|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | Introduction | | | | |
|  | An Air Quality Dust Risk Assessment was undertaken for planning application 2021/4356/P in terms of the individual level of risk for each of Demolition, Earthworks, Construction, Trackout.  This note provides the individual levels of risk to confirm the appropriate level of mitigation to employ in accordance with The Control of Dust and Emissions During Construction and Demolition SPG. | | | | |
| 2 | Original Assessment | | | | |
|  | The original assessment was undertaken using a methodology that we have used for many projects, both inside and outside London. This judges the overall level of risk for the generation of dust from the site; which is either high, medium or low. Whilst the impact assessment can be split down into various categories, the recommended dust mitigation is simply taken from a list representing either high, medium or low mitigation; with mitigation from the highest risk category selected where there is uncertainty regarding the level of mitigation to employ. Overall, the assessment is one of exercising professional judgement, with the guidance provided to aid the assessment.  The original assessment considered that the risk of dust emissions was low as the project would involve construction of structures located in the rear of the site, with less than  20,000 m3 built. The study area was considered to be of medium sensitivity, due to  10-100 residential properties within 50m. Appropriate mitigation corresponding to a low risk site was therefore recommended to be included in the CEMP for the site. | | | | |
| 3 | Dust Emission Magnitude: | | | | |
| SMALL SITE | <20,000 m3  non-dusty material, <10 m above ground level, work Autumn/winter | | | | |
| 4 | Criteria for Earthworks Dust Emission Magnitude | | | | |
| SMALL  SITE | <2,500 m2 site area, non-dusty soil, <5 earth moving vehicles active simultaneously,  <4 m high bunds, <10,000 tonnes material moved | | | | |
|  | As the site is a previously developed site in London, and is in a constrained location, there would not be extensive landscaping works involving moving large quantities of soil.  The site area to be excavated is approximately 50 m2 and therefore well below 2,500 m2.  The quantity of material excavated is less than 10,000 tonnes. Excavated arisings will be removed by a licenced waste removal company.  Overall therefore, the dust emission magnitude for earthworks is considered to be small | | | | |
| 5 | Criteria for Construction Dust Emission Magnitude | | | | |
| SMALL SITE | <25,000 m3 building volume, non-dusty material | | | | |
|  | The total building volume is approximately 400 m/3, and therefore within the small category.  Cement will be mixed within an enclosure to contain any dust. The facing of the building will be traditional brick and as such non dusty. All brick will be cut with a machine to ensure no dust arises. Overall, the construction dust emission magnitude is considered to be low. | | | | |
| 6 | Criteria for Trackout Dust Emission Magnitude | | | | |
| SMALL SITE | <10 HDVs out / day, non-dusty soil, < 50 m unpaved roads | | | | |
|  | The site access is via tarmac roads into an already developed site, with much less than 50 m of  unpaved roads. There will therefore be less than 10 HDVs per day leaving the site on unpaved ground, where they could accumulate mud and dirt that could be tracked out on the public highway. The trackout dust emission magnitude is therefore considered to be small. | | | | |
| 7 | Site Sensitivity | | | | |
|  | The dust risk assessment considered that the site sensitivity was low due to the risk of dust soiling and the presence of low sensitivity receptors in close proximity to the site. However, the site is constrained by buildings on all sides and therefore the buildings will act as a natural shelter, reducing the risk of wind-blown dust. There are no ecological receptors that could be affected by dust emissions from the site. | | | | |
| 8 | Summary of Risk | | | | |
|  | Potential Impact | Demolition | Earthworks | Construction | Trackout |
|  | Dust Soiling | Low | Low | Low | Negligible |
|  | Human Health | Negligible | Negligible | Negligible | Negligible |
|  | In accordance with the risk assessment, mitigation techniques for a low risk site should be incorporated for earthworks and construction. Mitigation for a negligible risk site should be incorporated for trackout. | | | | |
| 9 | Mitigation Techniques | | | | |
|  | Considering the individual risk elements has essentially led to the same conclusion as the original assessment apart for trackout; where the risk is judged to be negligible instead of low. The dust mitigation measures that should be applied are summarised below.  **Site Management**   * Display the name and contact details of persons accountable on the site boundary; * Display the head or regional office information on the site boundary; * Record and respond to all dust and air quality pollutant emissions complaints; * Make a complaint log available to the local authority when asked; * Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked; * Increase site inspection frequency during prolonged dry or windy conditions and when activities with high dust potential are being undertaken; and * Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation is recorded in the log book.   **Preparing and Maintaining the Site**   * Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible; * Erect solid screens or barriers around dusty activities or the site boundary at least as high as any stockpile on site; * Fully enclosure site or specific operations where there is a high potential for dust production and the site is active for an extensive period; * Avoid site runoff of water or mud; * Keep site fencing, barriers and scaffolding clean using wet techniques; and remove potentially dusty materials from site as soon as possible.   **Operating Vehicle/Machinery**   * Ensure all on road vehicles comply with the London Low Emission Zone; * Ensure all non-road mobile machinery (NRMM) comply with the standards; * Ensure all vehicles switch off engines when stationary; * Avoid the use of diesel or petrol powered generators where possible; * Impose and signpost a maximum speed limit of 10mph on surface haul and work areas * Implement a Travel Plan that supports and encourages sustainable travel (public transports, cycling, walking, and car-sharing).   **Operations**   * Only use cutting, grinding and sawing equipment with dust suppression equipment; * Ensure an adequate supply of water on site for dust suppressant; (using recycled water where possible); * Use enclosed chutes and conveyors and covered skips; and * Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use water sprays on such equipment where appropriate.   **Waste Management**   * Reuse and recycle waste to reduce dust from waste materials; and * Avoid bonfires and burning of waste materials on site.   **Demolition**   * Use of soft strip inside building. * Ensure effective water suppression is used during operations; * Bag and remove any biological debris or damp down such material before demolition.   Construction   * Avoid scabbling (roughening of concrete surfaces) if possible; * Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place. | | | | |