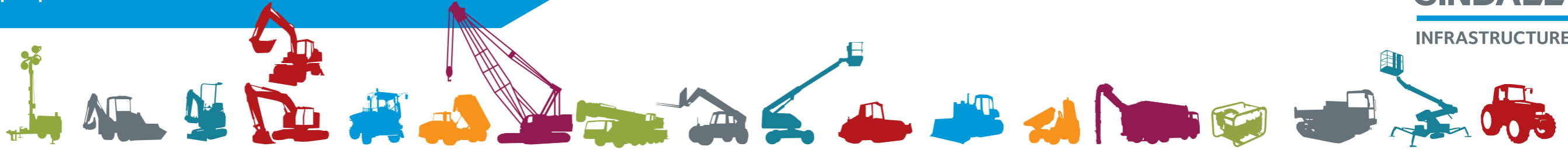


Plant and Equipment Minimum Standards



	Towable Equipment	180 Degree Excavator	Mini Excavator (up to 8T)	Tracked & Wheeled 360 Degree Excavator (9T and above)	Dual View Dumper (6T and above)	Articulated Dump Trucks (25T and above)	Crawler Crane	Mobile Crane	Telehandler	MEWP	Ride on Cabbed Compaction Roller	Tracked Dozer	Forward and Side Tipping Dumper (3T)	Vacuum Extractor, European Suction Excavator ESE 10/16/26/32T	Site Generators	Tracked Dumper	Spider Mewps	Agricultural Tractor
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MANDATORY

Competency	▶	▶	▶	▶	▶ ⁷	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
PPM	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
LOLER/PUWER Legal Standards eg ROPS, FOPS, mirrors, seat belts etc) are being met in addition to above	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
360 degree all round vision (cameras)				▶		▶	▶		▶ ²		▶	▶				▶ ⁴		
Variable track (<3T)			▶															
Mass deployment alarm	▶																	
Anti entrapment device										▶								
Work at height protection				▶		▶	▶											
Collision avoidance system front and rear (3T)													▶					
Rear collision avoidance system (> 6T) or rear camera					▶													
Double locking quick hitch (>5T)		▶	▶	▶														
Manual/direct attachments quick hitch (<5T)			▶															
Height and slew restrictors ¹		▶	▶	▶			▶	▶	▶									
Speed restrictors									▶									
Reversing/movement alarms ³					▶	▶	▶	▶	▶	▶	▶	▶	▶	▶				
FORS compliant (Fleet Operators Recognition Scheme).														▶				

● Environmental Requirements
London and Greater London Area

Some examples of NRMM equipment include generators, construction machinery, mobile cranes and telehandlers.

From 1st September 2015 NRMM of net power between 37kw and 560kw used in London will be required to meet the standards set out below. This will apply to both variable and constant speed engines for both nitrogen dioxide (NOx) and particulate matter (PM). These standards will be based upon engine emission standards set in EU Directive 97/68/EC and its subsequent amendments.

Engine emissions:

For non-road mobile plant this is Stage 5 engine emissions in the London Central Activity Zone and Stage 4 engine emissions for everywhere else

Some cities may introduce the Stage 5 engine emissions requirement in their air quality standards. For further details, see appendix C of; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672406/E31_-_Air_Quality_v1.5.pdf

For more details regarding this legislation and clarification on what equipment falls into scope please consult www.nrmm.london

DESIRABLE

Cabbed machine													▶					
Anti entrapment / secondary guarding system / material handling attachments (see appendices in document PET STD1)										▶							▶	
360 degree all round vision (cameras)									▶							▶		
360 degree all round vision (cameras) c/w pedestrian interface system ⁶				▶		▶	▶		▶		▶	▶				▶		
110v only outlets / 230v outlets to be blanked off															▶ ⁵			
Consideration to use only Stage V engines or better		▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶		▶	▶	▶	▶

This must be read in conjunction with the Plant and Equipment Minimum Standards which are available on IMS: <https://digest.intranet.int/home/ims/4-standards/plant-equipment-and-transport-standards.aspx>

- 1 Subject to risk assessment and dependant on operating parameters
- 2 Rear camera minimum requirement - 360 degree camera desirable
- 3 In built-up areas this may be replaced with a white noise movement alarm
- 4 Machines 11T and over require full 360 degree camera / all machines under 11T reverse camera minimum requirement
- 5 Applies to petrol site generators only with maximum output of up to 10KVA
- 6 This technology should be available early 2021
- 7 Operators for dual view machines must have completed full product familiarisation training

Everyone has the right to be **100% Safe**

Document Reference	Process Parent	Revision Status	Document Owner	Date	Page
PET STD1a	PET PRO	Rev 2	Jonathan Hall	Dec 20	1 of 1