




# NON-ROAD MOBILE MACHINERY REGISTRATION PROCESS

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## TIDEWAY

## Non-Road Mobile Machinery Registration Process

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Checked by	M Gardiner	Graduate Environmental Advisor		27/06/16
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# TIDEWAY

## Non-Road Mobile Machinery Registration Process

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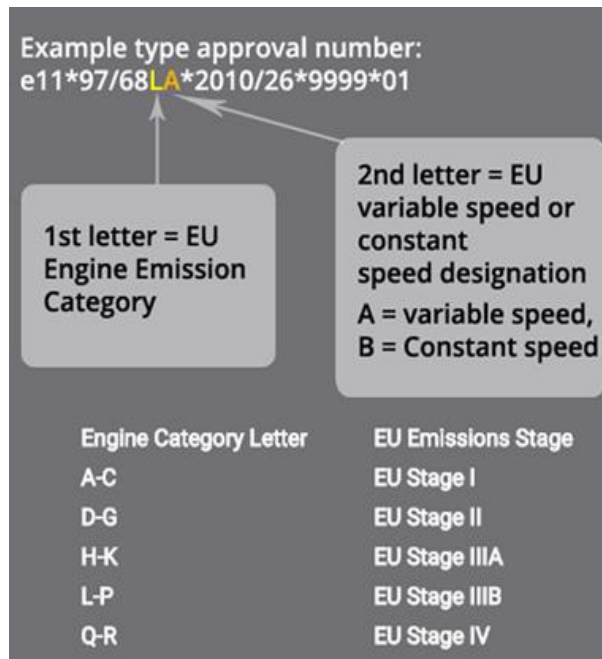
## 1 Introduction

- 1.1.1 As of 1st September 2015 projects within the Greater London Area are required to comply with the London Low Emission Zone Non-Road Mobile Machinery (NRMM) requirements. This means all NRMM with an engine net power between 37kW and 560kW must meet minimum standards in terms of exhaust emissions of Nitrogen Oxides (NOx) and Particulate Matter (PM).
- 1.1.2 The location of all CVB sites requires that all NRMM within these parameters have to meet an emission standard of Euro Stage IIIA. The stage above is Euro Stage IIIB. CVB are required to demonstrate compliance with this law by registering all relevant plant on the Greater London Authorities (GLA.s) NRMM website.

## 2 Requirements

- 2.1.1 **All NRMM plant shall be required to be registered before coming to site through the following process:**
- i. All CVB Plant and subcontractors attending site who intend to use plant shall be provided with the CVB NRMM Register, doc ref. 5100-CVBJV-TTEAS-160-NZ-OL-000361.
  - ii. Guidance on the data requirements can be found within the register.
  - iii. If the plant does not meet the correct power requirements for registration, these should still be listed to demonstrate that it can be omitted from registration.
  - iv. All the relevant information should be obtained from the plant supplier prior to arrival on site. This information can also be located on all plant engine plates. For more information on how to read engine plates additional guidance can be found in Appendix B.
  - v. The emission stage of the plant should be checked to ensure compliance with Euro Stage IIIA or higher, as in Figure 1.
  - vi. If plant is within the correct power requirements and is below the required Emissions Standard an alternative must be found.
  - vii. Where road going plant has a secondary engine to undertake work on site, the NRMM information shall be required for this secondary engine, as all road going vehicles are exempt.
  - viii. The above procedure includes all plant that is sited on barges or within the marine environment, while excluding barges themselves.

**Figure 1: Determining Emission Stage from Engine EU Type Approval Number**



### 3 Retrofitted Plant

- 3.1.1 Plant that is not compliant can be retrofitted with after treatment devices, like diesel particulate filters (DPFs) to bring them up to the required standard. Specification sheets should be provided to demonstrate compliance. If plant is retrofitted with an after treatment system, please provide the associated certificate by an approved Energy Saving Trust fitter.
- 3.1.2 The minimum information required will include:
- i. Retrofit Type
  - ii. Retrofit company
  - iii. Retrofit Date
  - iv. Retrofit Details
  - v. Retrofit Approver

### 4 Exemptions

- 4.1.1 If a specific item/class of plant is required that does not meet the NRMM requirements due to it not being available at Euro Stage IIIA and cannot be retrofitted, or if there is numbers insufficient to meet demand in London an exemption can be applied for.
- 4.1.2 Road going plant, like delivery wagons etc, as well as barges are exempt from the legislation and do not require registration.

4.1.3 To determine whether the plant is eligible, and to get a decision made on the exemption, the Environment Team will require the plant information a minimum of 4 weeks before the plant comes to site.

### Viability Exemptions

4.1.4 A viability exemption shall be considered in those instances where retrofit is demonstrated to be unviable. If EU Stage IIIA standards cannot be met, CVB must demonstrate consideration for available retrofit options.

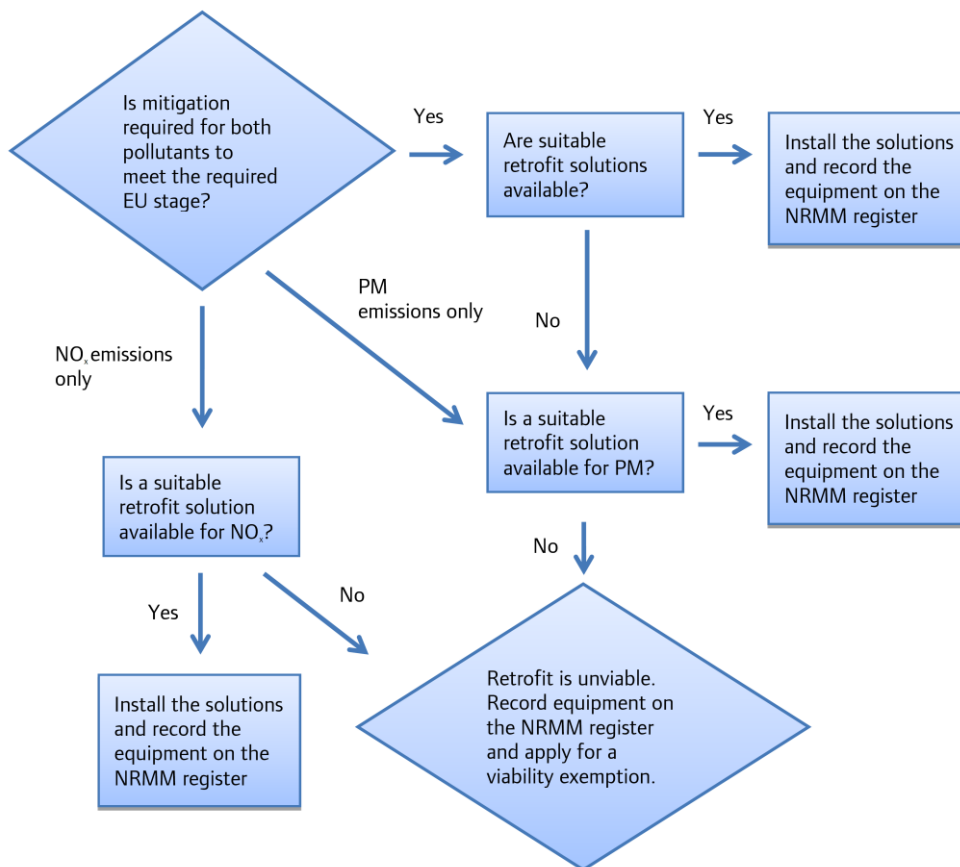
4.1.5 This assessment should consider whether after treatment systems can be installed safely, meeting appropriate equipment regulations (ie Provision and Use of Work Equipment Regulations) and that it will be effective at reducing emissions to ensure it meets the relevant EU stage in so far as is practicable. This is with the objective of mitigating both PM and NOx emissions.

4.1.6 If a NOx retrofit is unviable, then a PM retrofit device shall still be considered. This is in recognition that PM abatement technology (eg DPFs) is widely available and shown to be effective.

4.1.7 If it can be demonstrated that there are no retrofit options for the plant, an exemption can be applied for.

4.1.8 This process is summarised in Figure 2.

**Figure 2: Process chart for consideration of retrofit solutions for viability exemption**



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## 5 Reporting

- 5.1.1 Please ensure all the required information is supplied to the Environment Team within the specified timescales.
- 5.1.2 All data should be submitted on the CVB NRMM Register, as seen in Appendix A.
- 5.1.3 **NRMM Contact Details:**
- i. Matthew Gardiner [Matthew.gardiner@tideway-east.london](mailto:Matthew.gardiner@tideway-east.london)
  - ii. George Vernon-Hunt [George.vernon-hunt@tideway-east.london](mailto:George.vernon-hunt@tideway-east.london)

## Appendix A CVB Non-Road Mobile Machinery Register

Chambers Wharf Non-Road Mobile Machinery Register														 	
Plant No.	Contractor	Supplier	Model	Deployment Date	Deployment Duration	Machinery Type	Machinery Manufacturer	Engine Manufacture Year	Engine Identifier	Engine EU Type Approval Number	Engine Power	Retrofit Type	EU Engine Emmision Stage	Entry Status	



## Appendix B How to Read Engine Plates\*

### B.1.1 What is an engine plate?

All engines manufactured in compliance with the EU engine emissions Directive 97/68/EC must be marked with certain information. These markings are commonly located on a so-called ~ emissions label™ or ~ emissions plate™, similar to the one in the picture above. They may be marked by any durable method such as printed, stamped, engraved, etc, and should include the name of the engine manufacturer and type approval number.

### B.1.2 Why would you read engine plates?

The engine plate is marked with a code detailing the EU Engine Emission Stage, which tells us how much pollution an engine generates. The NRMM LEZ sets the minimum stage allowable, and should be recorded as part of an entry to the NRMM LEZ register.

### B.1.3 Why would you not read engine plates?

Engine plates can be difficult to locate. The reader should take care NOT to put any part of the body in a dangerous situation whilst seeking the necessary information. Please take extra care to turn-off and isolate equipment, and to ensure that it has properly cooled. Any parking brake or safety interlocks should be applied and operating keys removed. You may want to consult health and safety advice.

### B.1.4 How do you find an engine plate?

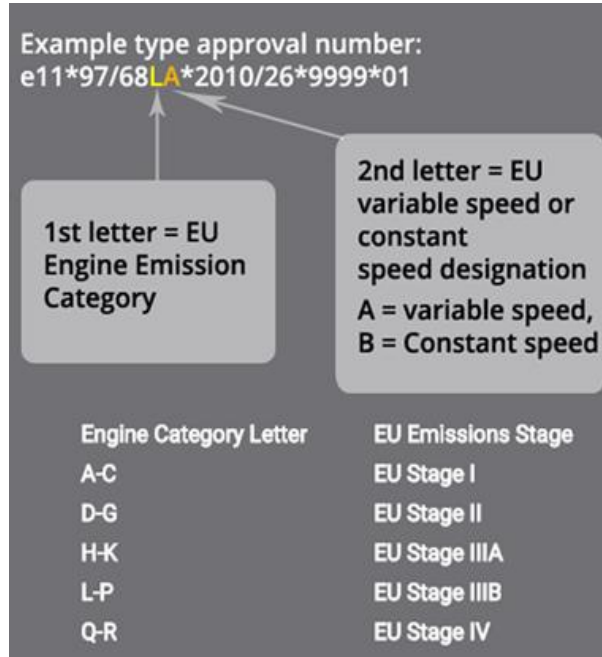
The markings should be locatable with the engine installed in the machine with any necessary access covers to the engine bay open. Where the engine plate is not visible on the engine there should be a duplicate plate in an alternative visible location, such as in the drivers cab, or inside the engine hood, so it may be helpful to check here first

### B.1.5 How do you read an engine plate?

There is one key digit in the type approval number that provides explicit evidence of the emission level to which the engine was manufactured. This is the method by which surveillance authorities check the engine. There is a second digit that can be used as an indication as to whether the engine is typed approved for variable speed or constant speed operation. This second digit is of importance because constant speed engine regulation in the EU is currently limited to stage IIIA (stage IIIB and IV constant speed engines do not exist).

Note also that stage IV does not exist for any NRMM engines < 56 kW. In this case emission regulation in the EU is limited to stage IIIB.

In this example the letters LA mean it is a variable speed stage IIIB 130 560 kW engine. This complies with 01 Sept 2015 GLA NRMM requirements for all zones, and complies with 01 Sept 2020 GLA NRMM requirement for all zones EXCEPT Central Activity Zone and Canary Wharf.



B.1.6 You can then use the first letter to find the EU Emissions Stage of the engine as follows:

Engine Category Letter	EU Emissions Stage
A-C	EU Stage I
D-G	EU Stage II
H-K	EU Stage IIIA
L-P	EU Stage IIIB
Q-R	EU Stage IV

\*Extract from the NRMM Website: <https://nrmm.london/nrmm/how-use/how-read-engine-plates>