

Keeping noise management on track in a heavy engineering workshop

Peter Reidy, KiwiRail



Engineering a noise solution

An organisation's most valuable asset is its people and no more so than when you are running a 24-hour, 7 day a week operation. At KiwiRail, we have been working with unions and our staff to develop a "High Performance – High Engagement" (HPHE) culture which gives staff genuine input into meeting some of the challenges we face. It's no surprise that the best ideas often come from staff with the greatest understanding of how their part of the business works.

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A recent and very successful example of using HPHE to solve an issue is the noise management work that has been undertaken at our Hutt heavy engineering workshop.

Leaders from KiwiRail's business unit and the Rail Maritime Transport Union have been working alongside our Hutt-based teams in their workplace where they maintain and refurbish locomotives and other rolling stock. The size of the site-based machinery, metal-on-metal and other engineering noise is hugely amplified. We wanted to move away from the reliance on lower order controls such as the PPE option of high-spec hearing protectors to more effective, engineering-based solutions. Our teams and management, including from Zero Harm, engaged in sourcing and testing solutions with noise-control experts, and they found the best option was to create noise isolation spaces. The noise couldn't be eliminated, but we could significantly reduce exposure through isolation.



Buffing booth: this isolation area addresses both noise and dust.



Test Bay: Traction motors are now run in this booth after being overhauled.

Fortunately we had the benefit of space: the solutions that were chosen are acoustic enclosures – a series of sound-proofed rooms that isolate excessive noise. Engineers take the equipment they're working on into a sound-proofed enclosure (up to 8.6 x 5.7 metres) where the sound does not impact the broader workforce. Rolling stock maintenance activities generates a wide variance of high-pitched and acute noise, including sandblasting, welding and test bays where traction motors are run.

Validating the solution with the teams and developing a new working environment has been critical for the wellbeing of our Hutt team. Additionally the team feels engaged and part of the solution. There is no doubt that the solution is much better as a result.



Katie McMahon

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