

The New York Times

FROM THE DIRECTORS OF  
LITTLE MISS SUNSHINE

June 12, 2012

# W.H.O. Declares Diesel Fumes Cause Lung Cancer

By DONALD G. McNEIL Jr.

Diesel fumes cause lung cancer, the World Health Organization declared Tuesday, and experts said they were more carcinogenic than secondhand cigarette smoke.

The W.H.O. decision, the first to elevate diesel to the “known carcinogen” level, may eventually affect some American workers who are heavily exposed to exhaust. It is particularly relevant to poor countries, where trucks, generators, and farm and factory machinery routinely belch clouds of sooty smoke and fill the air with sulfurous particulates.

The United States and other wealthy nations have less of a problem because they require modern diesel engines to burn much cleaner than they did even a decade ago. Most industries, like mining, already have limits on the amount of diesel fumes to which workers may be exposed.

The medical director of the American Cancer Society praised the ruling by the W.H.O.’s International Agency for Research on Cancer, saying his group “has for a long time had concerns about diesel.”

The cancer society is likely to come to the same conclusion the next time its scientific committee meets, said the director, Dr. Otis W. Brawley.

“I don’t think it’s bad to have a diesel car,” Dr. Brawley added. “I don’t think it’s good to breathe its exhaust. I’m not concerned about people who walk past a diesel vehicle, I’m a little concerned about people like toll collectors, and I’m very concerned about people like miners, who work where exhaust is concentrated.”

Debra T. Silverman, a cancer researcher for the United States government who headed an influential study published in March that led to Tuesday’s decision, said she was “totally in support” of the W.H.O. ruling and expected that the government would soon follow suit in declaring diesel exhaust a carcinogen.

Three separate federal agencies already classify diesel exhaust as a “likely carcinogen,” a “potential occupational carcinogen” or “reasonably anticipated to be a human carcinogen.”

Dr. Silverman, chief of environmental epidemiology for the [National Cancer Institute](#), said [her study](#) of 50 years of exposure to diesel fumes by 12,000 miners showed that nonsmoking miners who were heavily exposed to diesel fumes for years had seven times the normal lung cancer risk of nonsmokers.

The W.H.O. decision was announced Tuesday in Lyon, France, after a weeklong scientific meeting. It also said diesel exhaust was a possible cause of [bladder cancer](#). Diesel exhaust now shares the W.H.O.’s Group 1 carcinogen status with [smoking](#), asbestos, ultraviolet radiation, alcohol and other elements that pose cancer risks.

Dr. Silverman said her research indicated that occupational diesel exposure was a far greater lung cancer risk than passive cigarette smoking, but a much smaller risk than smoking two packs a day. For years, the Environmental Protection Agency, the National Institute for Occupational Safety and Health, and the National Toxicology Program of the National Institutes of Health have rated diesel as a potential, not proven, carcinogen.

The Diesel Technology Forum, which represents car and truck companies and others that make diesel engines, reacted cautiously to the W.H.O. ruling, noting that modern diesel engines used in the United States and other wealthy countries burn low sulfur fuel, so new trucks and buses emit 98 percent less particulates than old ones did and 99 percent less nitrogen oxide, which adds to ozone buildup.

Allen Schaeffer, the forum’s executive director, said the studies considered by the W.H.O. “gave more weight to studies of exposure from technology from the 1950s, when there was no regulation.”

Ultra-low-sulfur fuel was introduced in 2000 and became mandatory in 2006, he said, and about a quarter of the American truck fleet was built after that mandate was passed. The government estimates that the entire truck fleet is replaced every 12 to 15 years, he added.

Many studies have suggested links between diesel and lung cancer, but Dr. Silverman said hers was the first to measure with precision how much diesel exhaust each group of mineworkers was exposed to. Her study clearly established that the more a miner was exposed to diesel, the greater his cancer risk, she said.

“Now we need to focus on managing exposures to diesel exhaust,” Dr. Brawley said.