



a clear direction for the future



case study

## National Railway Equipment Company Chicago, IL

### Overview

National Railway Equipment Company (NREC) is the world's largest independent locomotive manufacturer. The company produces new locomotives, along with services that add seven to 20 years of life to used locomotives. NREC has also led the way in designing enhanced environmentally friendly equipment for the railroad industry. With stringent self-imposed regulations, NREC created an innovative "green" locomotive, constructed with more efficient components—including engines—to meet even the strictest sound requirements. The last step of the project was to phase out the majority of their older locomotives to Union Pacific and BNSF.



### Challenge

GT Exhaust met the sound requirements on locomotives head on. With NREC's unique layout that requires a large amount of custom engineering, locomotives can prove challenging. The body of a locomotive has very little room for any extra equipment. Minimal free space exists due to the large number of components that go into a train. According to the project's challenge, each locomotive has three generator sets, each requiring a sound attenuation solution.



### Solution

Because this is an ongoing partner project, GT has installed silencers on NREC's high-efficiency engines to further reduce sound levels. In order to meet specific sound requirements, custom Silencers have been placed toward the rear of the engine. Further, flexes, ring caps and thermal wrap from GT Exhaust are used in order to complete the exhaust system. Customization is required throughout this process, and what makes the project unique is that considerable customization is taking place on a very large scale. In fact, GT and NREC are on the verge of completing the 200th locomotive. Working with Mike DeMauro of Power Source Midwest, GT's local channel partner, has helped GT manage the details of this very large project.

NREC has been very satisfied with the results of the project, and is expanding its relationship with GT Exhaust to also produce emissions solutions for its locomotives.

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