TOPICS TO BE COVERED IN THE FEASIBILITY STUDY OF

A LIGHT AMPLIFYING SCREEN [redacted] STATINTL

This contract's main goal is to determine the feasibility of utilizing a dipolar suspension in the development of an advanced rear projection screen. In making this determination certain questions must be answered; some of which are listed below:

1. If a certain level of U-V radiation is required to ionize the molecules, then a higher level must be transmitted through the film because certain losses are incurred at the interfaces of the screen, and due to internal reflections before the radiation reaches the dipolar layer. What is the actual quantum efficiency?

2. What is the attentuation of the original imagery by the screen?

3. What is the selectivity of the Ultraviolet illumination?

4. Will the U-V illumination control the screen to the same degree as it is transmitted by the original; i.e., is the system linear.

5. Will the projected image be as sharp as one on a conventional rear projection screen?

6. Will the ionized material de-ionize with respect to time; furthermore, will its ionizing characteristics vary with age and/or extended use.

7. Will the internal reflection of the U-V, due to the interfaces of the screen affect the presentation.

8. Since the screen is a fluid, there could be thermal gradients due to uneven heating; will this affect the presentation?

9. How will the electric field be controlled?

10. What will the time required for the ions to recombine when the field is released.

11. Is the energy level that is required to pass through the film less than that presently transmitted through the film in conventional rear projection viewers?

12. To what degree will there be migration of the ions over the surface of the screen -- causing blurring of the image -- after the screen has been illuminated?

13. How long can an image be held without any significant loss of quality?

14. Does the energy from the auxiliary illumination effect the dipole suspension? If so, how and to what degree does it effect the output presentation.

15. What will be the quality of the output presentation with respect to:

a. Modulation Transfer Function

b. Density range

c. Density discrimination.