CLAIMS

1. A porous polymeric membrane which comprises a porous membrane having an average pore size between:

0.1-0.22 microns, formed of a first polymer,

said porous polymeric membrane having a surface which is modified on its surface with a cross-linked second polymer formed from a polymerizable fluorine containing monomer, said monomer being polymerized and crosslinked on said membrane, wherein C6 PFCA (Perfluorocarboxylic acid) is less than 25 ppb, C8 PFCA is less than 25 ppb and C9-14 PFCA combined is less than 25 ppb.

2. The porous polymeric membrane of claim 1 contains less than 25 ppb of C6 PFCA (Perfluorocarboxylic acid), less than 25 ppb of C8 PFCA and less than 25 ppb of combined C9-14 PFCA after it is exposed to gamma radiation of up to 50 kGy.

3. The porous polymeric membrane of claim 1 wherein the first polymer comprising of polyvinylidene fluoride, nylons, polyamides, polyimides, polyethersulfones, polysulfones, polyarylsulfones, cellulose, regenerated cellulose, cellulose esters, acrylic polymers methacrylic polymers, copolymers acrylic methacrylic polymers, and combinations thereof.

4. The porous polymeric membrane of claim 1, wherein the membrane is an asymmetric membrane or a symmetric membrane.

5. The porous polymeric membrane of claim 1, wherein the membrane comprises a polyvinylidene fluoride membrane or a polyethersulfone membrane.

6. The porous polymeric membrane of claim 1, can be incorporated into a filter unit to facilitate venting of air or gas.