Rigorous checks

Cigarettes sold in Singapore have to meet tar and nicotine limits of 10mg and 1mg per stick respectively. The Health Sciences Authority runs tests on cigarettes in this four-step process.



1. Cigarettes are marked using a device to indicate when the smoking should stop – usually about 0.5cm from the cigarette butt.



2. The marked sticks are placed in a conditioning cabinet for at least 48 hours to ensure that the cigarettes can be smoked uniformly and continuously. This is because if a cigarette is too dry or moist, it may not burn properly.



3. Up to 20 cigarettes are fitted into a smoking machine, which automatically lights up the cigarettes. Tar and other chemicals are collected on filter pads as the cigarettes are puffed by the machine, which has an added function of collecting and analysing the carbon monoxide produced. The lab officer has to put on a special suit to prevent inhalation of second-hand smoke.



4. The filter pads are collected. The dark brown stains are what goes into a smoker's lungs. These substances are extracted from the filter pads using an organic solution and analysed. Any unused cigarettes are soaked in methanol to remove the nicotine before being disposed of.