Diesel linked to truckers' deaths

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The odds of dying from heart disease are nearly 50 percent higher for truck drivers than the general U.S. population, and diesel exhaust is a likely culprit, according to a new Harvard University study of importance to transportation-heavy California.

The findings are part of the largest and most comprehensive study yet conducted on the effects of diesel engine emissions on trucking industry workers nationwide, from long-haul drivers to office clerks, engine mechanics and dockworkers exposed to exhaust in the yard.

Harvard Medical School researchers said they examined the jobs and medical histories of more than 54,000 male Teamsters union members who had worked for one of four national trucking companies from 1985 through 2000.

The findings are important not only for transportation workers but also for people who commute in heavy diesel-fueled traffic or who live or work near truck terminals, ports and railroad yards, said Cynthia Garcia, a state air pollution scientist.

The study led last Thursday's agenda of the California Air Resources Board, which regulates diesel exhaust as a cancer-causing agent.

Garcia presented the research as further evidence on the risks of diesel exhaust and the need for cleaner-burning fuels and engines for diesel-powered vehicles and equipment generally.

She cited a Lawrence Berkeley National Laboratory study published earlier this month showing that diesel soot in the Bay Area has decreased nearly three-fold in the past 40 years even as fuel consumption increased six-fold. The decline has been more pronounced for truckers and others who breathe diesel exhaust daily on the job.

"This reduction in ... diesel engine soot is due in large part to (state air board) and federal regulations and enforcement programs," Garcia told the board.

The Harvard study was published in the August edition of Environmental Health Perspectives, a scientific journal.

Researchers said they were not surprised to find that the trucking industry workers had a lower overall death rate than the general population. But they were struck by the higher death rates for heart disease, particularly among truck drivers – 49 percent – and dockworkers, 32 percent. The lung cancer death rate also was elevated among drivers and dockworkers, by 10 percent.

While the study singles out diesel soot and other breathable exhaust particles as suspect, it did not examine individual exposures to the exhaust or workers' lifestyles and diet, which also could explain the higher incidence of heart attacks and lung cancer.

The trucking industry workers overall were heavier smokers than the general population but not so much as to explain the elevated lung cancer and heart disease, the study said.

The results are consistent with numerous smaller studies of workers exposed to vehicle exhausts, including truck drivers, though the link between lung cancer and diesel exhaust is still being questioned, the study said.
The next phase of the nationwide trucking industry study will examine differences in diesel exposure between different jobs and trucking terminals.