Understanding Science and Scientific Methods:

An Overview for Lawyers

SUMMARY – 10 October 2005

Class on 3 October 2005 Covered Topics 2.c.iii. and 2.d. (part) on the Syllabus

A. The “Ranch Hand” Study (Cohort Study) – key finding, the mortality rate of the group is the same as the matched comparison group.

B. Dioxin Levels in the General Population:
   1. In 1969 the National Cancer Institute revealed that 2,4,5-T was the most potent man-made cause of birth defects (Teratogen) ever tested in mice. Later it was discovered that it was the Dioxin in 2,4,5-T that was the cause.
   2. Other tests showed dioxin to be the most potent Carcinogen ever tested in laboratory animals.
   3. The concentration of dioxin in body fat ranges from 0 to 20 parts per trillion (ppt).
   4. The level has fallen by at least a factor of 2 since the 1970s.
   5. Dioxin has a half-life of 7-20 years (not precisely known).

C. Agent Orange in the Courtroom:
a. Judge Weinstein held that the settlement was reasonable.

b. The Chemical Companies admitted no liability

c. Judge Weinstein held hearings in several cities and took testimony from Vietnam veterans and their families.

d. Judge Weinstein very dubious that the Veterans had a case. Scientific causality very doubtful and they would have likely lost in court.

2. *Dow Chemical vs. Stephenson (2003)*

   a. **Can people who are unaware of their involvement in a class-action suit later argue that they were not properly represented?**

   b. **What standard should be used if those lawsuits are allowed?**