

◀ Crossrail – A Case Study in Implementation of NRMM Emissions Control

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Crossrail Route



Crossrail's Position



- ▶ NRMM over 37kW or above to be Stage 3B or equivalent (3A plus retrofit)

Performance in 2012



Emissions Standard	March 2012	
	Number	%
Stage II	16	12%
Stage IIIA (Retrofit)	82 (18)	60% (8%)
Stage IIIB	39	28%
Total *	137	

- ▶ Guidance on Diesel Engine Emissions from NRMM and Retrofitting with Diesel Particulate Filters
- ▶ NRMM Diesel Engine Emissions – Field Guide to Identification of Diesel Engine Emission Compliance
- ▶ NRMM Dispensation Proforma Guidance



Performance Standard



NRMM with type approval engines Euro II or III(A) combined with after treatment devices listed under or with certification from:

- ▶ The Energy Savings Trust Energy Savings Trust Non-Road Mobile Machinery Register; or
- ▶ The Swiss Federal Ordinance on Air Pollution Control (OAPC) FOEN Particulate Filter List; or
- ▶ Californian ARB Verification Classifications for Diesel Emission Control Strategies, Retrofit Device Verification Database Level 3; or
- ▶ Technology approved through the Transport for London (TfL) Low Emissions certification (LEC) process, Emission Stage Phase 4 achieving PM emissions limits Standard C, provided there is a proven record of off-road capabilities.
- ▶ An equivalent certification scheme provided that prior acceptance has been received from the Project Manager.

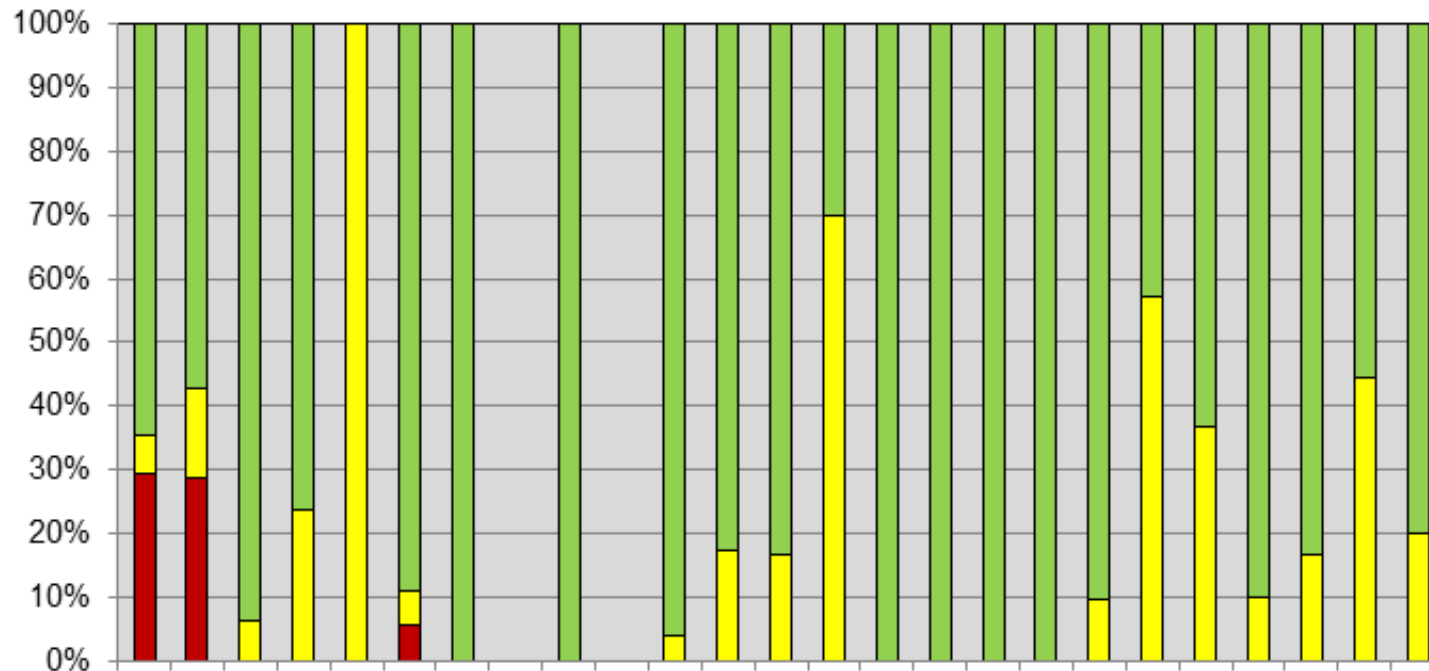


Reporting and Enforcement



Emissions Control

↔ 98%

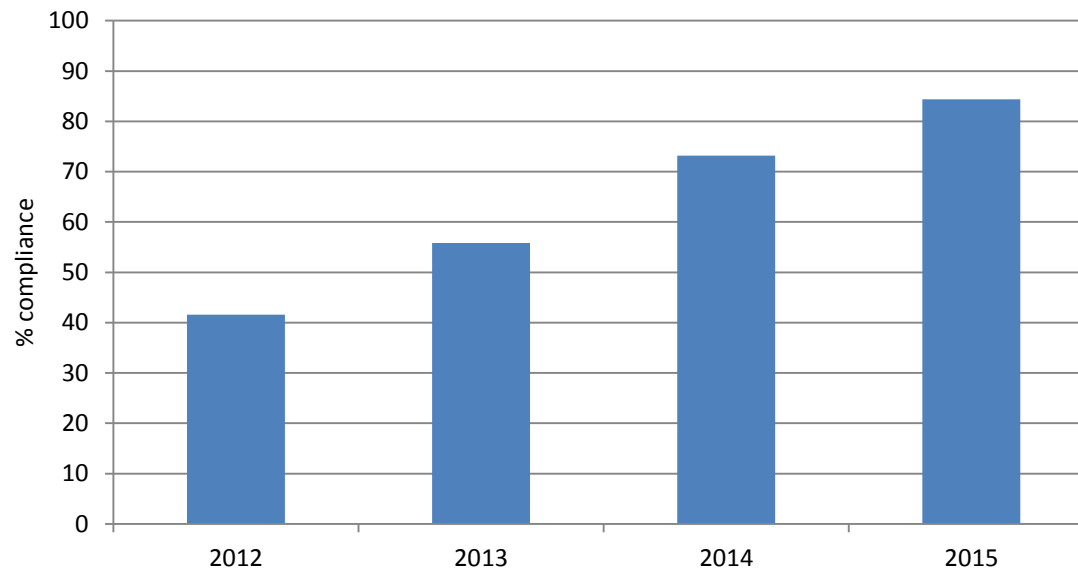


■ Not compliant ■ Dispensation outstanding ■ Dispensation approved
■ Compliant ■ Not reporting/contract closed

Performance Improvement



Construction Machinery Emissions Control Performance



NRMM Data - 2015



2014-15 Q3 NRMM Data



- Compliant
- Dispensed
- Non-compliant

189

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