A QUARTERLY PUBLICATION



T I P S

FALL 2003

When is ENOUGH-ENOUGH? WHEN THE FIRE GOES OUT!

Often lessons must be learned over and over again. Though these pictures may be separated by 38 years, the street location is the same, and some of the firefighters even have the same last names. In 1965, the P.W. Way-Opera House fire left a vacant block, which nearly four decades later, is home to a bank and a parking lot. In 2003, the Dye Plumbing and Heating fire created a vacant lot, which is still looking for a new resident. In these fires, inadequate initial attack fire flows played a large role in the nearly total destruction of both businesses.

As some of the more progressive fire ground commanders search for tools to help them determine adequate fire flows in commercial structures, they are faced with numerous and often conflicting or confusing fire flow formulas. Do you follow the original Iowa Fire Flow formula based on the work of Royer and Nelson in compartment fires or do you look to the ISO formula that takes into account construction, building use, occupancy, and exposures? Then there are formulas for fire protection engineers, finally, the more commonly accepted National Fire Academy formula that has gained wide acceptance as the most practical and experience based. Taking into account today's construction and the incredible amount of BTU generating plastics in every building, the NFA *Length times Width divided by 3* formula for determining initial attack fire flows is a great building block.

IN THIS ISSUE

- Critical Infrastructure
- Trade Show Calendar
- MASS Decon
- BubbleCup
- Road Test Blitzfire
- Car Fires
- Mr. Fix-It

Mother Nature has some very basic rules when it comes to fire flows. If more BTUs are being generated than the gallons-per-second you are directing into the fire space can absorb, generally the fire will not go out until it runs out of fuel. She also doesn't really care if the flow is coming from a low-pressure combination nozzle, smooth bore tip, or a leather bucket; this was proven on Madison Street in



1965 and proven again in 2003. Since fire suppression has always been mostly about flow rate, Task Force Tips, Inc. and our regional managers are all advocates of high-flow initial attack operations. From high-flowing handlines, the 500 gpm Blitzfire personal portable monitor, to the 1250 gpm Crossfire portable monitor, our "Fire Streams to the MAX" training programs can help you maximize your fire flow operations.

For additional information on fire flow formulas and methods you can use to "not repeat history," contact your local TFT representative and request our NFA-based fire flow calculator, or visit www.tft.com.

2800 EAST EVANS AVENUE VALPARAISO, INDIANA 46383-6940 (219) 462-6161 (800) 348-2686 US & CANADA

WELCOME

Let here are a couple of myths that I feel compelled to address in this issue of the Task Force TIPS newsletter.

First, our regional managers continue to hear from some customers that they "were told by a competitive salesman" TFT automatic nozzles go out of calibration or have to be sent back



to the factory for re-calibration on a regular basis. This quite simply is not true and often is nothing more than a hungry salesman making an attempt to discredit our products. The time-tested and battle-proven pressure control mechanisms incorporated in all TFT automatic nozzles are pre-engineered, pre-assembled and require no field adjustment or re-calibration. That doesn't mean though, that over time and extended rough usage, without proper care and maintenance, the nozzle's performance may not be diminished. Regular inspection, flow testing, and routine maintenance are important for any mechanical device, especially one that is so critical to personal protection. But, re-calibration or having to send them back in, this just isn't true. These same competitors should focus on trying to explain why they continue to use plastic for the spinning teeth in their nozzles. With so many of their nozzles having bent, broken, or missing teeth, and with the protective fog pattern being such an integral part of a firefighter's protection and safety, you would think they would follow our lead and use a material like our stainless steel spinning teeth that hold up to rugged fire ground usage.

Secondly, we also get customers calling us and asking why the nozzles "have to be lubricated after every use." They DO NOT have to be lubricated after every use. What we do recommend is clearly outlined in every TFT maintenance bulletin, service poster, and web site article. All nozzles, including our competitors, need to be part of a regular program of routine inspection, cleaning, and if necessary, following the manufacturer's recommendations lubrication. Age, damage, rugged usage, storage on the apparatus, as well as the use of Class A foam agents can all have a long-term effect on overall nozzle flow and pressure performance. For additional information of nozzle lubrication procedures, flow testing of your nozzles in the field, or how to establish a routine preventive maintenance program in your department, just give us a call or stop by the service area of www.tft.com. Above all, beware of the unscrupulous salesman that indicates his nozzles do not require routine maintenance and lubrication; he may be more interested in a quick sale, than your long-term well-being.

Regards,

we grill

Stewart McMillan President



Annual New Jersey Firefighter's Convention September 12-13

Wildwood, NJ

Visit with TFT's Eastern regional manager, Chris Carson, and review the complete line of new Large Diameter Hose hardware. High Flowing, Corrosion Resistant, and Easy to Operate, this new series from TFT is truly leading the industry.

Fire Tech Reno

September 23-24 Reno. NV

Dave Burns, TFT's Western Regional Manager, will be in attendance with members of the L.N. Curtis and Sons sales organization to show the complete line of nozzles designed specifically for Los Angeles County Fire Department, Seattle Fire Department, and others who count on high-performance suppression equipment.

CITA/Kirkwood Fire School

September 27-28 Cedar Rapids, IA

Ken Kendrick, TFT's North Central Regional Manager, will be in attendance with information on the broadest line of foam injection and application equipment in the industry. From PROpak to foam attachments, TFT has it all. Ask for a copy of our Foam Flows to the MAX training program.

FEMSA/FAMA Joint Annual Meeting

October 8-12 San Francisco, CA

Rod Carringer and Doug Miller will be in attendance at the annual Fire and Emergency Manufacturing and Services Association/Fire Apparatus Manufacturer's Association meeting.

Minnesota State Fire Chief's Association Conference

October 16-17 Duluth, MN

Stop by and visit with Ken Kendrick and take a look at the completely redesigned TFT Handline nozzle. The best nozzle in the industry just got better.

Circle Center Fire School

October 18-19 Indianapolis, IN

Doug Miller, TFT's OEM Manager, and Ron Prast, TFT's Midwestern Regional Manager, will be premier guest instructors for this year's fire school. "Fire Streams to the MAX" and "Foam Applications to the MAX" will be presented in a two-day venue.

Critical Infrastructure Preparedness BP Toledo Refinery

I N D U



Question:

What covers over 800 acres, produces millions of gallons of fuels weekly, has its own firefighter training facility, extensive security systems, and is considered a critical infrastructure during domestic preparedness planning?

Answer:

BP's Toledo Refinery in Oregon, Ohio

With over 70 active volunteers, 3 full-time safety advisors, and 2 full-time safety specialists, BP's Emergency Response Specialist Chris Herman, deals with every aspect of the facility's fire protection systems, emergency medical response, high angle and confined space rescue, disaster and safety planning, training, as well as equipment specification and acquisition.

BP's Emergency Response Team consists of three engines: a heavy rescue, hazmat vehicle; command vehicle; and three quick-response apparatus designed to provide maximum fire flows within moments of arrival at an incident.

Supporting over 200 fixed-station monitors and 50 foam station monitors working from the internal fire water system, the team also can provide over 10,000 gallons of AFFF-AR foam concentrate for immediate response inside or outside of the facility. The Emergency Response Team is also an integral part of the regional mutual aid group, which includes not only BP; its pipeline subsidiary, Sun Oil Co; and Marathon Ashland, but the local Oregon and Toledo, Ohio fire departments as well.

You would think that, with these incredible resources in fixed systems and mobile apparatus at his team's disposal, Chris would be satisfied with their level of response planning within the Toledo plant. But, no longer is fire and safety their only concern. The threats of domestic terrorism and the extensive training and planning required to combat them have greatly expanded the team's responsibilities, as well as their role in the overall protection of the facility. These are just some of the additional programs that have been implemented recently as part of an overall risk management program undertaken by BP:

- Improved Hardening of the Facility's Entire Perimeter with Truck-sized Boulders
- High-tech Entry and Exit Points
- Expanded Security Surveillance Capabilities
- Regular Review and Response Drills Based on Typical Terrorist Scenarios
- More visible security clearance identifications for guests, contractors, and employees allow for better internal management

Though rapid deployment of fire flows and having sufficient lightweight high-performance suppression equipment remain key components of an overall suppression strategy, emergency managers are now being called upon as a key resource in the planning of response to an act of domestic terrorism. Though the playing field has changed somewhat, ultimately it is BP's Chris Herman and other emergency managers like him who will have the vision and management skills to provide the highest level of protection for this nation's critical refining and distribution infrastructure.

For additional information on how Task Force Tips, Inc. products can be part of your overall response plan, please contact us at 800-348-2686 or visit our web site at www.tft.com.



"Engine Four, Engine Six, Truck Two, Squad Two, and Chief Three-Respond to the High School for a reported chemical release."

"Dispatch.....Chief Three is On Scene with multiple patients and possible mass contamination. I need a Priority ONE HazMat and Medical Assignment."

Rapid Field Decon Using the Oscillating Blitzfire

he decisions and actions of first-arriving companies can be crucial to the overall severity of a Chem/Bio incident, especially when large numbers of people are involved and immediate medical assistance may be necessary. Unless prudent and well-thought-out steps are taken within moments of arrival, contamination can spread to local hospitals, area neighborhoods, and throughout the first responder teams.

As a HOT zone is established, all efforts should be directed toward immediate containment of all individuals who have been contaminated. Secondly, total control of the scene must take place to prevent the spread of unknown agents. These are two very tough assignments for first arriving companies, that may also be immediately overwhelmed as soon as they get on scene. One task that can be undertaken almost immediately is to establish a process for rapid mass decontamination of ambulatory patients. The EPA's Metropolitan Medical Strike Team's Patient Decontamination Procedure calls out the following guideline for first arriving responders.

"Every patient believed to have been exposed to an agent with a risk of secondary contamination is to receive at minimum - gross decontamination."

GROSS CONTAMINATION MEANS (rinse and strip and rinse)

DECONTAMINATION RULES OF THUMB

- Begin Decontamination Procedures as Quickly as Possible
- Disrobing IS Decontamination Top to Bottom, MORE is BETTER
- Flushing with Water is Generally the Best MASS Decon Procedure
- Expect a 5:1 ratio of Unaffected Victims Versus Affected Victims
- If You, as a First Responder, have known Exposure over Five Minutes, Initiate SELF-Decon Procedures Immediately



A recent mass decontamination training drill identified a simple, yet flexible, system that integrated TFT's Blitzfire OSC oscillating monitors into a rapid deployment mass decon kit. The following criteria were established for the project:

- The "Kit" Must Allow for Mobility, as they Will be Pre-positioned at Venues of Large Public Assembly. (Casinos, Convention Center, Mall, Schools, Baseball Park)
- Their Mobility Would Also Allow Them to be Easily Moved if Needed Elsewhere.

As it is designed to work directly from a hydrant, the "kit" must be self-contained and have the necessary water delivery equipment to provide maximum flows at relatively low hydrant pressures until an engine company can support the system.

The "kit" must be able to be placed in service quickly and supported by limited staff until additional first responders arrive.

The oscillating Blitzfire is the ideal tool to provide decontamination coverage to a large group of victims with minimal staffing...quickly. As victims walk through the Emergency Decontamination Corridor, the oscillating streams from the MAX-Flow nozzles give complete coverage from *head to foot*, though little impact from the low-pressure stream is felt by the victim. With its 40-degree sweeping pattern, four Blitzfire OSC units can easily and quickly decontaminate large groups of people, greatly simplifying the first responder's responsibilities.

For additional information on how the Blitzfire OSC and the unique MAX-Flow nozzle can be part of your domestic preparedness planning, contact Task Force Tips, Inc. customer service and request the Blitzfire training video and literature.

For additional information on decontamination procedures and recommended equipment, contact the EPA and ask for the Metropolitan Strike Team's Patient Decontamination Procedures, and EPA's bulletin on First Responders' Environmental Liability Due to Mass Decontamination Runoff.



Identity Crisis Does it Flow Water or Make Foam?

Question:

What has two gallonage selections, is the only combination foam/water application nozzle made, and combines straight stream, fog patterns, and foam aspiration all in a single unit?

Answer: The Task Force Tips, Inc. Bubble Cup



With more than 7500 units delivered worldwide over the past few years, the patented Bubble Cup is universally accepted as the most versatile foam/combination nozzle ever created. Its design is simple, incredibly rugged, and has found favor with both wildland agencies that use it for direct initial attack using water and Class A foam agents and with municipalities that have matched the Bubble Cup up with their 60 gpm and 95 gpm portable foam eductors for use on flammable liquid incidents.

Developed jointly with the equipment specialists of the California Department of Forestry and Fire Protection, the Bubble Cup solved the problem of carrying a combination nozzle, a separate foam nozzle, and a foam attachment. The design integrated (in a dual-gallonage platform), a nozzle that could reduce flow, still providing outstanding stream reach and penetration, a wide fog pattern for protection, and the ability to aspirate foam when a rich thick blanket was needed.

Bubble Cup nozzles are produced in tip-only (for break and extend operations with a separate ball shut-off), integrated ball shut-off, and integrated ball shut-off with pistol grip configurations. All Bubble Cups with an integrated ball shut-off use TFT's exclusive stainless steel ball, quickchange rear valve seat, and polymer bale shut-off handle. Each series, 1" and 1½", also offer several flow choices.

1" Twisters

10 & 24 gpm or 10 & 40 gpm are ideally suited to wildland firefighting operations from brush trucks, portable pumps, or water tenders. They will provide a penetrating straight stream, a wide pattern for coverage, and foam aspiration that produces a wet soaking foam blanket. It is also an ideal tool for structural pretreatment.

1^{1/2}" Twisters

20 & 60 gpm, 20 & 95 gpm, or 95 gpm models are designed to provide a wide protective fog pattern for crew protection, a far-reaching straight stream, and a low-expansion foam blanket that is ideal for either AFFF on a flammable liquid spill or for structural Class A foam applications.



The Bubble Cup is also designed to provide a level of safety not offered in any other foam application nozzle. If, while applying foam, conditions require a wide protective pattern for firefighter safety, simply retracting the foam aspiration sleeve will provide a wide fog. One hand motion from Foam to Fog–**Performance AND Safety**.

For additional information on the unique Bubble Cup multi-function nozzle, visit www.tft.com or contact you local Task Force Tips, Inc. distributor for a demonstration today.

ROAD TEST INITIAL ATTACK THE TFT BLITZFIRETM VS. THE AKRON MERCURYTM

TFT Blitzfire™	Akron Mercury™
Automatic Integrated Safety Shutoff Valve Standard	No Safety Shutoff
Six Detent Flow Positions with Turbulence Free Slide Valve	1/4 Turn Tork-Lok™ Ball Shutoff
Tie-Down Strap Provided	Tie-Down Strap Required for Use
Stream elevation from 10 degrees up to 50 degrees, 20 degrees side to side	Stream elevation from 30 degrees (20 degrees with operator) up to 60 degrees, 20 degrees side to side
Available with either Standard, Low-Pressure, or Dual-Pressure Automatic Nozzle, Fixed Gallonage Nozzle or Stacked Tips	Available with Selectable, Fixed Gallonage Nozzle, or Stacked Tips
Maximum Operational Pressure 175 psi	Maximum Operational Pressure 150 psi
Deployed width 34"	Deployed Width 23.5"
Oscillating Feature Offered YES	Oscillating Feature Offered NO



he incredible success and market acceptance of TFT's Blitzfire lightweight portable attack monitor

has forced several other manufacturers around the world to try to copy the concept. In this month's Road Test, we put the recently released Akron Mercury™ monitor up against the Blitzfire. All aspects of performance and safety were reviewed and summarized in this brief report.

TEST SUMMARY:

Package Design Parameters

Though the Mercury[™] weighs less and provides a smaller overall "stowed" dimension, in field trials the 23.5" deployed width offered far less stability at 500 gpm flows than the Blitzfire with its 34" deployed width. The Blitzfire's wider overall stance, carbide-tipped legs, rear pivoting inlet, and additional weight provided superior stability under various fireground operations. With reaction forces reaching nearly 250 pounds, the Mercury™ MUST BE TIED DOWN with the attached strap.

Valve Design and Functionality

The Mercury[™] provides a 1/4 turn Tork-Loc™ ball shutoff. When the valve is gated to reduce flow, turbulence generated in the combination nozzle and stacked tips severely degraded the quality, reach, and penetration of the stream of both the combination nozzle as well as the smooth bore tip. This requires the valve on the Mercury™ to be used only in the fully open or fully closed position. The patented slide valve on the Blitzfire has six detent flow positions and when gated, the slide valve creates little turbulence or stream degradation, providing nozzleman flow control with any nozzle choice. From a safety standpoint, the Blitzfire also comes standard with an automatic safety shut-off mechanism that prevents unwanted or unintentional movement under a flow condition, reducing risk of firefighter injury. The Mercury™ offers no safetv mechanism and MUST BE TIED DOWN with the attached strap to be used.

Stream Operational Performance

In unmanned operations, the Blitzfire's stream can be elevated from 10 degrees up to 50 degrees, and the Mercury™ from 30 degrees up to 60 degrees. The inability of the Mercury[™] to bring the stream down below the 30-degree elevation angle (20 degrees with an operator holding it down) severely limits its use as a direct attack appliance. The low, 10-degree angle of the Blitzfire allows the unit to place a stream directly into a structure's interior upon arrival of the first due apparatus. Both units have similar side-to-side performance at 20 degrees from center.

Project Summary

Though the service and warranty offerings were similar, there were three areas of performance that set the Blitzfire apart during field trials.

Safety

The Blitzfire's unique shut-off mechanism and wide deployed stance offer a level of safety and stability not found in any other portable monitor large or small on the market today. Stream Performance TFT's exclusive turbulence - free slide valve, combined with the performance of the dual - pressure automatic nozzle provides the operator with total nozzleman flow control.

Stream Elevation

The low 10-degree stream elevation angle allows the Blitzfire the flexibility to direct a stream "in the front door" or to cover a flammable liquid fuel fire if necessary. This low unmanned attack angle is a critical feature.

The overall performance and value winner is clearly the TFT Bltizfire.

To schedule your own fire streams management program, head-to-head monitor comparison, or for additional information on the Task Force Tips, Inc. line of high performance equipment contact any regional manager or customer service at 800-348-2686.

For more information on Fire Streams to the MAX, ask for our new PowerPoint training program.

Mercury and Tork-Loc are registered trademarks of Akron Brass

Akron Brass Company is a Premier Farnell Company

BUT, IT'S JUST A CAR FIRE!!!



TFT's Power Cone fog pattern is important in firefighter safety

Deck Guns or bumper turrets can be an ideal choice for direct attack of a vehicle fire.

ust when you thought it couldn't get any crazier with air bags deploying unexpectedly, gas filled shocks, struts, and belt pre-tensioners exploding without warning, and hundreds of pounds of smoky, cancer-causing plastics, now we have to worry about alternate fuels like hydrogen or a trunk full of batteries when we respond to a "typical" car fire.

U.S. Fire Administration research indicates that nearly 1 out of every 4 fires we respond to is a vehicle fire, and 1 out of every 8 fire deaths results from a motor vehicle fire. To bring that into perspective, there are approximately 550 fatalities directly attributed to vehicle fires, as well as 2100 civilian and 1200 firefighter injuries reported each year. The days of responding to "just another car fire" are definitely a thing of the past.

An NFPA recommendation for minimum initial attack fire flows on vehicle fires is 125 gpm. Remember that this is strictly a minimum and can be easily provided through an $1\frac{1}{2}$ " or $1\frac{3}{4}$ " pre-connect. Not that it is totally uncommon to watch an engine company open a pre-plumbed deck gun on a vehicle fire, or to find one that still will pull a 1" booster line, but traditionally, the first structural pre-connect is also the line of choice for vehicle fires. If you are part of the first due crew, consider the following "points" before you pull that first line off the apparatus.

Take a moment and determine the make, model, and construction of the involved vehicle. This will help you identify fuels used, if passive or active passenger restraints are installed, whether shock-absorbing bumpers of gas-loaded struts are present, or if magnesium or other metals may be involved. Determine if involvement is in the engine compartment, passenger area, trunk, or maybe all three. Are fuels leaking out that need special attention? Will the water supply be adequate for total extinguishment?

Exposures such as near-by vehicles or structures, overhead wires, or the proximity of other first responders or spectators may require pulling a second line for additional protection.

Keep safety in mind at all times. Even though placement of the apparatus should position the attack crew up wind and up hill from the fire, SCBA and full protective clothing are mandatory. Avoiding a direct attack at either the front or the rear of the vehicle will also lessen the chance of injury from an exploding bumper system. Even though a protective fog pattern is mandatory for fire-fighter safety, it cannot stop a vehicle bumper assembly traveling at over 40 MPH. Even with your 125 gpm minimum fire flow, consider the use of Class A foam as a water enhancement that will allow your stream to more thoroughly soak into smoldering insulation or foam seats and smother burning rubber tires more quickly and effectively than water alone.

With more and more hybrid cars on the road and municipalities and corporate fleets opting for LNG, CNG, or electric as a clean source of fuel and with new enhanced safety devices showing up each new model year, the challenges of dealing with "just another car fire" are greater than they ever have been.

For additional information on TFT's broad line of high performance vehicle firefighting equipment visit www.tft.com. For additional information on vehicle firefighting training resources, contact the NFPA, the IFSTA Essentials Manual, or the Maryland Fire and Rescue Institute.



I spotted one of your handline prototype nozzles during field trials at our fire department. What can you tell me about it?

Some things we can talk about and some we can't. The nozzle will remain under "wraps" during its 2003 field evaluations. Departments putting these nozzles through their paces are under a "secrecy" agreement. Though the internal working structure and design remain a secret, you may have noticed that the new handle is made from a time-tested polymer and allows for color-coding of the shutoff handle and pistol grip. That's all we can talk about right now. The rest is top-secret.

In reading the literature on your Ball Intake Valve (BIV), we noted that friction loss through the valve at 2000 gpm flow was 11psi. Is this also true under suction? Though we remove all intake valves when we do our pump tests, what is a reasonable flow to expect through the BIV at draft?

The answer to this is YES, the friction loss is the same. The problem is that because you are at suction a LITTLE friction loss has a lot more effect. Typically, in our field tests, we find 900-1000 gallons per minute at draft is a reasonable expectation if you consider the following factors:

- Length of suction hose and elevation will affect draft.
- Efficiency of the pump (age, maintenance, etc.)
- The size of suction hose, as well as the flow capabilities of the strainer will affect flow, beware of low-levels strainers – they can severely restrict flow
- If you draft through a dry hydrant, hose length, size, connections, and the strainer will all affect possible flow

Taking all of these factors into account, the BIV excels as one of the most flow-efficient and compact units on the market today.

For additional information on drafting operations, contact TFT customer service and request our Fire Flows to the MAX training program.

Register for Your Copy of the Task Force Tips Newsletter On-line at www.tft.com



2800 EAST EVANS AVENUE VALPARAISO, INDIANA 46383-6940 Prst Std US Postage **PAID** Hammond, IN Permit # 129