

## **I/M program's effects studied**

### **SUCCESS: City air quality has improved; did the testing help?**

By DOUG O'HARRA

Anchorage Daily News

Published: October 30, 2005

Say your late-model car fails its mandatory emissions test, forcing you to shell out a couple hundred bucks to meet city rules and renew your registration.

Was the hassle really worth it? Did you significantly reduce the poison dumped from your tailpipe or not?

To measure how well the city's inspection and maintenance program cuts carbon monoxide pollution in winter, the city plans to drive at least 200 errant cars or light trucks on two simulated 54-minute commutes using a special treadmill in an ice-cold Midtown garage.

Owners who volunteer their vehicle must leave it with technicians at the city's emissions testing center near Potter Drive over two different nights, once after the vehicle fails its I/M test, and once after it is fixed and it passes.

Only certain vehicles built in 1996 or later will qualify. (Some all-wheel-drive cars won't work, for instance.) For their trouble, owners will get \$250, plus \$50 for gasoline.

And the city will get a reality check on a program credited with reducing Anchorage's CO levels by 60 percent since 1985.

The test will include an overnight "cold soak" in frigid temperatures, a cold morning start followed by 10 minutes of idling, then seven miles of street-style start-and-stop driving, some up to 56 mph, all on a sophisticated roller system called a dynamometer.

Just to make it interesting, the car will be shut off for 10 minutes along the way, imitating a dash for, say, a double-shot grande with cream.

"It represents actual driving," said Keith Beeson, a former manager of the city's I/M program who is working on the study with consultants.

Technicians will measure CO and other pollutants spewing from the exhaust during every second of the trip, gathering thousands of bits of data that will be analyzed next summer by a team of scientists.

The before-and-after measurements should show what the I/M repair process actually accomplishes with each vehicle, said Steve Morris, the city's air quality program manager. The \$800,000 study may be the first time anyone has put an emissions program in a northern city to such a rigorous test.

"This is fun stuff," Morris said. "It makes a lot of sense to do it."

The study, starting Tuesday and continuing until April, will ultimately help Anchorage decide whether the 20-year-old program needs a tune-up of its own, say Morris and other health officials. Since 1985, vehicles registered to Anchorage residents must be tested periodically for emissions and other pollution issues. The test, available at 64 garages around town, can cost anywhere from \$15 to \$50. Owners must also pay \$18 for an I/M certificate.

The city has not violated federal CO standards in nearly 10 years and may now be eligible to change the program -- or even phase it out. In 2004, the Environmental Protection Agency upgraded the city's status from "noncompliance" to "maintenance" for the first time in decades.

"We want to make sure the air remains clean in Anchorage with CO, and we want to make good decisions," said Mark Butler, spokesman for the municipal Department of Health and Human Services. "What is it we actually get for the money spent? Because this is funded entirely from user fees. The private citizen is paying for this. Are we getting what we're paying for? Should we change it?"

One key unanswered question focuses on the morning warm-up and whether the I/M process really makes a difference for CO emissions outside your front door, Morris said.

The practice of running a cold vehicle on a winter morning spews tons of CO into the air, pushing some Anchorage neighborhoods to unhealthy levels. The city has encouraged people to keep their engines warm overnight with engine block heaters or garages. Over the past few years, the city has subsidized the installation of engine block heaters and also mounted a campaign to plug in vehicles in weather colder than 20 degrees Fahrenheit.

EPA models predict that such programs will reduce CO levels, but they're based on the California assumption that people warm up their cars for about 20 seconds, said Anne Schlapia, with the city's air pollution agency.

A study that watched 1,300 cold starts by real people in local neighborhoods here found that people let their cars run about 30 times as long, sometimes up to an hour, she said. "Sometimes they change their minds, turn off the car and go back inside."

No one really knows how Anchorage vehicle emissions change during the long morning warm-ups and frigid weather commutes, Schlapia and Morris said. Vehicles have gotten much cleaner over the past decade, and other factors could be shifting the city's CO levels.

Over the years, the program has evolved. Vehicles registered to Anchorage residents and regular commuters from the Mat-Su valleys must be tested every other year, and new vehicles don't need a test for two years. About 200,000 locally registered vehicles get tested over the course of two seasons, Beeson said.

The Assembly paid for the study with \$800,000 from the Federal Highway Administration, the health department said. About \$600,000 will pay for four employees to test 200 vehicles over the next six months and detailed analysis next summer by Sierra Research and Envirotech Systems, Inc. About \$140,000 will pay for publicity and incentives to vehicle owners.