

01 Mace Clean Construction



Objective

Be proactive to provide a clean and healthy work environment and eliminate/reduce exposures to respiratory hazards on site.

Benefits

A clean work environment and work processes makes for a safer and healthier workplace. For instance, minimising dust generating activities can help reduce the risk of trips, slips, and falls. In addition, poor air quality is one of the biggest killers in the UK, so reducing harmful emissions on site can help reduce respiratory problems for the workers and those affected by the work.

Criteria

The following guidance demonstrates minimum standards and best practice which contribute to the classification of a Clean Construction site.

Hazardous substances include (not exhaustive);

- Carbon particulates (PM₁₀ and PM_{2.5})
- construction dust (silica, wood, plasterboard etc)
- fumes (welding/diesel)
- Solvents
- Isocyanates
- Lead.

Bronze is Mace's minimum standard that is required to be met,

Silver + 3 best practice

Gold + 6 best practice (2 points awarded for an innovation point)

BRONZE (Mace minimum standards, all are mandatory) (LC) – Legal compliance				
Criteria		Why?	N/A	Met?
1 (LC)	All contractors to provide task specific risk assessments for all processes that generate substances listed above. A register to be kept of all substances that require specific attention above and beyond normal construction practices.	All tasks that generate airborne substances should be risk assessed and suitable and sufficient control measures identified.		
2 (LC)	Prevent or control exposures to hazardous substances at source	Using extraction/collection/suppression methods when substances are created preventing inhalation and the need to clean.		
3	Documented and monitored scheduled cleaning rota of site and offices using suitable and sufficient equipment and processes.	A significant portion of exposure to respiratory hazards is not directly a result from machines and processes but from material that deposits on floors and is swirled up into the air again. It is required to implement the proper cleanliness strategies to avoid making mess in the first place.		
5 (LC)	Respiratory Protective Equipment (RPE) face fit programme	All workers required to wear RPE meet the Mace visual standard. Compliance with this is monitored and documented.		

6 (LC) in LDN	Compliance with London's SPD chapter 7 , Cleaner Construction Machinery for London: A Low Emission Zone for Non-Road Mobile Machinery (NRMM). NRMM of net power between 37kW and 560kW will be required to meet the standards.	Mobile plant on sites contributing to poor local air quality experienced by operatives on site. Limit older (and worst polluting) equipment by complying with the requirements of the register and keeping a record of all plant on site.		
7	No idling policy	Engines of all vehicles and plant on site are not left running unnecessarily to prevent exhaust emissions (and noise). It is an offence under Regulation 98 of the Road Vehicles (Construction and Use) Regulations 1986 to leave a vehicle engine idling unnecessarily whilst stationary		
8 (LC)	Respiratory health surveillance programme in place.	Lung health surveillance is required under COSHH regulations to <ul style="list-style-type: none"> Protect the health of employees by early detection of adverse changes or disease; Collect data for detecting or evaluating health hazards; Evaluate control measures 		
9	Monthly "clean construction" tour on yellow jacket	To monitor if the standards are being adhered to.		

Best Practice

Silver + 3 best practice

Gold + 6 best practice (2 points awarded for an innovation point)

Below are suggestions of what could be considered best practice, however any action that eliminates or minimises exposures to respiratory hazards will be considered via a panel review.

Criteria	Why?	N/A	Met?
PR (Silver)	Clean Construction training provided to a minimum of 50% of site staff.		
PR (Silver)	Implement Mace's Indoor Air Quality Plan		
PR (Gold)	Monitoring of air quality site wide		
10	% use of electric or clean fuel equipment		
11	Beyond Compliance with London's SPD chapter 7 , Cleaner Construction Machinery for London. Plant onsite must meet one EU Stage above the current requirement (e.g. Where requirement is EU Stage IIIB, the site must achieve compliance with EU Stage		

	IV).			
12	Programme of personal exposure monitoring and compliance with Workplace Exposure Limits (WEL)	Personal exposure monitoring provides quantitative evidence that workplace exposure limits are being complied with.		
13	<p>Case study provided that demonstrates that the clean construction standard has implicated design. This can include:</p> <ul style="list-style-type: none"> • Offsite fabrication, pre-cast fixings to avoid drilling, “no drill site” • Evidence of elimination or substitution of: <ul style="list-style-type: none"> ○ demolition by handheld breakers, ○ hand scabbling of concrete, ○ processes giving rise to large quantities of dust (dry cutting, blasting etc) ○ on-site spraying of harmful substances • Solvent-based paints, thinners, isocyanates eliminated or reduced as far as reasonably practicable. 	Influencing the design to eliminate or substitute materials or processes to reduce risk of ill-health.		
14	“Bin the broom” policy	Dry sweeping enables harmful dusts and debris to become airborne and inhaled. A broom ban standard ensures that other measures (like vacuum) are used for housekeeping, wet sweeping should go through an approval process if vacuums are not sufficient.		
15	All staff should have training on onsite pollution policy as part of induction training			
16	Other – provide evidence of how you’ve contributed to the reduction of respiratory hazards.			
17	Clean Construction Travel Plan – Provision of lower air pollution routes to and from site using local air quality levels.	Ensuring that operatives use better routes with regards to air quality		
18	Green walls / roofs / benches	Removes particulates such as CO from the air		

19	Planting of a garden onsite – must be a least 1m3 per every 1,000 m3 of project	Removes particulates such as CO from the air		
20	Providing air filtration units for high risk dust zones	Scrubbers that improve air quality in internal spaces		
21	Provide a number of pool bikes for people to cycle around site or to and from work	Encourage better transport options		