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**Subject:** Tunnel cleaning Train briefing  
**Date:** 15 May 2012 12:01:27

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21 December 2011

**FINAL**

## **London Underground to commission new Tunnel Cleaning Train**

**FYI**

Isabel Dedring, Deputy Mayor for Transport, said: "Keeping London's tube network clean is absolutely vital for the reliability of the service as well as for maintaining a pleasant, dust free, environment for commuters and London Underground staff. If fine layers of dust are allowed to accumulate and settle on equipment it can cause signal failures and interfere with electrical systems. This new machine will be able to suck up four times more dust per kilometre than the current, hand cleaning method, and so will be a huge step forward in our effort to further reduce disruption."

**CLEARED LINE:**

### **London Underground to commission new Tunnel Cleaning Train**

London Underground said: "This specially designed train will suck up dust from deep level and sub-surface tunnels and will be able to clean the entire tube network in just two months, compared to the two years it takes using our current method. At the moment, London Underground employs a team of contractors who walk along the tracks vacuuming up the dust by hand during the few valuable night time engineering hours. We expect the new tunnel cleaning train to be in service in 2013."

### **Background**

#### **A more efficient way of cleaning**

- Cleaning tunnels by hand removes up to 150 kilograms of dust per kilometre while the new Tunnel Cleaning Train could suck up 600 kilograms of dust per kilometre. The train will extract four times as much as much dust per kilometre than a team of people doing the same job.
- Removing dust from the system is an ongoing process. We currently use six teams per night - each team consists of six people. A single shift worker can only clean a few hundred metres in a night shift so it takes the teams two years to get round the network.
- The new Tunnel Cleaning Train is expected to get round the network every two months. To meet the same performance LU would need 72 teams of people (432 cleaners), which would be totally impractical due to the night time track access required, which is needed for other maintenance.
- This very fine dust can settle on equipment and due to its conductive nature can cause signal failures and interfere with other electrical systems on the railway. This new mechanised way of cleaning will help extract the unwanted dust faster and more efficiently than with the current way of cleaning and therefore reduce service failures.
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#### **The design**

- The Tunnel Cleaning Train will consist of one train carriage with giant vacuum nozzles that will circle the train. On either side of this centre car will be a carriage to store the dust and contain the cleaning equipment. These carriages will be towed by a pair of Victoria line Tube carriages at either end which will contain the driver and cleaning

operator.

- Using recycled old 1967 Victoria line carriages will keep costs down, however these will need to be remodelled and upgraded to provide power to the cleaning unit.
- The new train will clean the entire surface of the tunnel including the walls and ceiling in one sweep.

## **ENDS**

### **Only if asked**

#### **Q: How much will the train cost?**

A: London Underground has a budget of £5 million to commission this new Tube Tunnel Cleaning Train. This includes the design and testing process. A further £1 million will be spent on upgrading the 1967 Victoria line carriages, with £2 million on a power distribution system and extensive safety systems for train and the operators. £1m will be spent on the setup of a maintenance and operation organisation and unloading facilities at several depots.

#### **Q: Can you run this train during customer service?**

A: No. The train would travel at six kilometres an hour which is too slow to run in passenger services.

#### **Q: Will this make the air in the tunnels safer?**

A: Cleared line (Previously cleared line with Mayor's office):

Howard Collins, London Underground Chief Operating Officer, said: "Recent monitoring of dust levels on the Tube shows they are less than a third of the limit set by the Health and Safety Executive for general dust. That standard remains the level required by the Health and Safety Executive and would be amended if they felt there was danger to our passengers or staff.

"It is supported by an independent report from the Institute of Occupational Medicine, which concluded tunnel dust on London Underground is highly unlikely to be dangerous and also made the point that comparing indoor with outdoor air pollution is misleading because of the totally different environments." **ENDS**

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