The Washington Post

11/17/2009

Low-emission locomotives may boost public health

By Kari Lydersen

A new crop of "ultra-low emission" short-haul locomotives could have significant public health benefits, according to rail industry officials and federal health experts, who suggest that they could help decrease the risk of cancer and heart and respiratory disease for people living near rail yards.

Switcher engines that move train cars between tracks in rail yards make up a small percentage of the trains in service nationwide. But their emissions have a disproportionate health impact, since an engine idling in a rail yard near an urban area affects far more people than one chugging across the Plains.

Railroad companies typically retire their oldest, and dirtiest, locomotives to rail yards and rarely buy new ones, industry officials say. But government incentives and pressure on state and municipal governments to meet federal air-quality standards have created a market for clean, new switcher engines.

An independent, family-run Illinois company has emerged as the industry leader in this niche.

Last Tuesday, an engineer fired up a shiny red-white-and-blue GenSet N-ViroMotive amid rusted engine blocks and jumbled train parts in the Chicago suburb of Dixmoor. After an initial puff of brown smoke, its three stacks yielded no visible sign of emissions. There was also no smell, and there was moderate noise.

The train was a stark contrast to an old, yellow locomotive the engineer had brought to life minutes earlier, spewing thick, bluish diesel fumes.

The GenSet emits up to 90 percent less nitrogen oxide and particulate matter than does a traditional engine carrying freight and passengers for short distances or operating in switch yards. It has modern pollution controls and uses three smaller engines instead of one large one, allowing the engineer to use only as much power as needed. Traditional locomotives run at full throttle even when only idling to keep warm or wait for track clearance.