The following is a quote from the October 1988 report Y-2406 (UC-705,) which was freely circulated and publicly open and available from the Department of Energy. This was written in such a way that, with some chemistry background, the DOE management, reviewers, and money managers might understand what is being said.

“The first case, the physisorption into a surface condition resembling the liquid state, is characterized by the complete mobility of the molecules in the plane of the surface. There is a two-part attractive surface potential for molecules normal to the surface:

1. The attraction between the molecule and the surface experienced at positions where there are no intervening adsorbed molecules and
2. The attraction between the adsorbed molecules.

Each molecule is traversing the surface freely enough to experience and average attractive potential consisting of both of these potentials. The potentials of the free surface are not strong enough to localize the position of the adsorbed molecules, thus, the entire surface is experienced by each adsorbed molecule. Molecules also do not interfere with each other’s motion on the surface, If two molecules attempt to occupy the same space, then they simply stack at least momentarily. A consequence of this quality is that there is only statistical “big box” into which the adsorbing molecules are placed, which determines the construction of the ensemble. This condition exists even though at any one instance, the molecules will have defined positions. In quantum mechanical terms, the following is implied: the energy state of each adsorbed molecule is higher than the tops of the potential wells in the vicinity of the surface. The molecules are, therefore, reacting to an average observed potential energy.”