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Up until now, a student's ride to school was full of more than paper airplanes and spit balls. It was loaded with toxic fumes.

Thanks to an open exhaust system in some older versions of city school buses, a student riding to school could be exposed to more exhaust than someone riding in a car outside, according to the Natural Resources Defense Council. To plug up those fumes, the City Council unanimously approved legislation Thursday, which will require all school buses to retrofit their exhaust systems. The bill would also require the city to retire school buses at an earlier age -- at 16 from 19 years old.

In addition, the council also approved legislation mandating standpipe and sprinkler alarm systems to detect breaches similar to those during the Deutsche Bank fire of 2007 and a tax credit for biotechnology small businesses.

Greener School Buses

Unlike regular vehicles and the Metropolitan Transportation Authority's buses, older school buses have an open casing system for its exhaust, meaning the fumes that travel from the engine to the exhaust pipe can actually leak into the inside of the school bus, said Rich Kassel of the Natural Resources Defense Council , a supporter of the legislation.

The council's bill (Intro 622), approved by a vote of 47 to 0, would take effect in September 2011 and apply to all diesel fuel-powered school buses.

Approximately 600 buses between the age of 16 and 19 would have to retire, because of the new age limitation. The city's school bus fleet comprises more than 7,000 buses.

"We are doing this so children who ride these buses every day travel in a cleaner more healthy environment," said Council Speaker Christine Quinn.

The retrofits would focus primarily on the pollution in the school bus. To meet the new requirements buses could use filters over their tailpipes and ventilation systems for the pipes traveling from the buses engine to the tailpipe. The new mandate, said Quinn, will cost approximately $20 million. The bill, she added, will not take affect for almost two years so the extra costs could be factored in when the city renegotiates its contracts with the private school bus companies next year.

According to the council , children in school buses can inhale seven to 70 times more exhaust than those in the vicinity of school buses.

"New York City has some of the highest child asthma rates in the country and our kids are breathing extra unnecessary pollution, while they are sitting on the bus on the way to school," said Kassel. "It's a fixable problem and this bill fixes it."

Mayor Michael Bloomberg also supports the legislation.

Deutsche Bank Revisited

Firefighters battling the Deutsche Bank fire looked for a working standpipe to stifle the blaze for 40 minutes, said Quinn.

That, she hopes, will never happen again.

The council unanimously approved two bills drafted in response to the 2007 blaze, one of which (Intro 1004-A) will require alarm systems for sprinkler and standpipe systems that would be go off if either of those systems were disconnected. The council also approved a bill (Intro 986-A), which requires a licensed professional or master plumber to test sprinkler and standpipe systems' pressure in new buildings.

In 2007, two firefighters died in the Deutsche Bank building after a standpipe had been disconnected during the building's deconstruction. These bills are just two of many the council

has passed in response to the fire.

Appearing at City Hall, Joseph Graffagnino Sr., the father of one of the firefighters who died in the blaze, said, "We are just trying our best to make it safe."

If an alarm were to go off at a construction or deconstruction site, work could not resume until the standpipe or sprinkler system is repaired, which the Fire Department would have to authorize.

Biotech Tax Credit

First mentioned in the speaker's State of the City , the council unanimously approved a $3 million biotechnology tax credit to encourage these emerging technology companies to relocate to New York City or to expand their operations.

Under the bill, (Intro 1065), small firms with less than 110 employees would be eligible to receive a break of up to $250,000 annually against the city's corporate or unincorporated business tax. The credit could go towards purchasing or renting equipment for research or for other research expenses.