

PREPRODUCTION INITIATIVE – NELP FIRE EXTINGUISHER TRAINING DEVICE TEST PLAN

SITE: NAES LAKEHURST

1.0 OBJECTIVE

This test plan describes the data collection procedure for evaluating the use of a fire extinguisher training device in an active training environment. The data will be used to determine the system's efficiency, effectiveness, and overall success training Navy personnel in the use of fire extinguishers. In addition, the data will be used to determine the environmental and cost benefits of using such units versus the present training method.

2.0 DESCRIPTION

29 CFR 1910.157(g) and Navy regulation OPNAV 11320.23F Chapter 5 paragraph 5-1 require that Navy personnel be trained in the use of fire extinguishers. Current training operations involve the open burning of a gasoline/diesel fuel mixture. The resultant fuel/extinguishing media residue is considered hazardous waste. In addition, current training operations pose environmental and safety hazards. Environmental hazards include the risk of spills and harmful air emissions. Both personnel receiving and providing training are exposed to a significant risk of burn injury due to the uncontrolled nature of the fire.

The Fire Extinguisher Training Device can be ignited and turned off by remote control, and is fueled by propane gas. Because the instructor can adjust the flame height before ignition, thus remotely controlling the fire, the risk of burn injury is significantly reduced. In addition, since the fire is entirely under the instructor's control, fewer firefighters are required at training events. Since the unit is fueled by propane gas, the risk of spills and the generation of hazardous waste are eliminated. Furthermore, since propane burns more cleanly than diesel fuel and gasoline, air emissions are reduced through the use of this unit.

3.0 TEST PLAN

This test plan will be used to evaluate the effectiveness of the FirePan, manufactured by Survival Systems Industrial Limited. Quantitative and qualitative data will be collected and used to evaluate the system's ability to provide safer and more efficient training and to reduce waste disposal costs.

3.1 Approach

Two FirePan units will be used during the implementation of this test plan. Quantitative and qualitative data will be collected by completion of the Training Data Collection Sheet and the Monthly Maintenance and Repair Data Collection Sheet.

3.2 Instructions for Completing the Training Data Collection Sheet

The Training Data Collection Sheet shall be used to record the performance of the FirePans during the evaluation period. This data sheet will be filled out each time a FirePan is used to provide training for a group of people. The following describes the information that must be filled out on the data sheet.

3.2.1 General Information

- **Date:** Record the date on which training was performed.
- **Location:** Describe the location where training was performed (e.g., outside of Building 562).
- **Trainee Affiliation:** Identify the affiliation of the individuals being trained (e.g., Navy personnel or non-Navy firefighters).
- **Trainers:** Record the names of the individuals conducting the training.
- **Weather Conditions:** Record the weather conditions at the start of training (e.g., sunny, 70 °F).
- **FirePan Serial Number:** Record the serial number of the FirePan used for training.

3.2.2 Equipment Setup

- **Time Setup Began:** Record the time at which equipment setup for training commenced. (Note: Do not include travel time between the fire station and the training location.)
- **Volume of Water Used:** Record the volume of water added to the FirePan.
- **Pressure of Propane Tank:** Record the propane pressure in the tank before the start of training operations.
- **Time Setup Completed:** Record the time at which equipment setup for training was completed.

3.2.3 Fire Extinguisher Training Operations

- **Time Training Began:** Record the time at which training operations commenced.
- **Number of People Trained:** Record the number of people trained during this training event.
- **Time Training Completed:** Record the time at which training operations were completed.

3.2.4 Equipment Cleanup

- **Time Cleanup Began:** Record the time at which cleanup began.
- **Volume of Waste Generated:** Record the volume of waste generated by training operations.
- **Pressure of Propane Tank:** Record the propane pressure in the tank after training activities have been completed.
- **Time Cleanup Completed:** Record the time at which cleanup after training operations was completed.

3.2.5 Additional Comments

- Provide any relevant comments regarding the performance of the FirePan, particularly with regard to the unit's ease of use and overall performance. If there are recommendations for improvement, please indicate.

3.3 Instructions for Completing the Monthly Maintenance and Repair Data Collection Sheet

The Monthly Maintenance and Repair Data Collection Sheet should be completed once per month during the evaluation period. Information regarding both FirePan units may be recorded on the same sheet.

The manufacturer recommends that periodic maintenance be performed on each FirePan after it has been used for 10 training days. The operations manual for the FirePan includes a Periodic Maintenance Checklist (see page 20 of the manual) that details the procedures to be performed. On the Monthly Maintenance and Repair Data Collection Sheet, please indicate whether periodic maintenance was performed during the month. If it was not performed on either unit during the month, questions 2 through 4 can be skipped. If it was performed on either unit during the month, please provide the unit's serial number and respond to questions 2 through 4.

In response to question 5, please indicate whether either FirePan required repairs during the month. If neither unit required repairs, questions 6 through 9 can be skipped. If either

unit required repairs, please provide the unit's serial number and respond to questions 6 through 9. NOTE: If a FirePan requires repairs, the repairs should be arranged through Geneen Clark or Larry Lemig.

4.0 REPORTING

Fire Chief Richard Strasser has approved the use of these data collection sheets for this project. As previously described, the Training Data Collection Sheet will be completed for each training event, and the Monthly Maintenance and Repair Data Collection Sheet will be completed once per month. Data will be collected for one year. During the evaluation period, the data sheets will be faxed to Ken Wright (see Section 4.1, Points of Contact, for the fax number) monthly, at a minimum. The final report will include information on the FirePan's safety, overall performance, cost-effectiveness, and ability to interface with site operations.

4.1 Points of Contact

If any questions arise or repairs are necessary during the evaluation period, contact either of the following individuals:

POC	Affiliation	Phone No.	Fax No.
Geneen Clark	UTRS, Cherry Hill, NJ	(856) 667-6770	(856) 667-7586
Larry Lemig	Public Works Engineering, Lakehurst, NJ	(732) 323-7500	(732) 323-2792

Please note that due to contract requirements, the FirePan vendor should *not* be contacted directly unless there is an emergency. All communication with the vendor should be directed through UTRS.

TRAINING DATA COLLECTION SHEET

General Information	
Date	
Location	
Trainee Affiliation	
Trainers	
Weather Conditions	
FirePan Serial No.	

Equipment Setup	
Time Setup Began	
Volume of Water Used	
Pressure of Propane Tank	
Time Setup Completed	

Fire Extinguisher Training Operations	
Time Training Began	
Number of People Trained	
Number of CO2 Containers Used	
Time Training Completed	

Equipment Cleanup	
Time Cleanup Began	
Volume of Waste Generated	
Pressure of Propane Tank	
Time Cleanup Completed	

Additional Comments:

Provide any relevant comments regarding the unit's performance during fire extinguisher training. Include comments regarding the unit's ease of use and overall performance.

MONTHLY MAINTENANCE AND REPAIR DATA COLLECTION SHEET

Month: _____

Periodic Maintenance

1. Was periodic maintenance performed this month? Yes No
If yes, provide the serial number(s) of the unit(s) serviced:

If no, skip questions 2 through 4.
2. Number of maintenance actions this month: _____
3. Total time spent performing maintenance this month: _____
4. Describe any deficiencies noted during maintenance: _____

Repairs

5. Were any repairs to the FirePan required this month? Yes No
If yes, provide the serial number(s) of the unit(s) serviced:

If no, skip questions 6 through 9.
6. Describe the nature of problem: _____

7. Identify the parts required to complete the repair: _____

8. Time required to perform the repair: _____
9. Total time the FirePan was out of service to complete this repair: _____