**Tips for Hearing Protection in the Oil and Gas Extraction Industry**

Oil and gas exploration and production are some of the world’s most acoustically challenging work environments. Gas compressors, gas turbines, other machinery, drilling, fracking, maintenance work, and construction work on both land and off-shore rigs can create noise at decibel levels high enough to cause hearing loss over time, and more immediately distract workers and disrupt communications. Rigs are work environments of constant, complex movements by employees and equipment 24 hours a day, seven days a week. In addition, employees working 12-hour shifts for seven days on, seven days off – an industry norm – can be exposed to both high-impact (pile driving and underwater explosions) and prolonged noise for longer periods of time than most industrial employees working eight-hour shifts, five days a week.

Noise not only impairs sensibility to hearing, but continuous loud noise such as experienced by rig workers on long shifts, and also workers sleeping on board offshore rigs, can create tiredness, irritation, and reduce cognitive functions affecting judgment and hazard awareness.

Studies by the United Kingdom’s Health and Safety Executive (HSE) of 31 offshore drilling rigs and 71 production platforms found noise levels on drill floors can range from 80 to more than 100 decibels (dBA). Noise in crane cabins can reach levels as high as more than 110 dBA. Construction crews, deck crews, crane operators, cementers, derrickmen, drillers, roughnecks and roustabouts can be exposed to noise levels above 90 dBA. The average noise level of drilling rig installations studied was between 90 to 95 dBA.

Hearing conservation programs are essential at these noise levels. This includes noise measurements, noise- and vibration reducing engineering controls when feasible, ear plugs and ear muffs such as Howard Leight® products when barriers and enclosures are not feasible, fit-testing of hearing protectors, tests for hearing loss, and worker training – an ongoing campaign to build awareness about the risks, dangers and consequences of noise-induced hearing loss (NIHL). Training is critical as the oil and gas boom has produced a rush to hire new employees who may be inexperienced and lack knowledge of the invisible hazards created by loud noise. The industry also has a “macho” image that can cause some workers to feel that personal protective equipment such as hearing protectors is not necessary.