

LOG OF MEETING

DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Smoke Detector Testing conducted at Texas A&M University

DATE OF MEETING: October 5, 1999

DATE OF LOG ENTRY: October 5, 1999

SOURCE OF LOG ENTRY: Arthur Lee, ESEE *ay.*

LOCATION: East West Towers, Room 715, 8.30 am

CPSC ATTENDEES: Arthur Lee, ESEE
Hammad Malik, ESEE
Terry Van Houton, ESHF
Margaret Neily, ESME

NON-CPSC ATTENDEES: Don Russell, Ph.D., Texas A&M University

SUMMARY OF MEETING: Dr. Russell introduced himself and explained what role he plays at Texas A&M University. He expressed a concern with ionization type smoke detectors and how some ion detectors would not trigger until near flashover. He explained how smoke box testing or 6'x'6'x 6' room testing only shows first-order effects. Dr. Russell discussed the full-scale testing conducted at Texas A&M. The testing involved a 1-story ranch type residence. He tested multiple detectors at one time against smoldering and flaming fires. Some ion detectors reacted up to 10-15 minutes apart. Detectors at different areas showed signs of problems during testing. He stated some detectors never sounded during the test. He talked about problems with the present UL standard for smoke detectors and how it does not represent real fires. In his testing, he collected CO, temperature, and obscuration measurements. He talked about what smoke characteristics that he believes would mainly affect ion detectors.

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