



WHY A STEP-WISE APPROACH TO REGULATORY COMPLIANCE MINIMIZES RISKS

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Ensuring that existing operations comply with new environmental requirements can be an arduous process. In addition to the potential cost of complying with new regulations, operational impacts can be equally as challenging and more costly if operations are limited. Fortunately, getting your operations into compliance does not have to be so difficult. By taking a step-wise approach to determining compliance, companies can minimize risks and understand both capital costs and potential impacts to operations.

This approach requires a comprehensive understanding of both the new regulation and the subject operations. This knowledge is essential to determining potential impacts and could include such activities as stack testing. This comprehensive knowledge then allows for a thorough understanding of potential impacts of compliance to operations as well as how those impacts could be mitigated.

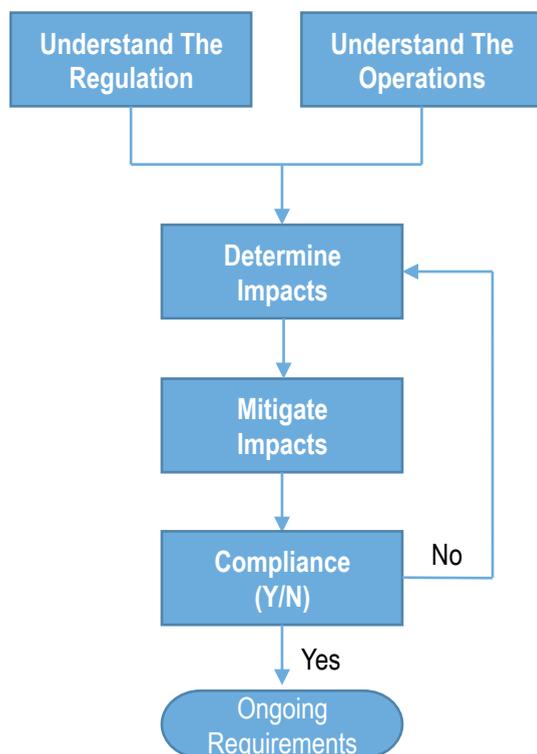


Figure 1: Step-Wise Compliance Approach

Supporting NYC Transit

A good example of this approach was Dewberry's project with New York City Transit (NYCT) to support compliance of Compressed Natural Gas (CNG) compressor engines used to fuel CNG buses with the federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). As part of the first task, we developed a comprehensive database of engine specifications and operating procedures to assess compliance with the provisions of these regulations. A summary of the requirements was developed in a tabular format on a per engine basis to allow NYCT to understand compliance needs on a per engine basis.

Once the applicability analysis was completed, preliminary emissions testing in compliance with ASTM standards was performed to determine individual engine emissions profiles. A detailed protocol for each test was established to verify the accuracy of test results as well as for comparison with later performance testing. We used emission testing with handheld equipment per these ASTM standards to save the client in excess of \$50,000 in additional costs associated with other approved stack testing methods. Stringent procedures were developed in conjunction with equipment vendors as well as field oversight by Dewberry personnel to verify the accuracy of results. Because of the nature of operations, we coordinated carefully with facility management to schedule bus fueling to facilitate requisite testing runs.

For equipment not meeting specific emission limitations, a control technology analysis was performed to evaluate the feasibility, budget, and schedule for installation of necessary pollution controls. The results of the emissions testing provided invaluable information for vendors when designing the controls. In addition, the logistical planning required to perform the tests also prompted design changes to make performance testing easier and have less of an impact on bus fueling.

Minimizing Impacts

After funding was approved and permits were secured from the New York State Department of Environmental Conservation, the equipment was installed and performance testing completed with minimal impact to operations. The data gained from the performance testing helped make this project a success, allowing NYCT to comply with the regulations with minimal impact on their operations. By taking a step-wise logical approach, the comprehensive knowledge gained allowed NYCT to minimize impacts to operations.

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