



NRMM

non-road mobile machinery



2017 Update

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South London Project



Audit Procedure

The process can be divided into the following stages:

- Request for details of Major planning applications from Planning Team. (A Major development site is defined as a residential development of 10 dwellings or more or where the number is not given, 0.5 ha or more; or for all other uses, a floor space 1000 square feet or a site area 1 ha or more.)
Note: Within the Central Activity Zone and Canary Wharf *all* development sites must be listed for NRMM.
- Comparison of details received from Planning and those drawn from the listings on the NRMM website (nrmm.london) and Excel spread sheet drawn up to reflect all known sites.
- Contact made with site managers/sustainability manager, etc. to request audit and to explain rationale behind this.
- Site visit undertaken and audit carried out.
- Follow up correspondence detailing any issues raised during visit sent to site contact, correspondence maintained and second visit undertaken if necessary until compliance is achieved.

Straightforward but.....

- ▶ If an officer cannot see a type approval plate on an engine during the site audit:
- ▶ If there is no manufacturer's paperwork with the plant detailing the EU standard, written evidence of the standard must be requested from either the supplier or the manufacturer and this is to be forwarded to the LA within a reasonable period of time (Good luck with this!)
- ▶ It is possible that a plate may have been affixed to the engine at the point of production in a location that is now not accessible.
- ▶ It is permissible to have secondary plate affixed to the engine.

Planning requirements to enable realistic auditing

- ▶ *If a construction project (major development) in London commenced prior to 1st September 2015 would that project have to comply with NRMM?*
- ▶ A site will only need to comply if the requirement is imposed either by a planning condition or a s106 agreement. The exception to this is where boroughs use the Code of Construction Practice approach. Essentially if the planning condition requires compliance with a published code of practice and the COP has been updated to include the requirements then they will apply whenever the permission was granted.

Merton CoP NRMM Requirements

- ▶ **15. Requirements**
- ▶ **15.1** NRMM used on major construction sites within Greater London are required to meet at least Stage IIIA of EU Directive 97/68/EC and NRMM on all sites within either the Central Activity Zone or Canary Wharf (CAZ/CW) are required to meet Stage IIIB.
- ▶ **15.2** All major development sites in Greater London and all sites within either the Central Activity Zone or Canary Wharf (CAZ/CW) must keep an inventory on site of all NRMM between 37kW and 560kW in use on site.
- ▶ **15.3** Further information on how to comply with these standards is available at <http://nrmm.london/>

Assessment tool purpose

- ▶ We will be using this tool to:
- ▶ Gather actual emissions data (now)
- ▶ Compare the emissions in a compliant London with emissions in a non-compliant London
- ▶ Predict emissions for a compliant London after September 2020

Assessment tool summary

Copy of NRMM Table - Final - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View Add-Ins

Clipboard Font Alignment Number Styles Cells Editing

E6

4 This tool is used to outline emissions associated with NRMM use in London

5 It provides a compliance verification to ascertain if the machine meets NRMM legislation

6

7

8 **Instructions:**

9 **Fill in the questionnaire on the right**

10 **Fill in all the light blue shaded cells in the main form**

11 **All other cells in the main form fill in automatically**

12

13

14 Number of NRMM on site 0

15 Total CO emissions associated with NRMM on site (g) 0

16 Total NOx emissions associated with NRMM on site (g) 0

17 Total PM emissions associated with NRMM on site (g) 0

18 Total NOx + HC emissions associated with NRMM on site (g) 0

19 Total HC emissions associated with NRMM on site (g) 0

20 Number of compliant NRMM on site (Central London/Canary Wharf) 0

21 Number of compliant NRMM on site (Greater London) 0

22

23 Emissions Savings*:

24 CO (g) 0

25 NOx (g) 0

26 PM (g) 0

27 HC (g) 0

28

Questionnaire (Answer all questions):

Questionnaire (Answer all questions):	Answer	Response
Have all the NRMM on site been registered on the NRMM register?	<input type="text"/>	Input Answer
Are any NRMM exempt from NRMM legislation?	<input type="text"/>	Input Answer
Do any NRMM have retrofit technology applied?	<input type="text"/>	Input Answer

Limitations

Tool should be reviewed every 2 years
 Tool is designed to be used in London
 The emissions data uses the current NRMM legislation standards
 Total emissions calculations are based on accurate usage times, power output, and emissions standards
 The emissions savings outlined assume a comparison of the equipment used with the 1997 base standard
 Assumes that legislation is the main driver of reduction in emissions
 If retrofit technology used, enter type approval number of the retrofit technology used

* Total emissions savings/increase according to current standards in comparison to 1997 standards
 This assumes that NRMM would be operating at the base emission standards in 1997 and is compared to the current
 Note: Positive numbers denote emissions saved, negative numbers denote emissions increased since base legislati

Summary Main Form

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Assessment tool main form

This screenshot shows a Microsoft Excel spreadsheet titled "Copy of NRMM Table - Final". The spreadsheet contains a table with the following columns: Date, Arrived Time, Planned, Actual, Location Category, Operator, Plant ID, Type Approval Number, Machinery Details, Nature of Job, Manufacture, Machine Type, Power Output (kW), NRMM Usage Details, and Total Energy. The NRMM Usage Details sub-section includes Duration (hrs) and Space. The table is currently empty of data.

Date	Arrived Time	Planned	Actual	Location Category	Operator	Plant ID	Type Approval Number	Machinery Details	Nature of Job	Manufacture	Machine Type	Power Output (kW)	NRMM Usage Details	Total Energy	
													Duration (hrs)	Space	Total Energy

This screenshot shows a Microsoft Excel spreadsheet titled "Copy of NRMM Table - Final". The spreadsheet contains a table with the following columns: EU Engine Emission, CO (g/kWh), NOx (g/kWh), HC (g/kWh), NOx + HC, PM (g/kWh), CO (g), Total Emissions associated with usage, NOx (g), HC (g), NOx + HC (g), PM (g), Compliance, Central/Cannock, Greater London, CO (g), NOx (g), HC (g), Emissions Limit from 1997, NOx + HC (g), and PM (g). The table is currently empty of data.

EU Engine Emission	CO (g/kWh)	NOx (g/kWh)	HC (g/kWh)	NOx + HC	PM (g/kWh)	CO (g)	Total Emissions associated with usage	NOx (g)	HC (g)	NOx + HC (g)	PM (g)	Compliance	Central/Cannock	Greater London	CO (g)	NOx (g)	HC (g)	Emissions Limit from 1997	NOx + HC (g)	PM (g)
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Actions required by partners

- ▶ Ensure Planning Officers are au fait with all aspects of NRMM policy and procedures
- ▶ Badger Planners to forward required planning applications to us or we will overlook sites
- ▶ NRMM planning condition must be included in relevant site approvals
- ▶ If not in conditions, NRMM must be referenced in CEMP or local Construction Code of Practice
- ▶ Preferably ask for NRMM condition to require discharge (as far as is possible) before construction commences
- ▶ Raise NRMM policy when on site for EPA monitoring, etc.

...final thoughts

- ▶ There is a desire from most in the industry to do the right thing.
- ▶ Compliance can be difficult, simply because of the technicalities
- ▶ We need to make administrative compliance as simple and painless as possible.
- ▶ No need for enforcement (yet).....compliance driven through education, co-operation and partnership.
- ▶ There is a noticeable change in the industry