> CASESTUDY

OIL & GAS

ONLINE SCREENING NIA TOOL

COMPANY
All Oil & Gas Companies

SECTOR
Oil and Gas

SERVICE
Noise Impact Assessment

CHALLENGE

The Alberta Energy Regulator (AER) Directive 038: Noise Control, requires a Noise Impact Assessment (NIA) before submitting an application for a new facility or modification to an existing facility. This applies in situations where there is a reasonable expectation of a continuous noise source (for new facilities) or a change in the characterization of noise (for existing facilities). Directive 038 outlines procedures for completing full-detail NIAs for complex facilities and also methods to conduct simplified calculations for smaller facilities or remote areas. Examples of such simple facilities include:

- Well sites with pump jacks or small engine-driven hydraulic top drives.
- Single-source facilities, such as single-compressor facilities.
- Multiple-source facilities where the sources are not significant and there are no residences nearby.

For these type of simple facilities, many applicants have developed in-house, low-detail NIA's. These in-house NIA's can often be challenged by the regulator because of difficulties in obtaining credible and relevant sound source emission data, and applying acoustical theory. These challenges can result in application delays, regulatory enforcement, and loss of reputation for the facility owner.

The Screening NIA tool provides a low-cost NIA option for situations that do not carry significant compliance risk but still require regulatory approval

Solution

Patching Associates has developed an online tool that produces a lower-detail NIA for simple facilities. This Screening NIA tool helps to quickly assemble necessary facility information in order to identify credible sound source emission values within Patching's archives of resources, which include:

- Manufacturer's data, either in Sound Power Level or Sound Pressure Level, at a specific distance.
- Patching's extensive database accumulated over thousands of field studies.
- Decades of expertise in applying acoustical theory.

This tool calculates the resulting noise levels and then produces a NIA report that satisfies the format suggested by AER for these situations. If the results show a high margin of compliance, then the NIA is adequate. If the results indicate only marginal compliance or non-compliance, then Patching's team of experts will offer further guidance for the most cost-effective means for achieving compliance and ensure a technically complete NIA.

Patching's engineers ensure the analysis is completed using credible and relevant source data, valid assumptions, and correct acoustical theory. Patching's stamped Screening NIA reports provide the necessary credibility for approval by the regulators.

Result

The Screening NIA tool provides a low-cost NIA option for situations that do not carry significant compliance risk but still require regulatory approval. The lower-detail NIA report is adequate for facilities with a high margin of compliance. If it reveals insufficient margin of compliance, it still provides relevant information for use by Patching's experts to guide you to cost-effective compliance.

For complex facilities, noise mitigation costs are critical to the project, and detailed analysis is necessary to lower project risks. Patching Associates excels at full-detail NIA's, and this Screening NIA Online Tool allows facility applicants to tailor the level of detail to their project in order to optimize noise management costs.

Benefits

- Low cost: only as much detail and analysis as necessary for compliance.
- Credible results and engineer-stamped report.
- Online tool for anytime access and next business day report delivery.
- The experience of Patching's engineers to guide you through a path to compliance while prudently managing your costs.

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Go to the Screening NIA Online Tool