>	<b>4</b>
<b>100</b>	<b>2</b>
<b>105</b>	<b>1</b>
<b>110</b>	<b>½</b>

**NOTE:** Use the table above to determine what individuals would have the greatest potential in exceeding the Allowable Exposure Levels of Sound during the performance of work on a daily basis. Employees and Sub-Contractors shall be directed & encouraged to voice any questions or concerns.