

Professional Qualifications

Jeffrey M. Cerjan



Education:

B.S., Aerospace Engineering
University of Kansas, 1994

Professional Affiliations:

Institute of Noise Control Engineering
Acoustical Society of America

Agency Experience:

Federal Highway Administration
Federal Aviation Administration
Department of Transportation
Colorado Department of Transportation
Utah Department of Transportation
Nebraska Department of Roads

Background:

Mr. Cerjan has been practicing in the field of noise and vibration engineering for the past ten years. He has gained this experience in a number of fields including aircraft, transportation, oil and gas, and architectural. Prior to working for Hankard Environmental, Mr. Cerjan worked for Raytheon Aircraft in design, systems, structural dynamics and acoustics. At Raytheon, he gained extensive experience in aircraft interior noise and vibration measurements, analysis and design as well as take-off noise testing, analysis and certification. Mr. Cerjan then worked for The NORDAM Group where he established an acoustical engineering position for this principle supplier of integrated aircraft interiors. Since arriving at Hankard Environmental, Mr. Cerjan has completed or supported over 60 aircraft, transportation, oil & gas, architectural, and land development projects. He has also supported clients at governmental hearings, conducted audio demonstrations, and has provided expert witness testimony in civil lawsuits.

Experience

Aircraft Noise and Vibration

Includes extensive noise and vibration testing and analysis on a wide range of turbojet, turbofan and piston aircraft, which includes the entire product line of Raytheon Aircraft as well as Bombardier Challenger 604, Gulfstream IV and Cessna Ultra. Conducting such testing required flight test planning and engineering to ensure the analysis would be accurate. Takeoff noise certification testing and/or analysis was conducted on the King Air B200, Joint Primary Aircraft Trainer System (JPATS) and Beechjet. Support was provided to the Premier I in the capacity of ground vibration testing, flight flutter testing and Statistical Energy Analysis. Lead acoustical engineering was provided for the Hawker Horizon business jet which included development of specifications, weight allocations and project management. Significant research has been conducted with respect to soundproofing and composite materials.

Transportation Noise Analysis and Mitigation Design

Includes acoustical analysis using STAMINA and TNM noise modeling software to predict noise levels near highways or roadways, as well as the use of these models to design and predict the impact of any required noise mitigation. This was then followed up with a technical noise report, support in preparing the noise section of the EA or EIS and presentations to engineering personnel and the public. A majority of these projects were for highways and roadways in the state of Colorado, with a few conducted for Utah and Nebraska. Some representative projects include the Interstate 25 EA in Colorado Springs, U.S. 287 in Fort Collins and the Interstate 25-State Highway 58 Interchange in Denver. Other studies have been completed following the U.S. Department of Housing and Urban Development Noise Policy, ISO Standards and ANSI Standards. In addition, analysis of the various types of pavement and pavement texturing as it applies to noise has been completed.

Other Noise and Vibration Projects

Includes various projects from visual simulations of recommended noise barriers for development companies to sound transmission loss testing of materials using our in-house facilities. Some of these projects include measurements and demonstrations for the City Lights Pavilion (outdoor amphitheater), measurements and analysis for the communities in and around mining operations, and measurements, analysis and mitigation design for natural gas compressor stations. Additionally, interior noise and vibration services have been provided to homeowners with various noise and vibration issues from a loud neighbor to reducing traffic noise from a nearby roadway. Some projects require compliance with a local or state noise code, while others are looking for a more quiet and comfortable living space.

Expert Witness Testimony

Testimony on acoustics with regard to sound propagation, mitigation, measurements, and data interpretation has been provided for civil lawsuits. Preparation for these cases included conducting measurements and analysis for our clients. The results of these findings were used as evidence in their cases. Both depositions and in court testimony have been provided.