OFFICE OF THE STATE FIRE MARSHAL
STATEWIDE TRAINING AND EDUCATION ADVISORY COMMITTEE
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
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Date: February 5, 2013

To: Ronny J. Coleman, Chairman
c/o State Fire Training
1131 S. Street,
Sacramento, California 95811

From: Ken Wagner, Fire Service Training Specialist

Subject/Agenda Action Item: Evaluating the IAFF Fire Ground Survival Program for Equivalency with the State Fire Training Fire Fighter Survival FSTEP Course

Recommended Actions: Staff recommends that STEAC approve the State Fire Training recommendations and implementation items contained in the Summary and Analysis section of this staff report.

Background Information:

STEAC Meeting, October 19, 2012

STEAC deliberated on the subject of evaluating the IAFF Fire Ground Survival Program for equivalency with the State Fire Training Fire Fighter Survival FSTEP course. The following table depicts the three differences within the IAFF curriculum that were identified by the SFT Curriculum Cadre.

Item	Cadre Comment
Rapid (Head First) Ladder Escape	A directed decision was made that this technique would not be taught in California curriculum due to demonstrated safety concerns.
Emergency Hose Slide	The technique taught in the IAFF curriculum significantly differs from SFT curriculum in that hand placement is different at the point of exit and the IAFF teaches a head first exit where SFT does not.
SCBA Emergencies	The SFT curriculum contains instruction on this topic that is more in-depth than what is presented in the IAFF curriculum.

During this STEAC meeting, Derek Alkonis, representing the IAFF agreed to take these three differences back to their development cadre during fall 2012 and discuss their interest in modifying their curriculum to more closely align with SFT curriculum. If these modifications were to be made, the SFT cadre expressed confidence that the IAFF Fire Ground Survival course will be equivalent to the SFT Fire Fighter Survival FSTEP

curriculum. As a result, participants presenting a certificate of completion for the IAFF Fire Ground Survival course could be granted equivalency for the Fire Fighter Survival FSTEP curriculum and could use the course to meet prerequisite requirements for the FSTEP RIC Operations course.

STEAC endorsed this approach with a motion directing that if the IAFF were to make the aforementioned changes to their curriculum, SFT should move forward with establishing the IAFF Fire Ground Survival course as an equivalent to the Fire Fighter Survival FSTEP course. This would allow participants presenting a certificate of completion for the IAFF Fire Ground Survival course to be granted equivalency for the Fire Fighter Survival FSTEP curriculum with the sole purpose of using the course to meet prerequisite requirements for the FSTEP RIC Operations course.

IAFF Response

On December 18, 2012 SFT received a communication from Jim Brinkley, Director of Occupational Health and Safety, IAFF. This communication (copy attached) provided the IAFF response to the results of the October 19, 2012 STEAC meeting. A summary of the IAFF response is contained in the following table.

Item	**IAFF Response**
Rapid (Head First) Ladder Escape	The IAFF FGS instructors will only train California fire fighters in the "Hook2, Grab 4" technique and not the "Rapid (Head First) Ladder Escape.
Emergency Hose Slide	The IAFF FGS Hose Slide technique does not require a head first exit. The IAFF FGS technique requires the fire fighter to exit the structure using the "Window Hang" technique first, and then to transition to the hose for descent to ground level. Having the fire fighter's head out of the window protects the fire fighter's head and the SCBA face piece from the potential high heat (polycarbonate fails at 400 deg F) coming from inside the room. Teaching a fire fighter to return his/her head into a superheated room like the SFT skill prescribes is contradictory to what the skill is designed to do. The IAFF FGS skill will not be changed.
SCBA Emergencies	The IAFF FGS instructors will share the same SCBA Emergencies content found within the SFT curriculum when teaching in California.

STEAC Meeting, January 18, 2012

STEAC deliberated on this subject once again, with the understanding that SFT was conducting a meeting with the SFT Cadre on January 21, 2013 to ask them to analyze the IAFF response, particularly as it relates to the Emergency Hose Slide issue. Staff reported that after this analysis was complete a course of action could be established. Considering the aforementioned facts and information, STEAC approved a motion to bring this item back for deliberation and a vote via e-mail or conference call prior to the next meeting scheduled for April 19, 2013.

Results of Meeting with SFT Cadre, January 21, 2013
Staff met with SFT Cadre members Jim Hudson, Jim Mathias and Jon Woody to discuss the IAFF response to the three curriculum differences that were previously identified. The Cadre appreciated the opportunity to continue the dialogue on this important subject and each response in the IAFF response was discussed in detail.

Staff and the Cadre revisited the focus of this discussion and the intent of equivalency for the IAFF course. Specifically, the FSTEP Fire Fighter Survival course is currently the only listed academic prerequisite required for attendance in the FSTEP RIC Operations course. If equivalency is granted for the IAFF Fire Ground Survival course, it could also be used to meet the prerequisite. Keep in mind that when a course is an academic prerequisite it contains knowledge and/or skills that a student must have to be successful in the next successive course. With that said, each of the three items of concern identified by the SFT Cadre during their review of the IAFF curriculum are items a student must prove competency in before the student can be successful in the RIC Operations course.

Analysis/Summary of Issue:

After reviewing the IAFF response dated December 18, 2012 and leading a discussion with the SFT Cadre, State Fire Training recommends the following:

Rapid (Head First) Ladder Escape
SFT is supportive of the decision by the IAFF to include the "Hook 2, Grab 4" technique and not the Rapid (Head First) Ladder Escape when teaching in California. Unfortunately, there is no nationally published criterion for the "Hook 2, Grab 4" technique. The SFT Cadre developed the technique included in the FSTEP curriculum after significant research and testing. It is in the interests of both SFT and the IAFF that students in either program be proficient in the "Hook 2, Grab 4" technique so that they are prepared to successfully participate in the FSTEP RIC Operations course. SFT understands that the IAFF places significant emphasis on developing lesson plans and requests that the IAFF provide copies of their new lesson plan and supporting materials on their implementation of the "Hook 2, Grab 4" technique so that SFT can share the materials with the FSTEP RIC Operations Instructors. In order to enhance the level of compatibility between curricula the SFT Cadre is willing to assist with lesson development.

Emergency Hose Slide
As stated previously, granting the IAFF course equivalency for the FSTEP course will allow students who completed the IAFF course to meet the "fire fighter survival" prerequisite to attend the FSTEP RIC Operations course. It is in the interests of both SFT and the IAFF that students in either program be proficient in an emergency hose slide skill. Furthermore, it is equally important for students to demonstrate proficiency in the FSTEP Emergency Hose Slide technique so that they are prepared to successfully participate in the FSTEP RIC Operations course. For reference, copies of the instructional materials for both the IAFF Emergency Hose Slide and FSTEP Emergency Hose Slide are attached to this report. The emergency hose slide as taught in the FSTEP course is a skill that is utilized and built upon in the FSTEP RIC Operations course. SFT respects the IAFF position on this technique and suggests that our joint interests could be met by the IAFF including the FSTEP Fire Fighter Survival, Fire Fighter Survival Skill #5: Hose Slide as an additional skill when they teach their course in California. This would preclude the need for FSTEP RIC Operations Instructors to remediate students who have completed the IAFF course, thus eliminating a burden on students, instructors and the course flow. SFT understands that the IAFF places significant emphasis on developing lesson plans and, should this recommendation be accepted, requests that the IAFF provide copies of their new lesson

plan and supporting information on their implementation of the FSTEP Hose Slide technique so that SFT can share the materials with the FSTEP RIC Operations Instructors. In order to enhance the level of compatibility between curricula and better prepare students for participation in the FSTEP RIC Operations course, the SFT Cadre is willing to assist with lesson development.

SCBA Emergencies

SFT is supportive of the decision by the IAFF to include the FSTEP SCBA Emergencies information as a part of their curriculum when teaching in California. Once again, students will be prepared to fully participate in the FSTEP RIC Operations course. SFT understands that the IAFF places significant emphasis on developing lesson plans and requests that the IAFF provide copies of their new lesson plan and supporting materials on their implementation of the FSTEP Fire Fighter Survival, Topic 5: SCBA Emergencies information so that SFT can share the materials with the FSTEP RIC Operations Instructors. In order to enhance the level of compatibility between curricula the SFT Cadre is willing to assist with lesson development.

Implementation Items

In addition to the topic specific discussion and conclusions listed above, SFT has identified the following questions that must be answered before equivalency can be implemented:

1. How will the IAFF instructors be updated on each of the new or modified skills or topics that will be included in their curriculum to meet equivalency requirements?

2. After the IAFF curriculum is approved for equivalency, how will students who received IAFF certificates prior to equivalency be remediated so that they have the skills necessary to be successful in a future FSTEP RIC Operations class?

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS®

HAROLD A. SCHAITBERGER
General President

THOMAS H. MILLER
General Secretary-Treasurer

December 18, 2012

Ronny J. Coleman, Chair
Statewide Training and Education Advisory Committee
CALFIRE
Office of the State Fire Marshal
P.O. Box 944246
Sacramento, CA 94244-2460

Dear Mr. Coleman,

The IAFF Fire Ground Survival (FGS) committee met during the IAFF Instructor Development Conference last month to discuss the requirements for the California State Fire Training (SFT) to recognize the IAFF FGS course as equivalent to the California Fire Fighter Survival course.

After considerable discussion and deliberations, the IAFF FGS program developers, Master Instructors and project managers determined that the best course of action to address these concerns is listed in the table below.

Rapid (Head First) Ladder Escape

SFT Cadre Concern - A directed decision was made that this technique would not be taught in the California curriculum due to demonstrated safety concerns.

IAFF Response - The IAFF FGS instructors will only train California fire fighters in the "Hook 2, Grab 4" technique, and not the "Rapid (Head First) Ladder Escape."

Emergency Hose Slide

SFT Cadre Concern - The technique taught in the IAFF curriculum significantly differs from SFT curriculum in that hand placement is different at the point of exit and the IAFF teaches a head first exit where SFT does not.

IAFF Response - The IAFF FGS Hose Slide technique does not require a head first exit. The IAFF FGS technique requires the fire fighter to exit the structure using the "Window Hang" technique first, and then to transition to the hose for descent to ground level. Having the fire fighter's head out of the window protects the fire fighter's head and the SCBA face piece from the potential high heat (polycarbonate fails at 400 deg F) coming from inside the room. Teaching a fire fighter to return his/her head into a superheated room like the SFT skill prescribes is contradictory to what the skill is designed to do. The IAFF FGS skill will not be changed.

SCBA Emergencies

SFT Cadre Concern - The SFT curriculum contains instruction on this topic that is more in-depth than what is presented in the IAFF curriculum.

IAFF Response - The IAFF FGS instructors will share the same SCBA Emergencies content found within the SFT curriculum when teaching in California.

The IAFF is committed to making changes to the FGS program to improve survivability. A complete review of the content is completed annually by subject matter experts to ensure the program reflects the most contemporary information related to fire ground survival. The IAFF responses provided above represent the actions our instructors will take in providing FGS instruction in California to allow for a State Fire Training, Fire Fighter Survival certificate to be granted to California fire fighters.

Sincerely,

Jim Brinkley
Director of Occupational Health and Safety

cc: Lou Paulson, California Professional Firefighters

NEAR MISS 182 RALEIGH AVE TORONTO, ONTARIO LOCAL 3888

On March 29, 2007, I was the Captain assigned to Pumper 223. We responded as part of a normal assignment to a house fire at 181 Raleigh Ave. in Toronto's east end. Upon arrival we found heavy smoke coming from a multi-story structure and the crew from the first arriving truck advancing hand lines into the occupancy.

Shortly after arriving we advised the IC that we would perform a primary search of the second floor. For access we positioned a ladder at a window. As a crew of three, Captain, Acting Captain, and Fire Fighter, we climbed the ladder and made entry through a bedroom window with a hose line. The room was difficult to search due to clutter and the extreme smoke conditions. Visibility was near zero, but the heat was bearable.

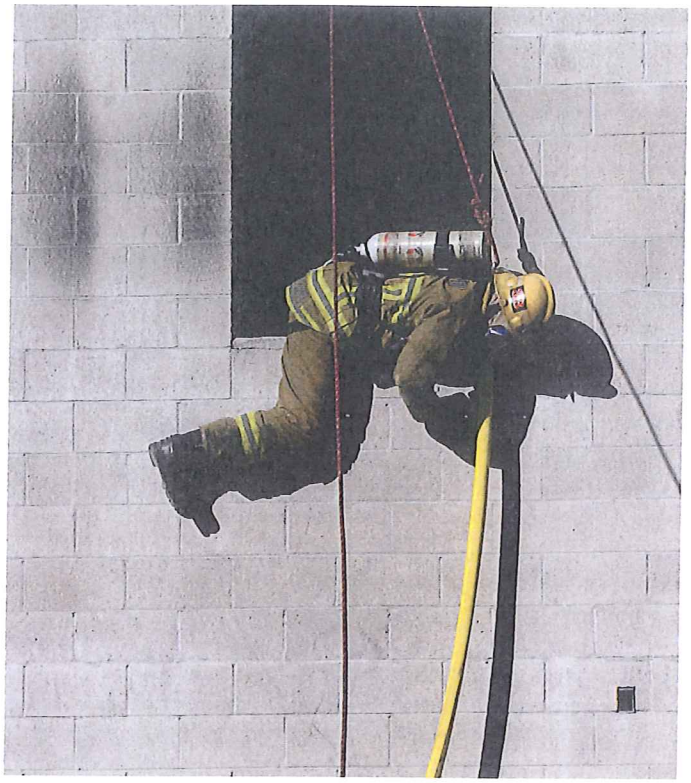
A short time into our search the heat rose dramatically and fire began to roll over the ceiling of the room. The fire fighter attempted to knock down the fire but was unsuccessful. As the heat continued to bank down on us we proceeded back to the window so we could get out. The Acting Captain was the first to make his way to the window. As he climbed out the window his SCBA got hung up. Thinking quickly, he removed his SCBA and climbed down the ladder. In the period of time the Acting Captain was exiting the window, the temperature in the room had become unbearable. Realizing our situation was getting more urgent I initiated the Mayday sequence by pushing the emergency alert button on my radio. Just after pushing the button the Acting Captain had cleared the window making it accessible to myself and the fire fighter. We both exited through the window and down the ladder head first using our arms to control our descent. Because of the extreme heat, the only way for both of us to get out quickly and safely was to self-rescue down the ladder.

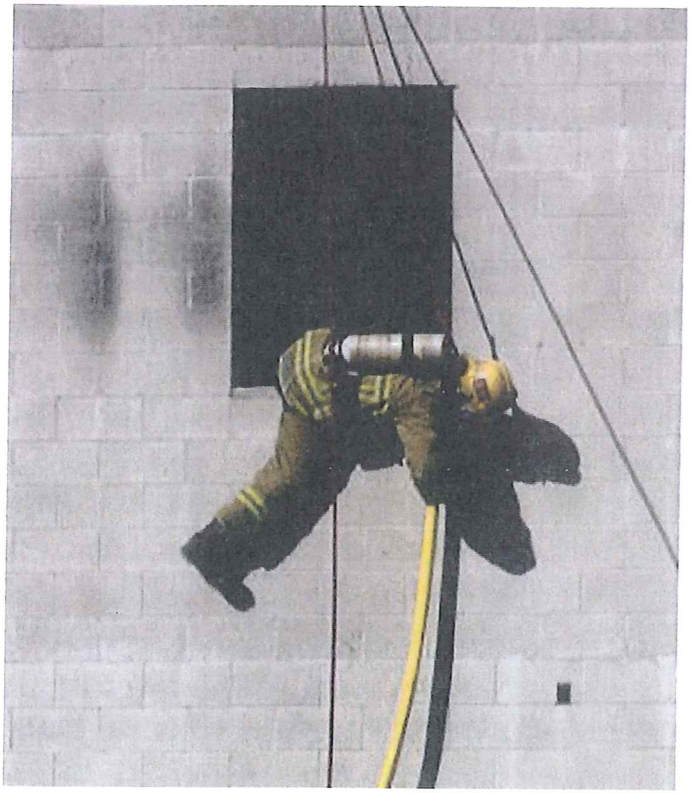
Fortunately no one was hurt during this incident. However, after reviewing the news video, it was evident that we only had seconds to spare before becoming overcome by fire.

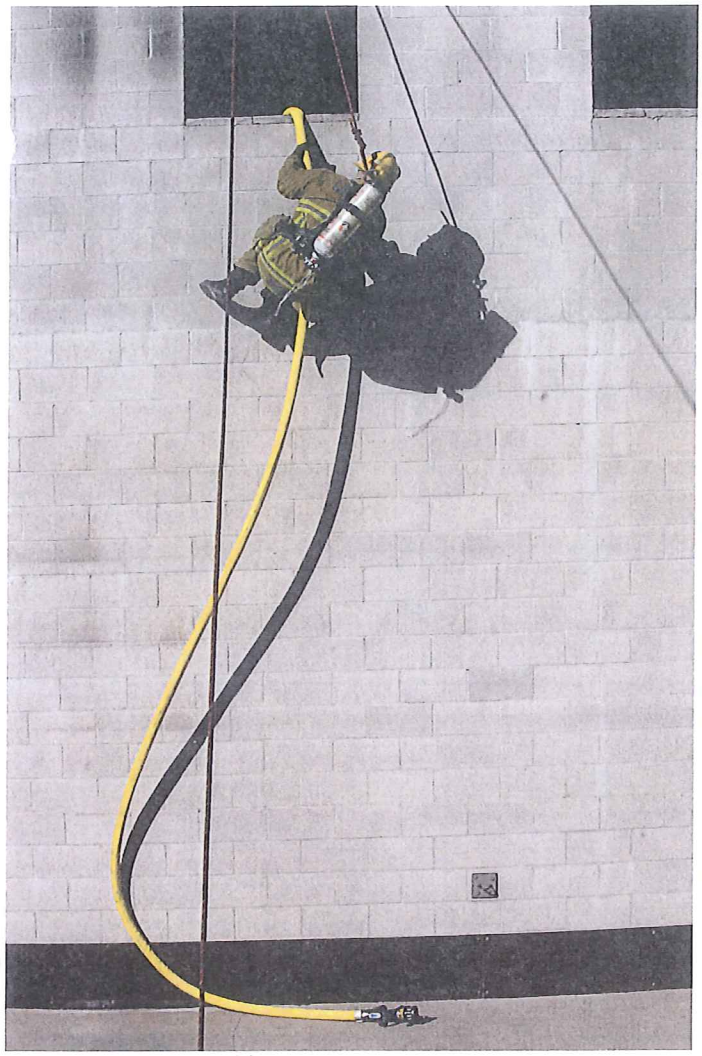
This incident taught us all how valuable and necessary fire fighter survival training is. When I attended fire ground survival skills training I questioned the need of a headfirst ladder escape. My reasoning was, "If I have time to find the ladder with my hands, I should have time to find it with my feet." With this prejudice I practiced the ladder escape reluctantly. At the time of the drill I never anticipated actually having to use this skill. I'm now the biggest advocate of the training. Without it, all of us assigned to Pumper 223 may not have survived that day. ■

EMERGENCY HOSE SLIDE

The emergency hose slide is a self-rescue technique that allows fire fighters to perform an emergency escape using a charged hose line from an upper floor window. This could be due to inadequate water supply or malfunctioning nozzle. The hose slide is a technique that should be considered when the hose stream is not adequate to extinguish the fire or cool the space the fire fighter is occupying. While the emergency hose slide is effective, it is a skill that is used as a last resort — when a fire fighter is faced with no other options.







ADMINISTRATIVE RESPONSIBILITY

Any upper floor emergency egress techniques must be approved by the fire department administration. The administration must ensure all required safety systems are in place.

SUMMARY

Fire fighter survival skills are necessary due to the unpredictability of the fire ground. The fire ground is a hostile and ever-changing environment. As the fire progresses, the fire fighter must make quick decisions on engagement versus disengagement. In many fires, the fire fighter makes this decision based only on what is seen outside prior to entering the structure. Once inside, fire fighter's vision is limited due to the amount of smoke produced by burning synthetic furnishings and composite building materials. The ability to feel heat is also compromised due to the insulative properties of the turnout. The limited information a fire fighter has on the fire contributes to the possibility of human error.

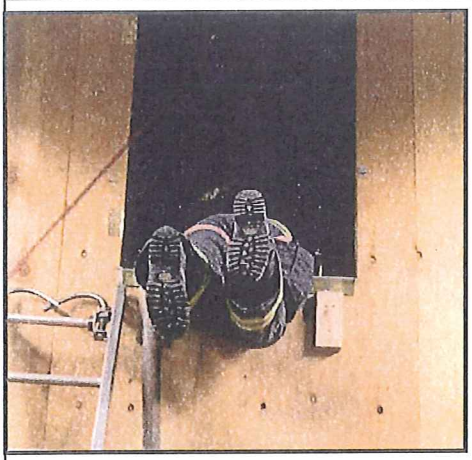
Not having all of the information to make a good decision can result in making a bad decision. As fire fighters, we must improve our ability to process the limited information available to make good decisions. If it were possible to always make good decisions, learning fire ground survival skills would not be necessary. However, this is neither reasonable nor possible. Fires will always be unpredictable, and they will always be dangerous. Due to the additional factors of weather, wind, time of year, budget, staffing, and equipment, a fire department cannot provide for a safe fire ground experience 100 percent of the time. For this reason it is critical that fire departments be prepared 100 percent of the time for the Mayday event. If you are in the fire service long enough, it will not be a matter IF a Mayday event arises, it will be WHEN the Mayday event arrives. Fire fighters must be ready for that 100 percent of the time. ■

Skill #5: Hose Slide

Skill #5: Hose Slide	
If operating above the first floor and performing fire attack, you may find your means of egress cut off due to rapidly advancing fire. Using your attack line as a means of escape is similar to sliding the pole at the fire house. But as with any of these last resort skills, proper training and practice is always necessary. This is a last resort method of escaping the heat, smoke, and fire gases from an advancing fire.	
Time Frame:	0:30 (if combined with other aboveground skills; time frame must be adjusted.
Students (Minimum):	One company
Materials Needed:	• Appropriate training structure with 1st- or 2nd-story window (recommended minimum 24"x24") • 1¾" charged hoseline (minimum size) • Fall protection system • Full personal protective equipment
Site Preparation:	• Ensure that site is free of all hazards. • Confirm that appropriate anchor can be constructed in accordance with fall protection system.
Instructor Directions:	1. Review the skill. 2. Review fall protection system requirements. 3. Assign personnel/students to appropriate fall protection positions. 4. Review the fall protection system with all personnel/students. 5. Ensure all students are wearing full personal protective equipment. 6. Ensure all students are wearing a full-body harness attached to a safety line in accordance to the fall protection system requirements. 7. Perform a final safety check prior to performing the skill.
Student Directions:	
1. Locate the window. ▪ Closing the door to the room to buy additional time, if possible. 2. Travel to the window. ▪ Staying low due to heat and smoke.	

Skill #5: Hose Slide

3. Clear the window frame of glass and screen if needed.
   - Starting at the top to ensure maximum removal of fire gasses and heat.
   - Removing any glass landing on the sill to avoid injury.
4. Push the nozzle and hoseline out the window.
   - Removing all slack.



5. Once the hoseline is out the window, proceed onto the window sill.
   - Staying low.
   - Placing right arm and leg out the window.
   - Rotating body to the left so both arms are in the room and both legs are outside the window.
   - Balancing on your abdominal area.

6. Position yourself on the hoseline.
   - Grabbing hoseline above the sill with one hand and below the sill with the other hand.
   - Wrapping legs around the hoseline.
   - Securing the hoseline between your knees and feet.
7. Slide hoseline to a safe location.
   - Always maintaining four points of contact.
   - Feet, knees, both hands.