

Big Sky Acoustics, LLC

PROJECT PROFILE: POWER PLANT



PROJECT: LELAND OLDS STATION
Stanton, North Dakota

CLIENT: Basin Electric Power Cooperative

The Leland Olds Station decided to remodel the Control Room of the power plant in conjunction with the replacement of the control system. Big Sky Acoustics was hired to complete an acoustical analysis of the Control Room and provide engineering solutions to reduce overall noise levels and floor vibrations.

BSA's SERVICES and SOLUTIONS:

- Noise and vibration sources include pulverizers, high pressure service water pumps, fans, turbines, generators, and other power plant equipment, located adjacent to and below the Control Room.
- BSA worked closely with the power plant operator and the architect throughout the Project. BSA visited the site, met with the project team, **measured the overall noise and floor vibration levels** in the Control Room, and observed the existing plant conditions.
- Determined the most effective methods to **reduce sound transmission** from the plant into the Control Room and to **reduce building vibrations**.
- To **isolate the Control Room** from the power plant noise and equipment vibrations, **BSA analyzed:**
 - Wall constructions,
 - Window and door configurations,
 - Ceiling materials, and
 - Vibration isolators.
- Summarized the acoustic analysis in a clear and concise report, so Basin Electric understood what results to expect when the plant is brought back on-line after the remodel is complete.

