Philip Morris USA Date: July 27, 1993

PM #:

INVENTION RECORD

(Preliminary Disclosure for Consideration of Patentability)

TO: Patent Counsel

1. **DESCRIPTION OF THE INVENTION** (in sufficient detail for the invention to be understood; please identify or attach copies of any reports, notebook pages, or other documents containing particular examples or other pertinent data):

The invention is a reduced sidestream smoking article incorporating poly(isopropenyl acetate) in either or both of the following ways and the use of this polymer to produce the smoking article:

1. A low sidestream wrapper onto which poly(isopropenyl acetate) has been applied at a concentration of between 0.01% to 15% (w/w).

2. Poly(isopropenyl acetate) applied to the "filler" of the article at concentrations between 0.01% to 3% of the polymer (w/w).

Supporting Documents are attached.

2. **OBJECTS/ADVANTAGES OF THE INVENTION:**

One of the challenges faced by the cigarette industry has been to produce cigarettes which have low levels of visible sidestream smoke. While there have been many claims to the contrary, all attempts to accomplish this with cigarettes made with modified wrappers have lead to products which deliver a distinct off-taste to the mainstream smoke.

It has been discovered that low sidestream (LSS) cigarettes using LSS wrappers coated with poly(isopropenyl acetate) or filler containing the polymer, are perceived by the smoker as not having the off-taste which is characteristic of LSS cigarettes.

It is known that poly(isopropenyl acetate) decomposes between about 160 to 300 degree centigrade to produce acetic acid. Evaluation of a wrapper containing the polymer under controlled heating conditions, shows that the polymer releases acetic acid before the wrapper's cellulose begins to decompose.

Studies in which acetic acid or an acetate salt have been applied to filler of LSS cigarettes or on LSS wrappers have not produced the marked reduction in the off-taste characteristic of LSS cigarettes observed when poly(isopropenyl acetate) is used. Exactly how the polymer and the acetic acid generated from it eliminate/mask the off-taste is unknown.