SUMMIT
ENVIRONMENTAL, INC.

II. TOBACCO SMOKE

Environmental tobacco smoke (ETS) is a major source of indoor air contaminants. Environmental tobacco smoke is a complex mixture of over 4,000 chemicals found in both vapor and particle phases, many of which are known toxic and carcinogenic agents. The EPA has classified ETS as a known human (Group A) carcinogen and estimates that it is responsible for approximately 3,000 lung cancer deaths per years among nonsmokers in the United States.

TESTING:

Tobacco smoke is a type of particulate matter and can be tested by many different methods.

Gravimetric Samplers: sample air is accelerated through one of more stages of an inertial impactor to separately deposit size fractions. Aerosols mass is determined by weighting tared substrate in the lab.
Optical Backscatter: Aerosol mass is measured on backscatter from a calibrated light source probing a characteristic sample volume.

REMEDIAL ACTION:

The most effective solution is to eliminate all smoking from an individuals indoor environment with smoking prohibition. Constructing smoking rooms that are separately ventilated has also been effective.
Most air cleaners can remove some tobacco particles, but most cannot remove the toxic gaseous pollutants, while others can remove some but not all.