AIR QUALITY



KL-SG HSR FACT SHEET SERIES / ENVIRONMENT

THE KUALA LUMPUR - SINGAPORE HIGH SPEED RAIL PROJECT

The Kuala Lumpur-Singapore High Speed Rail (KL- SG -HSR) is a transformative transportation project that aims to facilitate seamless travel between Bandar Malaysia, Sepang-Putrajaya, Seremban, Melaka, Muar, Batu Pahat, Iskandar Puteri in Malaysia and Jurong East in Singapore.

This fact sheet is one of a series of fact sheets which aims to provides accurate information relating to environmental impact to the public.

WHAT ARE THE POTENTIAL SOURCES OF AIR POLLUTION?

The KL-SG HSR project will go through 3 distinct phases – design, construction and operations. During the design phase, no air pollution is expected as works will be confined to desktop related activities. However, air pollution is expected to be significant during the construction phase. During operational phase, the air pollution is expected to be insignificant.

The key project activities that will generate dust dispersion during construction phase are:

- Land clearing
- Earthworks
- Movement of vehicles (transportation of materials/ equipment)
- Demolition of buildings
- Tunnelling works

WHAT ARE THE EXISTING AIR QUALITY LEVELS?

MyHSR has performed an EIA* study and the existing air quality measured over 24 hours, (PM₁₀) along the alignment is summarized as below:

- Kuala Lumpur $35\mu g/m^3$ to $41\mu g/m^3$
- Selangor $23\mu g/m^3$ to $40\mu g/m^3$
- Negeri Sembilan $27\mu g/m^3$ to $41\mu g/m^3$
- Melaka $28\mu g/m^3$ to $57\mu g/m^3$
- Johor $20\mu g/m^3$ to $57\mu g/m^3$

WHAT ARE THE DEPARTMENT OF ENVIRONMENT GUIDELINES FOR AIR QUALITY?

The Department of Environment (DOE) has published the New Malaysian Ambient Air Quality Standards, 2013 which states the ambient air quality standards to be complied with during the construction and operational activities (refer table below).

Pollutant	Average Time	Unit	Standard (2020)
PM ₁₀	24-hour Annual	µg/m³	100 40
PM _{2.5}	24-hour Annual	µg/m³	35 15
Sulphur dioxide	1-hour 24-hour	µg/m³	250 80
Nitrogen dioxide	1-hour 24-hour	µg/m³	280 70
Carbon monoxide	1-hour 8-hour	mg/m ³	30 10
Ozone	1-hour 8-hour	µg/m³	180 100

New Ambient Air Quality Standards, 2013 | DOE, 2013

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WHAT ARE THE PREDICTED AIR QUALITY LEVELS FROM THE KL-SG HSR?

MyHSR is committed to adhere to the guidelines from the DOE as shown above.

Based on the Environmental Impact Assessment (EIA)* study, the expected increased PM_{10} levels from the construction of the KL-SG HSR, with control measures, ranges from $0.1\mu g/m^3$ to $58\mu g/m^3$.

PROPOSED MITIGATION MEASURES

Various mitigation measures have been proposed in the EIA* study to reduce the air pollution generated from the construction of the KL-SG HSR as follows:

- Soil loads on construction vehicles shall be kept covered during transportation.
- Topsoil stockpiles shall be kept covered or have a suitable dust palliative.
- Wet suppression shall be applied to unsealed roads if suspended particulate matter rises above the limits.
- Air quality monitoring shall be conducted to ensure compliance to the DOE's stipulated standard limits.
- Construction vehicles and machinery shall be regularly serviced and maintained.
- Regular spraying and sweeping at the entrance and exit points of construction sites. Partially vegetated land surfaces, and temporary stockpiled excavated soils are to be watered / wetted in order to minimize dust dispersions.
- Hoardings to be provided around the Project sites wherever feasible.
- Construction vehicles to go through washing bays before exiting.
- Speed limits to be implemented within the site to reduce dust churned up.





Lorry Covered with Tarpaulin during Transportation



Wheel Washing Facility



Water Bowser Dampener



Hoarding Erected along Construction Site

For more information, please contact:

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* Environmental Impact Assessment study for the KL-SG HSR project available for reference at <u>www.myhsr.com.my</u>.