

# 2011 INDOOR AIR QUALITY STUDY

## Jefferson County, Alabama

The indoor air quality study assessed the levels of indoor air pollution in 20 public places across Jefferson County. Places that allow smoking were then compared to smoke free sites and outdoor air to illustrate the dangers of exposure to secondhand smoke.

### Background:

- Particle pollution is released in significant amounts from burning cigarettes and is easily inhaled deep into the lungs. This particle pollution is associated with lung and heart disease, stroke and death.
- The air quality monitor (shown on left) was operated for at least 30 minutes and up to 90 minutes in each restaurant or bar to collect data on particle pollution inside each venue.
- Twenty venues were sampled, including 6 smoke free restaurants/bars and 14 smoking restaurants/bars.
- These 20 venues are located throughout Jefferson County and are a representative sample of all venues in Jefferson County. The names of the locations are confidential.



**TSI SIDEPAK AM510 PERSONAL AEROSOL MONITOR**

### Findings:

- Locations that allow indoor smoking are drastically more polluted than smoke free sites and significantly more polluted than outdoor air. The levels of pollution in locations that allow smoking indoors far exceed the US Environmental Protection Agency (US EPA) standards for healthy outdoor air. Indoor pollution levels reach the **very unhealthy** range in places that allow smoking by US EPA standards as seen in Figure 1.
- In locations that permit smoking indoors, the level of particle air pollution was **37 times higher** than the level in smoke free restaurants and **14 times higher** than the outdoor air (Figure 1).
- Employees in locations that allowed indoor smoking are exposed to levels of air pollution that is **3.5 times higher** than the safe annual level established by the US EPA. These highly dangerous levels are only recorded in outdoor air during forest fires.

### Conclusions:

- There is no safe level of exposure to secondhand smoke.
- Smoke free indoor policies in all workplaces, restaurants and bars are the only way to eliminate secondhand smoke and improve worker and patron health.

Figure 1 Average Level of Indoor Air Pollution in Jefferson County Locations Sampled

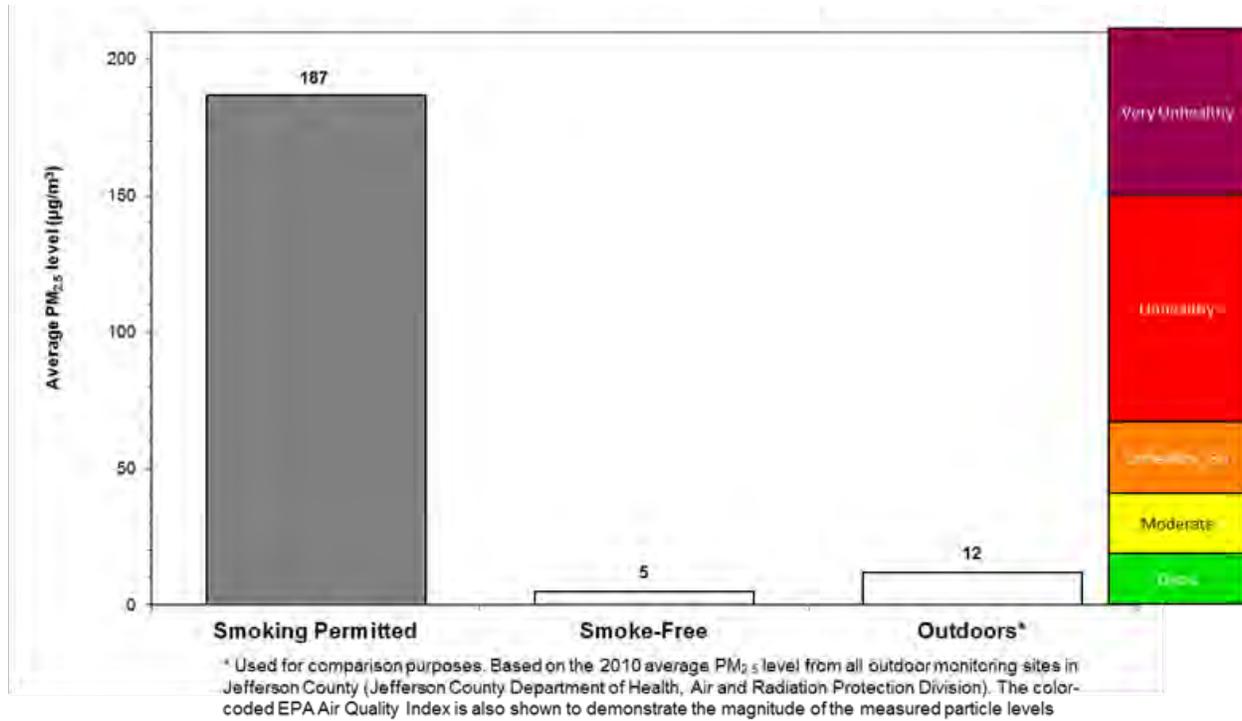


Figure 2 Jefferson County Air Quality Monitoring Study

