

KIMBALL PHYSICS TOBACCO POLICIES:

Please note that Kimball Physics has some unusually strict tobacco policies. The policies were voted into existence by employee co-workers; and they apply to everyone.

First: No tobacco use is allowed inside any Kimball Physics building or motor vehicle at any time. Further, no tobacco product is to be brought into any Kimball Physics building or motor vehicle at any time.

Second: No tobacco use is allowed anywhere outside on Kimball Physics grounds (including entry areas, parking lots, picnic areas, grassed areas, fields, and hundreds of acres of woods). No tobacco use is allowed inside any motor vehicle, irrespective of ownership, while located on Kimball Physics grounds.

Third: No tobacco-residuals emitting person, article of clothing, or other object is allowed inside any Kimball Physics building. This restriction also applies to anyone or anything emitting characteristic tobacco odors. Anyone who has used a tobacco product within the previous two hours is automatically to be turned away, unless measures have been taken such that residuals-sensitive persons are not exposed. The determining factor, regarding allowable residuals levels and/or exposure durations, is whether anyone is either significantly bothered, or even worse, made ill.

Fourth: The policies apply to all. Policies are enforced by co-workers -- at the discretion of each individual co-worker. However, it is the responsibility of the controlling co-worker to minimize the exposure of residuals-sensitive persons. Tobacco policies are not enforced during emergency or crisis situations.

BACKGROUND: What are tobacco residuals? Why do they matter?

Tobacco combustion products do not suddenly disappear when a cigarette goes out. The chemical vapors and microscopic airborne particulates slowly dissipate, mostly by being blown away. However, fractions of these materials are trapped in a smoker's clothing, hair, lungs, etc., as well as on furniture, auto upholstery, and similar surfaces. Some of the vapors and particulates are then re-emitted over a period of hours (sometimes much longer). These re-emitted materials, plus any remaining not-yet-dissipated original smoke, are called tobacco residuals.

The chemical composition of tobacco residuals is related to that of the original tobacco smoke, but at an intensity which is considerably reduced. Unfortunately, when a smoker (no longer smoking) moves to a new location, the tobacco residuals he emits are often of sufficient intensity to cause both health problems and annoyance to individuals at the new location. Conversely (as is widely accepted), if an individual enters an area formerly occupied by a smoker, a contaminated automobile for example, the same effects occur. This sensitivity, of course, explains the need for non-smoking hotel rooms, non-smoking rental cars, tobacco-free taxis, and the like. A surprisingly large fraction of the population is sensitive to tobacco residuals.

Minor (and not so minor) illnesses which are caused by tobacco residuals include: headaches, stinging eyes, burning or constricting throats, chest congestion, hoarseness, coughing, nose bleeds, sinus problems, stomach pains, ear aches, asthma attacks, etc. The widely publicized tobacco-related major diseases like lung cancer presumably also occur at low exposure levels. However, they typically take decades to develop, affect only a minority of exposed persons, and have a causality which is hard to prove. The Kimball Physics policies are focused on lesser maladies, which occur in real time, where the cause-and-effect relationship is brutally clear, and where tobacco residuals are obviously the cause. Even if major illnesses were never encountered, it is simply not permissible to knowingly or carelessly make others sick, even mildly sick.

Kimball Physics is a high-tech manufacturer of scientific instruments. It is an MIT spinoff, and is located in a half dozen buildings on top of a hill in southern New Hampshire. The company is small, about 50 people, and is run by scientists. The president is Dr. Chuck Crawford, a physicist, and a former MIT professor.

Kimball Physics designs and manufactures electron optics used all over the world. A recent example was on the space shuttle Columbia, up in space at the end of 1996. (That was the flight with the stuck airlock hatch.) The major experiment on that mission involved growing semiconductors in space. Kimball Physics built the major piece of analytical equipment for that experiment. The equipment worked well and the experiment was a success. The company also makes electron sources for electron microscopes, electron optical equipment for semiconductor manufacturing, and various types of analytical instruments based on electron optics and ultra-high vacuum.