



FIRE PROTECTION ENGINEERS  
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**PROJECT: 1213b:  
Direct Visual Signaling as a  
Means for Occupant Notification  
in Large Spaces**

**PARTICIPANT INFORMATION SHEET & CONSENT FORM**

<b>Project Title:</b>	Direct Visual Signaling as a Means for Occupant Notification in Large Spaces
<b>Principal Investigator:</b>	Robert P. Schifiliti, P.E. R.P. Schifiliti Associates, Inc.
<b>Protocol:</b>	rpsa File: Test Protocol rev 1.doc
<b>Sponsor &amp; Financial Support:</b>	The Fire Protection Research Foundation Kathleen H. Almand, P.E., Executive Director 1 Batterymarch Park, Quincy, MA 02169 617.984.7282
<b>In-kind Support</b>	The Home Depot TVA Fire & Life Safety, Inc.

Please read this form carefully. Take time to ask as many questions as you want. If there are any words or information you do not fully understand, the project staff will explain them to you. Each page of this form (total number of pages = 4) must be initialed and the last page must be signed and dated before you participate in the study.

**INTRODUCTION**

You are invited to participate in a research study of fire alarm strobe light effectiveness in large volume spaces. We hope to learn whether or not the current code requirements for visible fire alarm signaling are effective in large spaces such as warehouse stores.

Your participation in this study is entirely voluntary. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time. This research study is looking for number of people who are both hearing able and hearing impaired. Volunteers are not being financially compensated. Nor will they receive any type of medical care or advice.

**PURPOSE**

The purpose of the study is to determine the effectiveness of fire alarm strobe lights as a means for occupant notification. This phase (Phase 1) is limited to testing in large volume stores with high ceilings. The systems being used in the tests have been designed and installed in compliance with the requirements of the 2002 edition of NFPA 72, the *National Fire Alarm Code*<sup>1</sup>.

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## DURATION

Volunteers are asked to participate in at least one scheduled test. The test will take place between 7:00 AM and 7:30 AM. Afterwards, volunteers will complete a follow-up survey. It is expected that volunteers will be finished by 8:00 AM. After completing the follow-up survey, volunteers are finished with their participation in the study. There is no long term follow-up planned.

## WHAT DO YOU HAVE TO DO?

If you choose to participate in this study, after signing this consent form you will be asked to complete a short pre-test survey. Next you will be escorted to a specific area of the test store to “shop” in specific aisles. You will be given a notepad with instructions and a space for notes.

At some point the fire alarm system will be activated. If you are alerted by the fire alarm, you should note your location and write down how you were first alerted. The form will ask specific questions. You should then proceed to the gathering location in the front of the store.

Finally, you will be interviewed about your experience and perceptions.

If at any time you have questions, concerns, or decide to end your participation, simply come to the registration area and let one of the staff know.

## WHAT ARE THE POSSIBLE RISKS OF TAKING PART?

The only known risk involved in this test is to persons with a certain type of epilepsy.

Approximately one in two hundred people have epilepsy. Of those, 3 to 5 % may have seizures induced by flashing lights, such as strobe lights<sup>ii</sup>. Thus, approximately one to three people out of every 10,000 may have photosensitive epilepsy.

The frequency of the flashing light is an important trigger for photosensitive epilepsy. Generally, the flash rate must be between 5 and 30 flashes per second (hertz). Some people may be sensitive at higher frequencies. It is uncommon to have photosensitivity below 5 hertz.

The National Fire Alarm Code requires strobe lights to flash between one and two times per second (1 – 2 hertz). This is well below the 5 hertz threshold. In addition, the code requires systems to be designed and installed such that a person can not see more than two strobe lights at a time unless their flashing is synchronized. The systems being utilized in these tests have been designed and installed conform to these requirements.

Testing of photosensitivity is not a part of this study. If you suffer from any form of epilepsy please do take part in this study. If you have had seizures in the past, but are unsure if you have epilepsy, you should not participate in this study and you should seek medical advice.

Initials:

### **WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?**

There are no personal benefits to you as an individual as a result of participating in this study. The only possible benefit is the effect that this research may have on future fire alarm system designs.

### **COMPENSATION / REIMBURSEMENT**

Volunteers are not being financially compensated or reimbursed for expenses. If notified in advance, we may be able to provide transportation to and from the test location.

### **COMPENSATION FOR STUDY RELATED INJURY**

If you are injured or harmed as a result of your participation in this research project, you should seek medical help immediately. There are no special compensation arrangements as a part of this study. If you are harmed due to someone's negligence, then you may have grounds for a legal action but you may have to pay for it.

### **WHAT IF SOMETHING GOES WRONG?**

During the test, if at any time you feel any discomfort or disorientation, inform one of the test staff of store employees immediately and the test will be stopped.

During the test, if you discover a real fire or if you are informed that there is a real fire emergency leave the store immediately by the nearest exit. If you discover a fire, inform staff and operate a manual fire alarm station on your way out of the building. During testing, the store paging system and radio system will be used to alert occupants and staff if a real emergency exists.

### **WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?**

Yes. All information which is collected about you during the course of the research will be kept strictly confidential. Your name and personal information will not be used in any reports and will not be given out to anyone.

### **WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?**

A draft report will be issued by October 21, 2005 for consideration by the NFPA 72 Notification Appliances Technical Committee during their meeting October 24 through 26 and for review by the Project Technical Panel. A final report will be issued to The Fire Protection Research Foundation by November 21, 2005.

It is expected that the NFPA technical committee will use the results of the study to support or change existing requirements and explanatory materials in the National Fire Alarm Code.

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**FINANCIAL SUPPORT**

Financial support is being provided by a grant to R.P. Schifiliti Associates, Inc. from The National Fire Protection Research Foundation, Quincy, MA. Additional support is being provided by the donation of time and resources by The Home Depot and by TVA Fire & Life Safety, Inc.

**CONTACT FOR FURTHER INFORMATION?**

For more information contact the Project Manager or the Executive Director of the Foundation:

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**STATEMENT OF CONSENT AND AUTHORIZATION**

- Please initial box
1. I confirm that I have read and understand this form (4 pages) and have had the opportunity to ask questions.
  2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
  3. I agree to take part in the above study.

\_\_\_\_\_  
Name of Volunteer/Participant                      Date                      Signature

\_\_\_\_\_  
Name of person taking consent                      Date

<sup>i</sup> NFPA 72, *National Fire Alarm Code*, National Fire Protection Association, Quincy, MA 2002.  
<sup>ii</sup> *The National Society for Epilepsy*, The United Kingdom, <http://www.epilepsynse.org>, September 2002.

