



Jacob Poling INCE Board Certified

Senior Acoustician

15 years of experience

Jacob Poling is a Senior Acoustician specializing in acoustics and noise control and leads Stantec's U.S. Environmental Acoustics and Noise practice. Jacob is Board Certified by the Institute of Noise Control Engineering (INCE) and has 15 years of professional experience in noise assessments for renewable energy, power generation, industrial, transportation, construction, and buildings projects. Jacob also has experience with vibration analysis for construction and rail projects, soundscape studies in national parks, and underwater acoustic measurement and modeling.

Jacob's experience spans the full project lifecycle from preliminary engineering and planning to final design and construction. He has testified in support of project permit applications at zoning and planning board hearings and supported clients in the legal process with expert review and depositions. Jacob's technical capabilities include noise and vibration measurements and monitoring, analysis and post-processing of measurement data, detailed acoustical modeling, design and analysis of noise mitigation measures, and preparation of technical reports.

EDUCATION

Bachelor of Arts, Acoustics, Columbia College Chicago, Chicago, IL

REGISTRATIONS

Board Certified Noise Control Engineer, Institute of Noise Control Engineering of the USA

PROJECT EXPERIENCE

ENVIRONMENTAL NOISE ASSESSMENT - INDUSTRIAL FACILITIES

Garrison Energy Center | Calpine | Dover, Delaware | 2015 | Acoustical Engineer

Noise analyst that assisted with plant noise compliance measurements for the Garrison Energy Center, which is a 250 MW dual-cycle natural gas fired power plant. Far field measurements were completed at six locations surrounding the plant to evaluate whether the plant operating at full load complied with property line noise limits. Near field noise measurements were also made for a variety of equipment to determine whether equipment noise levels met manufacturer specifications and where plant workers would be required to wear hearing protection per OSHA regulations.

Spartan Power Plant | Gilmerton Energy Center LLC | Chesapeake, Virginia | 2016 | Acoustical Engineer

Acoustical engineer for a community noise assessment for a 1,400 MW combined cycle natural gas-fired power plant. Role involved acoustical modeling of future power plant noise levels to evaluate compliance with the City of Chesapeake noise ordinance limits at the nearest residential properties.

Hess Newark Energy Center | Hess Corporation | Newark, New Jersey | 2012 | Acoustical Engineer

Assistant acoustical engineer for noise assessment of a proposed 640 MW combined cycle natural gas power plant. Ambient noise levels were measured at the site and the nearest community receptor locations. Future noise levels were then predicted and results were evaluated against state noise criteria limits. Testified before the City of Newark

Environmental Commission on the results of the study and participated in a public open house for the project.

Power Plant Noise Compliance Testing | Kleen Energy Systems | Middletown, CT, USA | 2012 | Acoustical Engineer

Assistant acoustical engineer that performed a comprehensive plant operational noise test to confirm compliance with state noise regulations. Noise levels were measured during various plant operational phases at six community receptor sites throughout a night of testing. Results demonstrated that the 620 MW combined cycle plant was in compliance at all sites. Audio files recorded during the testing identified the hogger vent as being particularly loud at one community receptor site. Additional work involved performing near-field equipment noise measurements and providing guidance for mitigating noise from the plant's hogger vent.

BKV P&G4 Compressor Station | BKV Operating | Washington Township, Pennsylvania | 2022 | Acoustical Engineer

Acoustical engineer for preconstruction acoustical study to support permitting of a new temporary natural gas compressor. Role involved measurement of baseline ambient noise levels, modeling of compressor noise sources, design of a noise barrier to comply with noise limits, and technical reporting. Attended zoning and planning board hearings to support permit application.

BKV P&G2 Compressor Station | BKV Operating | Washington Township, Pennsylvania | Acoustical Engineer

Acoustical engineer for preconstruction acoustical study to support permitting of a new natural gas compressor station. Role involved measurement of baseline ambient noise levels, modeling of interior and exterior compressor station noise sources, selection of noise mitigation measures and equipment to comply with noise limits, and technical reporting. Attended zoning and planning board hearings to support permit application.

Wisconsin Battery Energy Storage Facility | Confidential | Wisconsin, USA | 2023 | Acoustical Engineer

Project manager and acoustical engineer for noise assessment of a 300 MW battery energy storage system

(BESS) facility in Wisconsin. Project operational compliance with local noise regulations was evaluated. The noise study included ambient noise monitoring to establish existing nighttime ambient noise levels at residences near the facility, establishment of a facility noise design goal, operational noise modeling to estimate noise levels generated by the facility equipment, and evaluation of potential noise mitigation measures. Stantec also coordinated with the client and third-party vendors to identify the potential cost of noise mitigation measures.

Twin Metals Underground Mine | Twin Metals Minnesota | Ely, Minnesota | 2020-2021 | Acoustical Engineer

Acoustical engineer for noise and vibration study to support permitting of a new underground copper, nickel, and cobalt mine in northeastern Minnesota. Responsibility included measurement of existing noise and vibration levels, modeling of future noise levels from the proposed mine operational and construction phases, and preparation of the noise and vibration section for the project's EIS.

Vista Sands Solar | Doral Renewables | Portage County, WI, USA | 2023-2024 | Acoustical Engineer

Task lead for pre-construction noise study for 1,182 MW solar energy facility with a 300 MW battery energy storage system. Task included ambient sound measurements, acoustical modeling, compliance assessment, and noise mitigation design. The noise study was prepared to meet requirements of the Public Service Commission of Wisconsin (PSCW).

Scioto Ridge Solar | RWE Clean Energy | Hardin County, Ohio, OH, USA | 2023-2024 | Acoustical Engineer

Task lead for pre-construction noise study for 110 MW solar energy facility with a 20 MW battery energy storage system. Task included ambient sound measurements, acoustical modeling, compliance assessment, and noise mitigation design. The noise study was prepared to meet requirements of the Ohio Power Siting Board (OPSB).

Virden Wind | UKA North America | Montgomery County, IL, USA | 2023-2024 | Acoustical Engineer

Task lead for pre-construction sound study for a 122 MW wind energy facility. Task included acoustical modeling, compliance assessment, determination of required noise reduced operating modes for turbines, and testimony at the public hearing. The sound study was prepared to meet the requirements of the Illinois Pollution Control Board (IPCB).

Onion River Solar | D.E. Shaw Renewable Investments | Sheboygan County, WI, USA | 2023-2024 | Acoustical Engineer

Task lead for post-construction noise study for 150 MW solar energy facility. Task included completing a sound measurement survey with and without the solar facility equipment operating and a noise compliance assessment. The noise study was prepared to meet requirements of the Public Service Commission of Wisconsin (PSCW). A separate study was also completed to assess noise compliance at a specific residence and to design a noise barrier for the inverter adjacent to the residence.

Crawfish River Solar | D.E. Shaw Renewable Investments | Jefferson County, WI, USA | 2024 | Acoustical Engineer

Task lead for post-construction noise study for 75 MW solar energy facility. Task included completing a sound measurement survey with and without the solar facility equipment operating and a noise compliance assessment. The noise study was prepared to meet requirements of the Public Service Commission of Wisconsin (PSCW).