

FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Approved and Adopted by the
Office of the State Fire Marshal



Recommended for adoption by the Statewide
Training and Education Advisory Committee
and the
State Board of Fire Services



INSTRUCTOR GUIDE

January 2011



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

INSTRUCTOR GUIDE



Published by

STATE FIRE TRAINING
PO Box 944246
Sacramento, CA 94244-2460

January 2011



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

TABLE OF CONTENTS

Mission Statement	i
Fire Service Training and Education Program	i
Acknowledgments	ii
Student Profile	iii
Target Group	iii
Prerequisites	iii
Desired Attendance Time Frame	iii
Class Requirements and Space	iv
Classroom Equipment.....	iv
Materials	iv
Introduction to the Instructor Guide	v
Course Outline.....	vi
Texts and References	vi
Lesson Plans	
Overview and Administration	Topic 1
Introduction to the Incident Response Pocket Guide	Topic 2
Parts of a Vegetation Fire	Topic 3
Situational Awareness/Look up-Look down/Weather	Topic 4
The 10 Standard Fire Orders/LCES.....	Topic 5
The 18 Situations that Shout Watch Out.....	Topic 6
Fireline Hazards and Strategies.....	Topic 7
Entrapment Avoidance.....	Topic 8
Lessons Learned and Hot Topics	Topic 9
Radio Procedures	Topic 10
Working with California Inmate Fire Crews	Topic 11
Incident Organization	Topic 12
Wildland Personal Protective Equipment	Topic 13
New Generation Fire Shelter and Deployment Skill	Topic 14



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Mission Statement

The mission of State Fire Training is to enable the California fire service to safely protect life and property through education, training, and certification.

Fire Service Training and Education Program

The Fire Service Training and Education Program (FSTEP) was established to provide specific training needs of local fire agencies in California. State Fire Training coordinates the delivery of this training through the use of approved curricula and registered instructors.

The FSTEP series is designed to provide both the volunteer and career fire fighter with hands-on training in specialized areas such as fire fighting, extrication, rescue, and pump operations. All courses are delivered through registered instructors and can be tailored by the instructor to meet your department's specific need.

Upon successful completion of an approved FSTEP course, participants will receive an Office of State Fire Marshal course completion certificate.



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Acknowledgments

State Fire Training coordinated the development of the material contained in this guide. Before its publication, the Statewide Training and Education Advisory Committee (STEAC) and the State Board of Fire Services (SBFS) recommended this guide for adoption by the State Fire Marshal (SFM). This guide is appropriate for fire service personnel and for personnel in related occupations.

Ken Pimlott Acting Director of CAL FIRE	
Tonya Hoover Acting State Fire Marshal	Vacant Assistant State Fire Marshal
Mike Richwine Chief, State Fire Training	Ronny J. Coleman Chair, STEAC

Special acknowledgement and thanks are extended to the following members of CDF/State Fire Training Curriculum Development Division for their diligent efforts and contributions that made the final publication of this document possible.

Alicia Hamilton Fire Service Training Specialist III
--

The material contained in this document was compiled and organized through the cooperative effort of numerous professionals within, and associated with, the California fire service. We gratefully acknowledge these individuals who served as principal developers for this document.

Cindy Hopkins CAL FIRE	Nancy Koerperich CAL FIRE
Dave Marion United States Forest Service	Dick Reynolds United States Forest Service

"We gratefully acknowledge the hard work and accomplishments of those before us who built the solid foundation on which this program continues to grow."



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Student Profile

Target Group

Hired vendors working with the CAL FIRE or the United States Forest Service on any active wildland fire, including water tender operators, heavy equipment with water operators (Skidgine), dozer operators, crew bus drivers, vehicle drivers, mechanics, fallers, swampers, and chain saw operators.

Prerequisites

None.

Desired Attendance Time Frame

Annually, prior to fire season. Course completion card is valid for one year.



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Class Requirements and Space

The characteristics of the classroom and support facilities have a great impact on the learning environment and the instructor's success or failure. For this course, it is advisable for the instructor to adhere as closely as possible to the following guidelines.

Classroom Equipment

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Internet connection

Materials

- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition
- Information Sheet 3-1: Parts of a Vegetation Fire
- Information Sheet 11-1: Basic Regulations Related to Association with Prison Inmates
- One set of wildland PPE for display
- Training fire shelter
- Individual Activity 14-1: Deploying A New Generation Fire Shelter Using The Standing Drop-down Method
- Performance Exam for Deploying A New Generation Fire Shelter Using The Standing Drop-down Method
- Information Sheet 14-1: Notes From Crews That Had To Deploy Shelters



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Introduction to the Instructor Guide

This publication is intended to serve as an instructor guide. For each topic identified in the course outline, a lesson plan has been developed that contains: a time frame, level of instruction, authority, behavioral objective, materials needed, method of instruction, references, preparation statement, lesson content, and end page. Suggested application methods have been identified throughout the lessons for you to use during your presentation.

- **Time Frame:** The estimated duration required for in-class presentation.
- **Level of Instruction:** Identifies the instructional level that the material was designed to fulfill. You have the latitude to increase the level based on available time, local conditions, and the students' apperceptive base.
- **Authority:** Keyed, when applicable, to the appropriate Certification Training Standard task.
- **Behavioral Objective:** The behavioral objective is a statement of the student's performance desired at the end of instruction. You must ensure that enough information is given in the presentation and/or activities to enable the student to perform according to the goal.
- **Materials Needed:** This should be a complete list of everything you will need to present the lesson, including visual aids, tests, etc.
- **References:** These are the specific references the curriculum development team used when developing the lesson plan. In addition, references may be listed as additional study aids for instructors to enhance the lesson -- books, manuals, bulletins, scripts, visual aid utilization plans and the like.
- **Preparation:** The motivational statement connects the student with the lesson plan topic through examples or illustrations relating to their occupation, injury, and even mortality. You will need to develop this statement to fit your target audience.
- **Lesson Content:** Includes information used in the four-step method of instruction.

Cognitive Lesson Plans

PRESENTATION	APPLICATION
Everything you say or display Content Notes	Student Participation <ul style="list-style-type: none"> • Questions • Activities • Audiovisual Cues

Psychomotor Lesson Plan

OPERATIONS	KEY POINTS
Specific actions to be performed by the students	The who, what, when, where, why, and how (the "tricks of the trade")
Begin with a verb, followed by a noun	Safety practices



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

Course Outline

Course Objectives: To provide the student with...

- a) Information on recent wildland events and hot topics
- b) Information for working on a wildland fire, including parts of a vegetation fire, situational awareness, fireline hazards, incident check-in, and radio procedures
- c) The 10 Standard Fire Orders and 18 Watch-out Situations
- d) Information on using the Incident Response Pocket Guide
- e) Techniques on the care, maintenance, and deployment of the new generation fire shelter
- f) Guidelines when working with California inmate fire crew

Course Content:	8:00
1. Overview And Administration	0:15
2. Introduction to the Incident Response Pocket Guide	0:30
3. Parts of a Vegetation Fire	0:30
4. Situational Awareness/Look up-Look down/Weather	0:45
5. The 10 Standard Fire Orders/LCES	0:30
6. The 18 Situations that Shout Watch Out	0:30
7. Fireline Hazards and Strategies	0:30
8. Entrapment Avoidance	0:30
9. Lessons Learned and Hot Topics.....	0:30
10. Radio Procedures	0:30
11. Working with California Inmate Fire Crews	0:30
12. Incident Organization	0:30
13. Wildland Personal Protective Equipment	0:30
14. New Generation Fire Shelter and Deployment Skill	1:30

Texts and References

- "6 Minutes to Safety", NIFC website, <http://www.nifc.gov/sixminutes>
- CAL FIRE Academy ECC Handbook, Section 1800
- CAL FIRE CDC Camp Operations Handbook 6400
- CAL FIRE Health and Safety Handbook 1700, Section 1738
<http://webmain02.fire.ca.gov/pubs/issuance/issuance.htm>
- CAL FIRE Hiring and Utilization Guide, Sections 7761.4.3 and 7761.4.4
http://cdfdata.fire.ca.gov/incidents/incidents_hiredequipment



HIRED EQUIPMENT OPERATOR

Fireline Safety Awareness

- CAL FIRE Policy, <http://cdfweb/Pubs/Issuance/7700/7761.pdf>
- CAL FIRE Training Handbook, Section 4300
<http://webmain02.fire.ca.gov/pubs/issuance/4300/index.htm>
- California Code of Regulations, Title 15, Sections 3400, 3401, and 3415
- Essentials of Firefighting, IFSTA, Fifth Edition
- Field Operations Guide ICS 420-1, FIRESCOPE, July 2007 Edition
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition
- Glossary of Wildland Fire Terminology, NWCG, PMS-205, 2008 Edition
- I-100 Introduction to the Incident Command System, NWCG
<http://training.nwcg.gov/courses.htm>
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition
- Interagency Standards for Fire and Fire Aviation Operations, 2010 Edition, Chapter 7
- Life Hazard Zones, FIRESCOPE
<http://www.firescope.org/whats-new/life-hazards-zones.htm>
- Look Up, Look Down, Look Around Student Workbook, NWCG, NFES 1611, 2009 Edition
- Standards of Personal Protective Equipment, USFS
http://www.nifc.gov/policies/red_book/2010/Ch07Safety.pdf
- The New Generation Fire Shelter, NWCG, NFES-2710
<http://www.nwcg.gov/pms/pubs/newshelt72.pdf>
- The New Generation Fire Shelter DVD, NWCG, NFES 2712, 2003 Edition
- www.nifc.gov/wfstar/index.htm
- www.wildfirelessons.net/Home.aspx
- www.wildfirelessons.net/uploads/6mfs/home.html



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #1 Overview And Administration

Time Frame: 0:15

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will define the course requirements

Standard: To the instructor's satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices

References:

- None

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)

Curiosity (arouse)

Interest (create)

Desire (stimulate)

Begin

Association

Students

Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <ul style="list-style-type: none"> A. Introduce self and other staff B. Facilities orientation <ul style="list-style-type: none"> 1. Restrooms 2. Food locations 3. Smoking locations 4. Break locations 5. Telephones <ul style="list-style-type: none"> a) Cell phone use 6. Parking 7. Emergency procedures <p>II. COURSE DESIGN</p> <ul style="list-style-type: none"> A. This course provides fireline safety awareness training to vendors and operators of private hired equipment <ul style="list-style-type: none"> 1. Required annually prior to dispatch B. You will receive basic safety and fire behavior information to assist you in recognizing potentially unsafe situations <ul style="list-style-type: none"> 1. Should assist you from entering unsafe locations 2. Provide you with standards for survival C. This course will not <ul style="list-style-type: none"> 1. Assist you in completing a USFS or CAL FIRE contract <ul style="list-style-type: none"> a) If you are unaware of that process, contact your local USFS Contracting Officer and/or your local CAL FIRE Unit for information 2. Train you in the operation of private hired equipment <p>III. COURSE COMPLETION</p> <ul style="list-style-type: none"> A. State Fire Training policy requires every student to attend the entire class 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>1. If there is a problem with meeting this requirement, consider enrolling at another date when you can commit the time required</p> <p>B. Classroom and group participation are required</p> <p>C. Upon successful completion of training, participants receive a course completion card valid for one year from the date of issue</p> <p>IV. COURSE COMPLETION CARD</p> <p>A. You will be required to show your valid course completion card upon arrival at an incident</p> <p>B. Failure to provide a valid State Fire Marshal (SFM) course completion card may result in your termination from the incident</p> <p>C. Termination from an incident may result in loss of pay for any expenses incurred</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

The purpose of the course is to educate hired vendors who plan to engage in wildland fire suppression and other incident support activities, how to recognize and mitigate risk, and maintain safe and effective practices while working under agency supervision on an incident. Upon successful completion of training, participants will receive a course completion card valid for 1 year from date of issue.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #2 Introduction To The Incident Response Pocket Guide

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation and the Incident Response Pocket Guide (IRPG)

Behavior: The student will identify sections within the IRPG that describes a collection of best practices for risk management on a wildland incident

Standard: To the instructors satisfaction according to the information contained in IRPG

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition

References:

- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>NOTE: Distribute one Incident Response Pocket Guide to each student. The students will keep these for future reference.</p> <p>I. INTRODUCTION</p> <p>A. This topic is an overview of each relevant section in the Incident Response Pocket Guide or IRPG regarding safety, situational awareness, and risk management practices a hired vendor needs to know</p> <ol style="list-style-type: none"> 1. The IRPG is referenced throughout this class in order for you to become familiar <p>B. The IRPG is a fire job aid and training reference for operational personnel assigned to an incident</p> <ol style="list-style-type: none"> 1. It also has a secondary application for all-hazard incident response 2. Provides a "NOTES" page after each section so you can customize your guide <p>C. The IRPG does not take the place of individual judgment and expertise</p> <ol style="list-style-type: none"> 1. You must improve those skills through extensive training and practice, plus on-the-job experience <p>D. The IRPG is not intended to provide you with a solution to all situations you may incur on an incident</p> <ol style="list-style-type: none"> 1. It is a collection of best practices for a limited number of incident situations <p>II. WHITE - TABLE OF CONTENTS</p> <p>A. Operational leadership</p> <ol style="list-style-type: none"> 1. Essential element <ol style="list-style-type: none"> a) Confidence b) Competent 2. Provides purpose, direction, and motivation to accomplish difficult tasks under dangerous and stressful situations 3. Duty, Respect, Integrity <ol style="list-style-type: none"> a) Bullet points to provide direction and motivation 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1) For your crew 2) For yourself <p>B. Communication responsibilities</p> <ul style="list-style-type: none"> 1. Five communication responsibilities <ul style="list-style-type: none"> a) Brief others b) Debrief your actions c) Communicate hazards d) Acknowledge messages e) Ask if you don't know <p>C. Leader's intent</p> <ul style="list-style-type: none"> 1. They must ensure you have a clear understanding of their intent for your assignment <p>D. Human factor barriers to situation awareness</p> <ul style="list-style-type: none"> 1. Low experience level with local factors 2. Distractions from primary task 3. Fatigue 4. Stress reactions 5. Hazardous attitudes <p>E. After action review (AAR)</p> <ul style="list-style-type: none"> 1. Participants openly and honestly discuss what transpired 2. Focus on lessons learned 3. Be positive and constructive in your comments <p>III. GREEN – OPERATIONAL ENGAGEMENT</p> <p>A. Pages 1-14</p> <p>B. Risk management</p> <ul style="list-style-type: none"> 1. Provides a checklist for awareness and control <ul style="list-style-type: none"> a) Situation awareness b) Hazard assessment c) Hazard control 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>d) Decision point</p> <p>e) Evaluate</p> <p>C. Look up, down, and around</p> <p>NOTE: Detailed in Topic 4 - Situational Awareness/Look up-Look down/Weather.</p> <p>1. Provides a table to quickly reference fire environment indicators</p> <p>a) Fuel characteristics</p> <p>b) Fuel moisture</p> <p> 1) Relative humidity (RH)</p> <p>c) Fuel temperature</p> <p>d) Terrain</p> <p>e) Wind</p> <p>f) Atmospheric instability</p> <p>g) Fire behavior</p> <p>D. Common denominators of fire behavior on tragedy fires</p> <p>1. Four major common denominators on fatal and near-fatal fires</p> <p>a) Often occur on small fires or quiet areas of large fires</p> <p>b) Often occur in relatively light fuel</p> <p>c) Often occur with unexpected shifts in wind direction or speed</p> <p>d) Often occur when responding to topographical conditions and runs uphill</p> <p>E. Common tactical hazards</p> <p>1. Position</p> <p>2. Situation</p> <p>F. LCES</p> <p>NOTE: Detailed in Topic 5 - The 10 Standard Fire Orders/LCES.</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1. Lookouts 2. Communications 3. Escape routes 4. Safety zones G. Downhill checklist <ul style="list-style-type: none"> 1. Downhill fireline construction is hazardous <ul style="list-style-type: none"> a) Steep terrain b) Fast-burning fuels c) Rapidly changing weather H. Wildland/Urban interface firefighting <ul style="list-style-type: none"> 1. Structure protection guidelines in relation to <ul style="list-style-type: none"> a) Fire behavior b) Size-up c) Triage d) Tactics <p>IV. GOLD – SPECIFIC HAZARDS</p> <ul style="list-style-type: none"> A. Pages 17-29 B. Refusing risk <ul style="list-style-type: none"> 1. Should you feel an assignment is unsafe, you have the right to refuse the risk <ul style="list-style-type: none"> a) You also have the obligation to identify safe alternatives for completing the assignment C. Specific hazards guidelines for situational awareness and hazard control <ul style="list-style-type: none"> 1. Thunderstorm safety 2. Hazardous tree safety 3. Power line safety <ul style="list-style-type: none"> a) Mandatory notifications to supervisor for down power lines 4. Roadside response 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 5. Unexploded ordinance safety 6. Oil and gas site safety 7. Last resort survival <ul style="list-style-type: none"> a) This is important to know b) Review and study prior to any response on the fireline <p>V. PINK – FIRST AID</p> <ul style="list-style-type: none"> A. Pages 41-48 B. First aid guidelines <ul style="list-style-type: none"> 1. Know your location at all times in order to report any medical emergencies 2. Do ONLY what you know how to do 3. Keep records of what you do 4. Topics for guidance you may need in a incident situation: <ul style="list-style-type: none"> a) CPR b) Heat related injuries c) Burn injuries <p>VI. BACK COVER</p> <ul style="list-style-type: none"> A. Inside <ul style="list-style-type: none"> 1. Briefing checklist <ul style="list-style-type: none"> a) Operational vendors need to attend briefings <ul style="list-style-type: none"> 1) Assists the vendors with information needed for their operational assignment b) Provides a checklist for vendors to ensure they don't miss critical details in the briefings c) Bring questions or concerns to your supervisor B. Outside <p>NOTE: Discussed in Topic 5 - The 10 Standard Fire Orders/LCES and Topic 6 - The 18 Situations that Shout Watch Out.</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>C. The "10" and "18" are so important to survival that the IRPG has this quick reference for ease of review</p> <ol style="list-style-type: none">1. 10 standard firefighting orders2. 18 watch out situations	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Remember to review the IRPG prior to and during each assignment to ensure you understand and improve your situational awareness and risk management process relative to fireline hazards. Your safety and the safety of others may depend on the 10 standard firefighting orders, the 18 watch out situations, and the operational briefings.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #3 Parts Of A Vegetation Fire

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the parts of a vegetation fire

Standard: To the instructors satisfaction according to the information contained in Information Sheet 3-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Information Sheet 3-1: Parts of a Vegetation Fire

References:

- Essentials of Firefighting, IFSTA, Fifth Edition, Pages 803-804
- Glossary of Wildland Fire Terminology, NWCG, PMS-205, 2008 Edition

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)

Curiosity (arouse)

Interest (create)

Desire (stimulate)

Begin

Association

Students

Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <p>A. It is important to know the parts of a vegetation fire in order to maintain consistent terminologies and common communications</p> <p>NOTE: Distribute Information Sheet 3-1: Parts of a Vegetation Fire.</p> <p>II. PARTS OF A VEGETATION FIRE</p> <p>A. Point of origin or origin</p> <ol style="list-style-type: none"> 1. Area where the fire started 2. The point from which it spread <p>B. Heel</p> <ol style="list-style-type: none"> 1. The rear of a wildland fire opposite of the head 2. At or near the point of origin <p>C. Head</p> <ol style="list-style-type: none"> 1. Area where fire rate of spread is the fastest 2. A fire can have more than one head <p>D. Flank</p> <ol style="list-style-type: none"> 1. Sides of a wildland fire <ol style="list-style-type: none"> a) Roughly parallel to the main direction of fire spread 2. Every fire has two flanks or sides which separate the head from the heel 3. Left flank and right flank are identified by standing at the point of origin, facing the fire's head <p>E. Island</p> <ol style="list-style-type: none"> 1. An area of unburned fuel within the fire's perimeter <p>F. Finger</p> <ol style="list-style-type: none"> 1. Long narrow strips of fire extending from the main portion of the fire perimeter 2. These fingers can form new heads <p>G. Hot spots</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1. A particularly active part of the fire 2. Spots along the fire perimeter that are burning more intensely than other parts of the fireline H. Spot fire <ul style="list-style-type: none"> 1. A fire outside of the main fire perimeter that was ignited by sparks or hot embers 2. Present a hazard to personnel and equipment <ul style="list-style-type: none"> a) You may become trapped between the main fire and spot fire I. Burn or black <ul style="list-style-type: none"> 1. The burned area inside the fire's perimeter 2. Generally considered the safest part of the fire J. Green <ul style="list-style-type: none"> 1. Unburned fuel inside or outside the fire's perimeter 2. Does not necessarily indicate a safe area K. Pocket <ul style="list-style-type: none"> 1. Area of unburned fuel between two fingers, or between a finger and the main body of the fire 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

To achieve effective communications on a vegetation fire, all firefighters must know the parts of a fire. Your safety and the safety of others may depend on this knowledge.

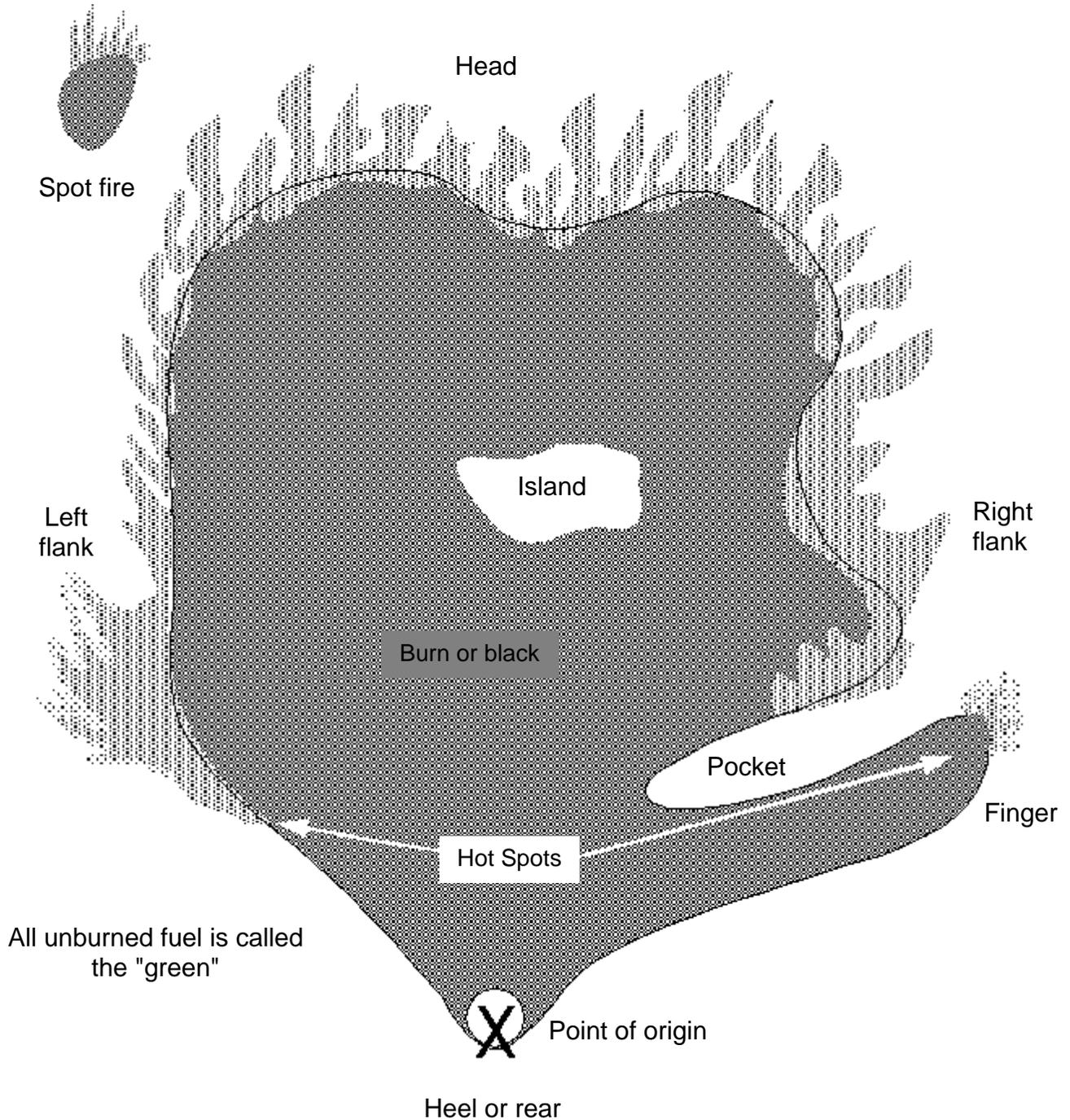
Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.

Information Sheet 3-1: Parts of a Vegetation Fire





FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #4 Situational Awareness, Look Up Look Down, And Weather

Time Frame: 0:45

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify different types of fire environmental hazards and indicators of hazardous fire conditions when implementing the risk management process

Standard: To the instructors satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition

References:

- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition
- Look Up, Look Down, Look Around Student Workbook, NWCG, NFES 1611, 2009 Edition, Pages 0.2-8.3
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 4-7

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <p>A. SAFETY IS ALWAYS OUR #1 GOAL</p> <p>NOTE: Refer to the green pages in the IRPG.</p> <p>II. RISK MANAGEMENT</p> <p>A. Situation awareness</p> <ol style="list-style-type: none"> 1. Gather information about factors and indicators to increase situational awareness 2. If you observe an indicator at a critical level, look for additional indicators since they could influence each other 3. These “indicators” are usually accumulating and compounding <p>B. Hazard assessment</p> <ol style="list-style-type: none"> 1. Use these indicators to estimate potential fire behavior hazards <p>C. Hazard control</p> <ol style="list-style-type: none"> 1. Firefighting orders 2. Watch out situations 3. LCES 4. Anchor point and downhill line construction checklist <p>D. Decision point</p> <ol style="list-style-type: none"> 1. Are controls in place for identified hazards <p>E. Evaluate</p> <ol style="list-style-type: none"> 1. Human factors 2. Continually evaluate the situation. 3. Monitor the indicators to determine what is changing 4. Indicators can signal dangers or opportunities <p>III. LOOK UP, DOWN, AND AROUND</p> <p>A. Refers to the environmental factors and their respective indicators</p> <ol style="list-style-type: none"> 1. Pay special attention to indicators in bold print 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>B. Potential fire behavior hazards within the fire environment</p> <ol style="list-style-type: none"> 1. Fire behavior triangle <p>NOTE: Draw the fire behavior triangle and label with fuels, topography, and weather.</p> <ol style="list-style-type: none"> a) Fuels b) Topography c) Weather <p>C. Seven factors within the fire environment to be monitored</p> <ol style="list-style-type: none"> 1. Fuel characteristics 2. Fuel moisture 3. Fuel temperature 4. Terrain 5. Wind 6. Atmospheric instability 7. Fire behavior <p>D. Indicators associated with these factors are clues used to size-up the fire environment and anticipate potential fire behavior</p> <p>E. Recognizing potential fire behavior is one of the keys to safe and effective wildland firefighting</p> <ol style="list-style-type: none"> 1. Stay alert 2. Maintain good situational awareness 3. Always look up, look down, and look around for the factors and indicators <p>IV. SEVEN FIRE ENVIRONMENT FACTORS AND THEIR INDICATORS</p> <p>A. Fuel characteristics</p> <ol style="list-style-type: none"> 1. Continuous fine fuels <ol style="list-style-type: none"> a) One of the common denominators of fire behavior on tragedy fires 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1) Rapid rate of spread 2. Heavy loading of dead and downed fuels <ul style="list-style-type: none"> a) Intense burning conditions 3. Ladder fuels <ul style="list-style-type: none"> a) Potential for surface fires to move up into trees (torching and/or crown fire) 4. Tight crown spacing <ul style="list-style-type: none"> a) Potential for fire to carry from crown to crown 5. Special conditions <ul style="list-style-type: none"> a) Firebrand sources b) Snags c) Preheated canopy d) Frost and bug kill e) Unusually fine fuels f) High dead to live fuel ratio B. Fuel moisture <ul style="list-style-type: none"> 1. Determines if fuels are ready to burn and spread rapidly 2. Fuel moisture changes diurnally and throughout the seasons 3. Drought conditions vary in different geographical areas over time 4. Relative humidity (RH) <ul style="list-style-type: none"> a) Plays a key role in fuel moistures and fire behavior b) Low RH is <25% c) Fine fuels are more rapidly influenced than other fuels d) Be aware when atmospheric conditions are getting hotter and drier C. Fuel temperature 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ol style="list-style-type: none"> 1. Effects fuel flammability and potential for rate of spread 2. Varies with diurnal and topographic changes <ol style="list-style-type: none"> a) Slope, aspect, and direct sunlight influences fuel temperature and flammability D. Terrain <ol style="list-style-type: none"> 1. Steep slopes (>50%) <ol style="list-style-type: none"> a) Expect rapid rates of fire spread b) Expect rollouts and ignition of fuels below 2. Chutes, chimneys, and box canyons <ol style="list-style-type: none"> a) Potential for very rapid rates of fire spread b) Combination of steep terrain and updrafts of air creates a "chimney effect" c) Differences <ol style="list-style-type: none"> 1) Chutes <ul style="list-style-type: none"> • V-shaped ravines where hot air and gases travel rapidly 2) Chimneys <ul style="list-style-type: none"> • Steep ravines that create turbulent updrafts causing a "chimney effect" 3) Box canyons <ul style="list-style-type: none"> • Deep-sided, dead-end canyons with little chance of escape 3. Saddles <ol style="list-style-type: none"> a) Expect rapid rates of fire spread b) Fires are often accelerated through saddles because of wind channeling and less topographic resistance 	<p>What are the differences in chutes, chimneys, and box canyons?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>4. Narrow canyons</p> <ul style="list-style-type: none"> a) Expect rapid rates of fire spread and/or erratic fire behavior b) Radiant or convective spotting can cause multiple spot fires c) Slope reversal can cause rapid upslope runs on opposite slopes <p>E. Wind</p> <ol style="list-style-type: none"> 1. Winds can change frequently and are most difficult to predict 2. Primary factor that influences fire spread in both rate and direction 3. Wind is one of the most common denominators of fire behavior on tragedy fires 4. Constantly assess and always maintain good situational awareness 5. Know what your fire and winds are doing at all times 6. Pay attention to fire behavior and weather forecasts 7. Throw dust in the air or tie a piece of flagging to your equipment to determine wind direction 8. Strong surface wind <ul style="list-style-type: none"> a) Usually ≥ 10 mph b) Rapid rates of fire spread c) Spotting 9. Lenticular clouds <ul style="list-style-type: none"> a) High winds aloft can surface producing strong down slope winds and other extreme fire behavior hazards 10. High, fast moving clouds <ul style="list-style-type: none"> a) Anticipate wind shifts 11. Approaching cold front <ul style="list-style-type: none"> a) Winds will shift and increase 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> b) Expect dangerous conditions due to stronger winds and changing wind direction c) Possible thunderstorm approaching <p>12. Cumulonimbus development</p> <ul style="list-style-type: none"> a) Indicator of an approaching thunderstorm b) Expect strong, erratic downdraft winds and lightning <ul style="list-style-type: none"> 1) Can cause sudden and extreme fire behavior c) If you see virga, downdrafts have begun <ul style="list-style-type: none"> 1) Anticipate strong, gusty winds <p>13. Sudden calm</p> <ul style="list-style-type: none"> a) Expect wind shifts or other changes in weather, which can increase potential for hazardous fire conditions <p>14. Battling or shifting winds</p> <ul style="list-style-type: none"> a) Potential wind reversals b) Expect these winds if you see <ul style="list-style-type: none"> 1) Wavering smoke column 2) A cold front passage 3) Wind blowing through saddles 4) Wind at a confluence of a drainage 5) Local wind effects <p>NOTE: Reference the "Beaufort Scale for Estimating Wind Speed" in the IRPG on page 77.</p> <p>F. Atmospheric instability</p> <p>1. Unstable air mass</p> <ul style="list-style-type: none"> a) Vertical air movement is occurring and has the potential for rapid rates of fire spread/fire growth b) Good visibility c) Gusty wind and dust devils d) Cumulus clouds 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> e) Castellatus clouds in the morning f) Smoke rising straight up 2. Stable air mass <ul style="list-style-type: none"> a) Can change frequently b) Thermal belt c) Inversion layer <ul style="list-style-type: none"> 1) When inversion layers begin to lift or break, this is a indicator of transition from stable to unstable conditions G. Fire behavior <ul style="list-style-type: none"> 1. Leaning smoke column <ul style="list-style-type: none"> a) Rapid rates of fire spread b) Spotting 2. Sheared column <ul style="list-style-type: none"> a) Strong winds aloft b) Spotting c) Increase in fire behavior d) Avoid working under a sheared column 3. Well-developed column <ul style="list-style-type: none"> a) Intense burning and unpredictable fire spread b) Strong downburst c) Can create a plume dominated fire 4. Changing column <ul style="list-style-type: none"> a) Column changing to a darker color b) Rotating or splits indicates fire behavior c) Fire intensity is increasing 5. Trees torching <ul style="list-style-type: none"> a) Possible transition from a surface fire to a crown fire 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> b) Expect extreme fire behavior conditions if single tree torching progresses to groups of trees torching 6. Smoldering fire <ul style="list-style-type: none"> a) Will become more active b) Changes in fires environmental influences c) Possible increased flame lengths and rate of fire spread 7. Fire whirls <ul style="list-style-type: none"> a) Changes in fires environmental influences b) Fire is developing vertically and building intensity c) Expect increased fire activity d) Potential for fire to move from a surface fire to a crown fire e) Spotting 8. Frequent spot fires <ul style="list-style-type: none"> a) Changes in fires environmental influences b) Increase in fire spread c) Increase in fire complexity d) Anticipate increased fire behavior hazards 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

The ability to effectively monitor the fire environment and anticipate the potential for extreme fire behavior is one of the keys to safe and effective decision-making. All fires have potential to create adverse conditions. Continually monitor the fire environment factors and their indicators. Adhere to all fire safety guidelines. Ensure your LCES safety system is in place, you understand them, and they are obtainable. Continually assess your observations, evaluate changes, and apply the risk management process. **Always provide for your safety and the safety of others.**

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #5 The 10 Standard Firefighting Orders And LCES

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the ten standard firefighting orders and lookouts, communications, escape routes and safety zones (LCES)

Standard: To the instructor's satisfaction according to the information contained in the IRPG

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices

References:

- Essentials of Firefighting, IFSTA, Fifth Edition, Page 806
- Field Operations Guide ICS 420-1, FIRESCOPE, July 2007, Inside Front and Back Covers
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 10-14
- Glossary of Wildland Fire Terminology, NWCG, 2008 Edition, Pages 67, 115, 151
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <ul style="list-style-type: none"> A. Guidelines to identify, communicate, and avoid hazardous fire situations B. The ten standard firefighting orders are indicative of the most common dangers to fire personnel <ul style="list-style-type: none"> 1. Studies of fire fighter fatalities have led to the development of these firefighting orders C. In every case of a wildland fire fighter line of duty death (LODD), one or more of these orders was ignored D. You must understand and follow these orders <p>II. THE 10 STANDARD FIREFIGHTING ORDERS</p> <ul style="list-style-type: none"> A. Fire behavior <ul style="list-style-type: none"> 1. Keep informed on fire weather conditions and forecasts 2. Know what your fire is doing at all times 3. Base all actions on current and expected behavior of the fire B. Fireline safety <ul style="list-style-type: none"> 1. Identify escape routes and safety zones and make them known 2. Post lookouts when there is possible danger 3. Be alert; keep calm; think clearly; act decisively C. Organizational control <ul style="list-style-type: none"> 1. Maintain prompt communication with your forces, your supervisor, and adjoining forces 2. Give clear instructions and be sure they are understood 3. Maintain control of your forces at all times D. If you considered 1-9, then <ul style="list-style-type: none"> 1. Fight fire aggressively, having provided for safety first 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>II. LCES – LOOKOUTS, COMMUNICATIONS, ESCAPE ROUTES AND SAFETY ZONES</p> <p>A. This acronym is used by fire personnel and refers to all fire fighters on the fireline, including private vendors</p> <p>B. Must be established and known to all personnel before it is needed</p> <p>C. Lookouts</p> <ol style="list-style-type: none"> 1. Will be posted at vantage points to increase your safety <p>D. Communications</p> <ol style="list-style-type: none"> 1. Be aware of radio frequencies and methods of communication when assigned to the fireline to ensure notification of safety information and updates to situational changes <p>E. Escape routes</p> <ol style="list-style-type: none"> 1. Established by Fireline Supervisors and you should be aware of their location 2. Always know where you are in relation to the escape route <p>F. Safety zones</p> <ol style="list-style-type: none"> 1. Established by Fireline Supervisors and is the area where personnel retreat in emergency situations 2. Know your quickest direction of travel to the safety zone 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Numerous situations on fires can jeopardize your safety. Remembering and understanding the 10 Standard Firefighting Orders and the acronym, LCES, may assist you in or prevent a bad situation.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #6 The 18 Situations That Shout Watch Out

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the 18 fire situations that shout, "watch out"

Standard: To the instructors satisfaction according to the information contained in Information Sheet 6-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition

References:

- CAL FIRE Training Handbook, Section 4300
<http://webmain02.fire.ca.gov/pubs/issuance/4300/index.htm>
- Field Operations Guide ICS 420-1, FIRESCOPE, July 2007, Inside Back Cover
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Page 12 and Inside Back Cover
- Glossary of Wildland Fire Terminology, NWCG, 2008 Edition, Pages 67,115, 151
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition, Back Cover

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>NOTE: Refer students to the back cover of their IRPG.</p> <p>I. 18 FIRE SITUATIONS THAT SHOUT, "WATCH OUT"</p> <p>A. Fire not scouted and sized-up</p> <ol style="list-style-type: none"> 1. Scout by using aerial recon or ground observation 2. Look for fire size and direction, fuel types, topography, hazards, safety zones and escape routes <ol style="list-style-type: none"> a) If safety zones not available, create them <p>B. In country not seen in daylight</p> <ol style="list-style-type: none"> 1. Stay with your crew, don't get lost 2. Advance scouting is essential <ol style="list-style-type: none"> a) Proceed slowly and carefully b) Watch for sheer drop-offs, shafts, rockslides, etc. 3. Use headlamps and flashlights for all night activities 4. Maintain communications with your fireline supervisor 5. Stay close to the fireline <ol style="list-style-type: none"> a) If your become lost, you can follow hose lays, dozer lines, and handlines b) Avoid taking "shortcuts" <p>C. Safety zones and escape routes not identified</p> <ol style="list-style-type: none"> 1. Safety zone <ol style="list-style-type: none"> a) Must be large enough for all personnel to survive without a fire shelter b) Separation distance between the fire fighter and the flames should be at least four times (4X) the maximum continuous flame height c) Areas for consideration <ol style="list-style-type: none"> 1) Natural features such as meadows, rock areas, water 2) Dirt, barren areas (also areas created by dozers) 3) Back into clean burn 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> d) Areas to avoid <ul style="list-style-type: none"> 1) Upslope and downwind from the fire 2) Chimneys, saddles, chutes, narrow canyons 3) Narrow roads e) Not a deployment zone 2. Escape routes <ul style="list-style-type: none"> a) Lead to safety zones b) Avoid uphill escape routes <ul style="list-style-type: none"> 1) Shortest and most direct route to safety zone c) Relatively easy to travel d) Make them known to all personnel <ul style="list-style-type: none"> 1) Update their location as conditions warrant D. Difference between a safety zone and a deployment zone <ul style="list-style-type: none"> 1. Safety zone <ul style="list-style-type: none"> a) An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe b) Safety zones may also be constructed as integral parts of fuel breaks <ul style="list-style-type: none"> 1) Usually greatly enlarged areas that can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity 2. Deployment zone <ul style="list-style-type: none"> a) Last ditch areas where fire shelters must be deployed to ensure fire fighter survival b) Used when fire conditions are such that escape routes and safety zones have been compromised 	<p>What is the difference between a safety zone and a deployment zone?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>E. Unfamiliar with weather and local factors influencing fire behavior</p> <ol style="list-style-type: none"> 1. Keep informed on forecasts; understand what they mean 2. One of the most critical factors affecting fire behavior is weather 3. Watch for nature's danger signals, wind change, dust devils, temperature change, approaching weather system, etc. 4. Maintain communications with your supervisor <p>F. Uninformed on strategy, tactics, and hazards</p> <ol style="list-style-type: none"> 1. Discussed during briefings 2. Strategy is the overall plan to achieve the fire suppression objectives <ol style="list-style-type: none"> a) All personnel must be familiar with overall strategy 3. Tactics are specific actions done to suppress the fire <ol style="list-style-type: none"> a) Tactics are used to accomplish strategy 4. Specific hazards <ol style="list-style-type: none"> a) Heavy fuels b) Topographic features such as slopes and chimneys c) Falling operations d) Firing operations e) There are some hazards involved with accomplishing tactics <p>G. Instructions and assignments not clear</p> <ol style="list-style-type: none"> 1. Repeat them back until you clearly understand, especially before going on the fireline 	<p>When will you be informed on strategy, tactics, and hazards?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 2. Communicate frequently with your supervisor and keep him/her posted on your progress 3. Monitor the radio at all times H. No communication link with crew members or supervisor <ul style="list-style-type: none"> 1. Communications with all crew members, supervisor and adjoining forces is critical <ul style="list-style-type: none"> a) To alert to changing conditions b) To alert to problems developing c) To alert to blow-up d) To maintain control and prevent panic 2. Monitor the radio at all times I. Constructing line without safe anchor point <ul style="list-style-type: none"> 1. An anchor point is required when planning your suppression tactics <ul style="list-style-type: none"> a) A point or location not currently, or likely in the future to be threatened by fire spread b) A place to begin your fireline where you are likely to hold your line J. Building fireline downhill with fire below <ul style="list-style-type: none"> 1. Have escape routes established ahead of time 2. Stay alert this is an extremely dangerous situation 3. Stay with your crew 4. Post lookout as necessary, be alert to conditions around you 5. Fuels on the upslope are preheated and will burn rapidly 6. Spot fires on the upslope can be expected 7. Fires may generate momentum upslope, jump across hose lays, constructed hand or dozer lines, and/or fire retardant drops K. Attempting frontal assault on fire 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ol style="list-style-type: none"> 1. Position engine/vehicles so as to have an immediate escape route 2. Many of these frontal assault tactics require numerous engines, restricting access and maneuverability 3. Observe the convection column direction and watch for spot fires behind you 4. Do not wander into the green at an oncoming fire 5. Be alert and follow instructions 6. Charge hoselines before starting the frontal attack <p>L. Unburned fuel between you and fire</p> <ol style="list-style-type: none"> 1. An extremely dangerous situation, particularly if the fire is spotting in your direction 2. Always requires that lookouts be posted at strategic points for constant observation 3. Line may be burned out behind you, by your crew supervisor, as it is being constructed 4. Remain in constant contact with your fireline supervisor 5. Be prepared to use escape routes immediately, and remain alert 6. Make sure any constructed line is wide enough and clean, down to bare soil 7. Anchor your starting point to insure holding line without being flanked 8. Keep looking behind you to ensure line is secure <p>M. Cannot see main fire; not in contact with someone who can</p> <ol style="list-style-type: none"> 1. A very dangerous situation 2. Scout area thoroughly 3. Preplan escape routes and advise others of them 4. Post lookouts as necessary 5. Be weather alert 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>6. Follow instructions from your supervisor</p> <p>7. Establish communications as quickly as possible</p> <p>N. On a hillside where rolling material can ignite fuel below</p> <ol style="list-style-type: none"> 1. The steepness of the slope affects both the rate and direction of the spread <ol style="list-style-type: none"> a) On uphill side, flames are closer to the ground, preheating fuels above the fire b) Convected heat rising upslope causes a draft, increasing rate of spread c) Wind currents generally flow uphill during the day and downhill at night 2. Construct trenches on slopes to hold all rolling material 3. Have established escape routes and know where they are 4. Post lookouts as necessary <p>O. Weather becoming hotter and drier</p> <ol style="list-style-type: none"> 1. There will usually be a decrease in humidity and fuel moisture <ol style="list-style-type: none"> a) Air is usually drier during the day than it is at night because temperatures are usually cooler at night b) Fuels, then, are also drier during the day than at night c) The result is that fires will normally burn more rapidly during the day 2. Be alert to an increase in hot spots appearing on the fireline <ol style="list-style-type: none"> a) Difference between a hot spot and a spot fire <ol style="list-style-type: none"> 1) Hot spot <ul style="list-style-type: none"> • A particularly active part of a fire 	<p>What is the difference between hot spots and spot fires?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>2) Spot fire</p> <ul style="list-style-type: none"> • A fire ignited outside the perimeter of the main fire by a firebrand <p>3. The behavior of the fire is likely to change</p> <p>P. Wind increases and/ or changes direction</p> <ol style="list-style-type: none"> 1. Of all the influences on a fire's behavior, wind has the greatest influence on both the rate and direction of spread 2. Fire may begin to spread in a different direction 3. The method of fire attack and approach may now have to be changed 4. Be alert, post lookouts as necessary 5. One visible indicator of a possible change in wind speed and direction, is the presence of thunderstorms (cumulus clouds) <ol style="list-style-type: none"> a) Gusty winds usually flow out from the edge of a thunderstorm and can reach speeds up to 70 mph b) Can create erratic fire behavior <p>Q. Getting frequent spot fires across line</p> <ol style="list-style-type: none"> 1. Live fuels have a higher moisture content than dead fuels <ol style="list-style-type: none"> a) Spot fires are most likely to occur in dead fuels with low moisture content 2. This is an indication that fire conditions and weather are changing 3. Be alert to your surroundings 4. Inform fireline supervisor of the change in conditions 5. Do not become trapped between two fires 6. Inform your supervisor prior to initiating action on a spot fire 7. Cut your way into spot fire areas, do not just walk through the green <p>R. Terrain and fuels make escape to safety zones difficult</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ol style="list-style-type: none"> 1. Know where the fire is at all times in relation to your location 2. Know where you are going 3. Stay as close to the burn as possible 4. Be alert for rolling rock and fuels <ol style="list-style-type: none"> 1) Warn others below if something starts rolling downhill 2) Make sure you have secure footing on steep slopes 5. In dense fuels, pre-establish your route and cut a path, even if its nothing more than a walking path wide enough for others to follow <ol style="list-style-type: none"> a) Widen as necessary <p>S. Taking a nap near the fireline</p> <ol style="list-style-type: none"> 1. Sleep in shifts if necessary 2. Sleep as a group and only with permission from your fireline supervisor 3. Do not wander off from crew, stay together 4. Never sleep in the green; always in the burn 5. Post a lookout to stay awake and protect crewmembers 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Numerous situations that you may find yourself in could jeopardize your safety. If you pay attention to the 18 fire situations that shout, "Watch Out," you will be better prepared to make correct decisions if an emergency condition arises.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #7 Fireline Hazards And Strategies

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify fireline hazards and strategies that potentially impact hired vendors

Standard: To the instructors satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices

References:

- CAL FIRE Health and Safety Handbook 1700, Section 1738
<http://webmain02.fire.ca.gov/pubs/issuance/issuance.htm>
- Essentials of Firefighting, IFSTA, Fifth Edition, Pages 805-806
- Field Operations Guide ICS 420-1, FIRESCOPE, July 2007, Pages 21-4 through 21-6
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 19, 25, 54-59, 61-69, 73-74, 78, 106-107
- Glossary of Wildland Fire Terminology, NWCG, 2008 Edition, Page 157
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition, Pages 9-10 and 17-29
- Life Hazard Zones, FIRESCOPE
<http://www.firescope.org/whats-new/life-hazards-zones.htm>

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <p>A. Fireline hazards</p> <ol style="list-style-type: none"> 1. Identification of fireline hazards is crucial for life safety 2. Follow established guidelines for the identification and management of immediately life threatening conditions at the scene of an incident <ol style="list-style-type: none"> a) Procedure to notify personnel b) Methods to isolate and clearly identify the hazard <p>B. Fireline strategies</p> <ol style="list-style-type: none"> 1. Become familiar so you will understand directions provided by supervisors as well as those given during briefings and assignments <ol style="list-style-type: none"> a) Direct attack b) Indirect attack c) Combination attack <p>II. FIRELINE HAZARDS</p> <p>A. Definitions</p> <ol style="list-style-type: none"> 1. Life hazard <ol style="list-style-type: none"> a) The existence of a situation or condition that would likely cause serious injury or <u>death</u> to exposed persons 2. Life Hazard Zone <ol style="list-style-type: none"> a) An area within the fire perimeter that has been identified as life threatening and hazardous to emergency responders and is isolated through the use of barriers 3. Life Hazard Lookout <ol style="list-style-type: none"> a) A person assigned to safely observe a Life Hazard Zone <p>B. Incident driving</p> <ol style="list-style-type: none"> 1. Always drive defensively 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 2. All occupants will ALWAYS wear their seatbelts 3. Reduce speed to prevent rollovers and/or loss of control of your vehicle 4. Drive dangerous or blind curves and narrow roadways slowly and cautiously 5. Evaluate road surface and weather conditions 6. Use caution while driving in smoke 7. Utilize safe backing precautions 8. Be aware of load limits on bridges and roads <p>NOTE: Research and present lessons learned for hired vendor vehicle fatality incidents.</p> <p>C. Terrain and vegetation hazards</p> <ul style="list-style-type: none"> 1. Falling and rolling material creates a hazard of hitting personnel or equipment and spreading fire into an area that may threaten the position of personnel or equipment <p>D. Hazard tree safety</p> <ul style="list-style-type: none"> 1. Both dead snags and live green trees pose the most common risk on the fireline <ul style="list-style-type: none"> a) Constantly survey your work area for potential tree hazards 2. Environmental conditions <ul style="list-style-type: none"> a) Weakened trees or parts of trees are especially dangerous during periods of strong winds b) Diseased or bug kill areas c) Number and height of hazard trees d) Steep slopes e) Potential for trees to domino 3. Hazard tree indicators <ul style="list-style-type: none"> a) Trees burning for an extended period of time <ul style="list-style-type: none"> 1) Look for fire or smoke in top or branches b) Rotten and shallow root systems 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> c) Numerous downed trees d) Dead or broken tips and limbs overhead e) Accumulation of downed limbs f) Snags (absence of needles, bark, and limbs) g) Look for heavy lean or hung-up trees <ul style="list-style-type: none"> 1) Often referred to as "widow makers" <p>E. Rock and other rolling material hazards</p> <ol style="list-style-type: none"> 1. Personnel or equipment should not work directly above or below one another or in close intervals when working on steep slopes 2. Post a lookout to watch for falling or rolling materials <ul style="list-style-type: none"> a) Rocks and logs may have been dislodged or loosened by equipment b) Rocks or logs may no longer be supported by vegetation as it burns off c) One section of a log may burn free of the well anchored portion d) Unexpected weight shift during bucking operations 3. Any heavy material that may be supported by combustible material can become dislodged <ul style="list-style-type: none"> a) Old vehicles on a steep, brushy hillside b) Dwellings or other buildings built on wooden stilts or supports 4. Stay in communication and understand the warning signs and signals for falling or rolling materials <ul style="list-style-type: none"> a) Shout a warning if falling or rolling material is spotted <ol style="list-style-type: none"> 1) The standard warning for falling material such as trees, snags, or limbs, is to yell "TREE!" 2) The standard warning for any rolling material is to yell "ROCK!" 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> a) Immediately notify your fireline supervisor so they can arrange for appropriate mitigation and notification 2. Identify <ul style="list-style-type: none"> a) ALWAYS treat downed power lines as live <ul style="list-style-type: none"> 1) Until confirmed dead and grounded by utility company 2) Smoke may become charged and conduct electrical current 3. Isolate <ul style="list-style-type: none"> a) Post guards to isolate the area b) Don't go near or move downed power lines 4. Deny entry <ul style="list-style-type: none"> a) Keep personnel and yourself out of area b) Properly trained personnel should flag hazards 5. Working around power lines <ul style="list-style-type: none"> a) Minimize operations under power lines b) Metal fences can energize for a long distance c) Ground can be energized by downed electrical lines 6. Downed line on a vehicle <ul style="list-style-type: none"> a) Stay in your vehicle if possible b) If you must exit the vehicle, jump clear, don't hang on <ul style="list-style-type: none"> 1) Shuffle or hop to safety I. Hazardous materials <ul style="list-style-type: none"> 1. Encountered more and more frequently on wildland fires <ul style="list-style-type: none"> a) Your primary responsibility is for your safety and the safety of others 2. If you suspect a potential hazmat situation; immediately notify your supervisor so trained hazmat 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>responders can be brought into evaluate and abate the problem</p> <ol style="list-style-type: none"> 3. Stay up wind, uphill, and avoid breathing smoke 4. Isolate area and deny entry 5. Warn others in the immediate area 6. Can be industrial, agricultural, drug labs, explosives, ordnance, etc. <ol style="list-style-type: none"> a) Dump sites b) Storage areas of chemicals or ammunitions c) Ordnance: most likely found on military and former military sites, shooting ranges d) Building or vehicle components e) Illegal drug labs f) Radioactive materials g) Asbestos h) Fuels – gasoline, diesel, LPG, etc. <p>J. Insects and reptiles</p> <ol style="list-style-type: none"> 1. Snake habitat areas 2. Bee and hornet nests 3. Scorpions, ticks 4. Spiders <p>K. Thunderstorm hazards</p> <ol style="list-style-type: none"> 1. If you see lightning and hear thunder, take storm precautions <p>NOTE: Thunderstorm safety is on page 19 of the IRPG.</p> <p>L. Working around HEAVY equipment</p> <ol style="list-style-type: none"> 1. Stay at least 100 feet in front or 50 feet behind the equipment 2. In timber, distances should be increased to 2½ times the canopy height 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 3. No one but the operator should ride on the equipment 4. Never approach equipment until you have eye contact with the operator, the blade is lowered and the equipment is idled down 5. Avoid working below equipment where rolling material could jeopardize your safety 6. Working at night can increase the risk due to reduced visibility <ul style="list-style-type: none"> a) Use headlamp and/or glow sticks so the operator can see you 7. Establish visual and radio communications prior to engaging <ul style="list-style-type: none"> a) Equipment operators have difficulty seeing ground personnel; take responsibility for your safety and all those around you 8. Communicate all hazards to the operator <p>M. Aerial retardant and helibucket operations</p> <ul style="list-style-type: none"> 1. Personnel can be injured by the impact of retardant and/or water drops from aircraft <ul style="list-style-type: none"> a) Dislodge rocks and other heavy material subject to rolling b) Reduce traction for motorized equipment causing a skid or rollover c) Endanger footing causing slips and falls, especially while working with hand tools or hose d) If you are unable to clear out of the target area, take safety precautions <ul style="list-style-type: none"> 1) Secure all loose items 2) Hold hand tools away from body 3) Lie face down, with head toward oncoming aircraft and hard hat in place 	<p>What are some other types of fireline hazards?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 4) Grasp something firm to prevent being carried or rolled about by the dropped liquid e) Do not run unless escape route is assured f) Stay clear of dead snags, tops, and limbs in the drop area g) Working in an area covered by wet retardant or foam should be done with caution due to slippery surfaces <p>NOTE: Present a short story of an experience you may have had with fireline hazards. Discuss known or suspected hazards in your local area.</p> <p>III. STANDARD IDENTIFICATION OF LIFE HAZARD</p> <ul style="list-style-type: none"> A. Any hazard observed should be communicated to fireline supervisor and coworkers immediately B. Flagging the hazard <ul style="list-style-type: none"> 1. Preferred method <ul style="list-style-type: none"> a) Red and white barrier tape striped or chevroned that states "Life Hazards, Do Not Enter" 2. Next best method <ul style="list-style-type: none"> a) Fireline or police perimeter flagging that includes the words "Do Not Enter" or "Do Not Cross" 3. Acceptable method <ul style="list-style-type: none"> a) Flagging of any color, 1-3 inches wide with the words "Do Not Enter" or "Do Not Cross" b) Should be used as a last resort for flagging a life hazard area C. Configuration of flagging <ul style="list-style-type: none"> 1. Three horizontal strands (3 stripes) 2. Approximately 18 to 24 inches apart 3. Securely fixed to stationary supports 4. Capable of supporting the barrier flagging throughout the incident 5. Size of hazard zone 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 6. Sufficient flagging to provide complete isolation, distance and protection from the hazard 7. Minimum of 25-foot radius D. Illumination <ul style="list-style-type: none"> 1. Glow sticks attached to flagging 2. Avoid night work if visibility is a factor E. Other methods to identify hazards <ul style="list-style-type: none"> 1. Orange cones or delineators 2. Barriers 3. Flashing strobe lights F. Mitigating the hazard <ul style="list-style-type: none"> 1. Eliminate hazard if safe to do so <ul style="list-style-type: none"> a) Move rocks, logs b) Cover c) Make berms d) Fall trees, etc. 2. Isolate the area if possible (with assistance from Fireline Supervisor) <ul style="list-style-type: none"> a) Minimize number of personnel in danger area <ul style="list-style-type: none"> 1) Only required workers b) Shout warning as needed c) Anticipate escape routes d) Brief next shift e) Proceed around danger area, one person at a time f) Stay out of area until danger has past g) Watch your footing h) Be alert 3. Construct line to avoid hazard areas 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>IV. FIRELINE STRATEGIES</p> <ul style="list-style-type: none"> A. Strategy is the general plan or direction selected to accomplish incident objectives B. Size-up <ul style="list-style-type: none"> 1. The evaluation of the fire is to determine a course of action for suppression. 2. Will serve as a basis for actions and resources required to handle an incident 3. Is a continuous evaluation throughout the life of the incident 4. Your situational awareness should include <ul style="list-style-type: none"> a) Current and expected fire behavior <ul style="list-style-type: none"> 1) Topography 2) Fuels 3) Current and expected weather b) Roads or natural barriers c) Fire history - what has the fire done? <ul style="list-style-type: none"> 1) How far has the fire traveled between the start time and the time you arrived at scene? 2) What will burn 3) Where is the fire heading C. Fireline safety considerations <ul style="list-style-type: none"> 1. Know who your fireline supervisor is 2. Are the plan and incident objectives clear and understood? 3. Initiate risk management process <ul style="list-style-type: none"> a) 10 standard firefighting orders b) 18 “watch out” situations c) LCES D. Strategies <ul style="list-style-type: none"> 1. Direct attack 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>a) Involves working directly on the fires edge</p> <p>NOTE: Refer to IRPG page 9.</p> <p>2. Indirect attack</p> <p>a) The control line is a considerable distance away from the fires edge.</p> <p>NOTE: Refer to IRPG page 10.</p> <p>3. Combination attack</p> <p>a) Is a combination of both direct and indirect attack</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

The ability to recognize fireline hazards and communicate those hazards to supervisors and adjoining forces is one of the keys to safe and effective firefighting strategies. All fires have potential to create adverse conditions and you must continually monitor and update your situational awareness.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #8 Entrapment Avoidance

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the hazards to avoid entrapment situations

Standard: To the instructors satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Internet connection

References:

- "6 Minutes to Safety", NIFC website
<http://www.nifc.gov/sixminutes>
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 7-19 and 40-43
- Glossary of Wildland Fire Terminology, NWCG, PMS-205, 2008 Edition
- Incident Response Pocket Guide, NWCG, NFES 1077, Current Edition, Inside Front Cover and Back Cover

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>NOTE: Access internet and introduce students to the "6 Minutes to Safety" website.</p> <p>I. INTRODUCTION</p> <p>A. Entrapment avoidance is described in the NWCG glossary as "A process used to improve the safety of personnel on the fireline, which emphasizes tools and tactics available to prevent being trapped in a burnover situation"</p> <ol style="list-style-type: none"> 1. Encompasses decision-making through <ol style="list-style-type: none"> a) Risk management b) Application of LCES c) Decision points d) Recognition of escape routes and safety zones B. The best practice would be to attempt to recognize entrapment situations and avoid them versus risking the situation of becoming trapped <p>NOTE: Choose a scenario from the website and discuss the situation and critical issues.</p> <p>C. Critical safety measures</p> <ol style="list-style-type: none"> 1. Follow the risk management process <p>NOTE: Refer to page 1 in the IRPG.</p> <ol style="list-style-type: none"> a) Situation awareness b) Hazard assessment c) Hazard control d) Decision point e) evaluate 2. Trigger points <ol style="list-style-type: none"> a) Geographic point/s or a specific points and time where alternative actions are warranted. Timely implementation of these actions is critical to firefighter safety. 3. Common denominators of fire behavior on tragedy fires 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>NOTE: Refer to page 4 of the IRPG.</p> <ol style="list-style-type: none"> a) There are four major common denominators of fire behavior on fatal and near-fatal fires b) Such fires often occur <ol style="list-style-type: none"> 1) On relatively small fires or deceptively quiet areas of large fires. 2) In relatively light fuels, such as grass, herbs, and light brush. 3) When there is an unexpected shift in wind direction or in wind speed. 4) When fire responds to topographic conditions and runs uphill. c) Alignment of topography and wind during the burning period should always be considered a trigger point to re-evaluate strategy and tactics <ol style="list-style-type: none"> 1) Examples <ul style="list-style-type: none"> • Critical RH levels • Fire reaches an identified geographical point • Winds shift or increase to critical levels <ol style="list-style-type: none"> 4. Follow the 10 standard firefighting orders 5. Recognize the 18 "watch out" situations 6. Know, understand, and re-evaluate LCES often 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Whatever your fireline assignment, you must be prepared to identify the dangers of the job. These websites and course material will assist the student with being response ready and improve situational awareness.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #9 Lessons Learned And Hot Topics

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will discuss recent lessons learned and hot topics related to fireline safety

Standard: To the instructors satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Internet connection

References:

- www.nifc.gov/wfstar/index.htm
- <http://www.wildfirelessons.net/Home.aspx>
- <http://wildfirelessons.net/uploads/6mfs/home.html>

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)

Curiosity (arouse)

Interest (create)

Desire (stimulate)

Begin

Association

Students

Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>NOTE: Reference the above websites prior to the class and choose the most appropriate lessons learned and hot topics for class presentation and discussion.</p> <p>Use related illustrations from the websites of near-miss incidents, injuries, or fatalities, to discuss incidents relevant to types of hired equipment and personnel working on or near the fireline.</p> <p>“A lesson is truly learned when we modify our behavior to reflect what we now know.”</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Whatever your fireline assignment, you must be prepared to identify the dangers of the job. These websites assist the student with being response ready and improve situational awareness.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #10 Radio Procedures

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the basic parts and use of a radio

Standard: To the instructors satisfaction according to the lesson plan

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices

References:

- CAL FIRE Academy ECC Handbook, Section 1800, Page 34
- Essentials of Firefighting, IFSTA, Fifth Edition, Pages 943-945
- Field Operations Guide ICS 420-1, FIRESCOPE, July 2007, Pages A-1 through A-5
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 106-108, 152, and Appendix A, Pages 42-44

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <ul style="list-style-type: none"> A. Vendors are required to understand and operate their hand held or mobile radio while assigned to an incident. Understanding the use of the radio, the communications plan and the frequencies assigned, helps vendors to safely accomplish the incident objectives B. It is extremely important that all incident personnel observe strict radio procedures and discipline in the use of all communication equipment C. Communications is essential to firefighter safety and is a key component to LCES <p>II. CONTRACT RADIO REQUIREMENTS</p> <ul style="list-style-type: none"> A. Federal <ul style="list-style-type: none"> 1. Water tenders and engines must provide radios B. State <ul style="list-style-type: none"> 1. Water tenders and dozers must provide radios C. Although you may not have to provide a radio as part of your agreement, you may be assigned a radio at the incident <ul style="list-style-type: none"> 1. All vendors should refer to their contract requirements. D. Radios must be programmable E. Radios must be narrow band capable and operate in the 150 MHz to 174 MHz range <ul style="list-style-type: none"> 1. Federal government mandates that VHF frequencies convert to narrow-band frequencies 2. Inspect your radio to ensure that it is capable of and programmed for narrow-band operations 3. Remove any radios from service that are not capable of narrow-band 4. Any noncompliant radio equipment used on narrow-band channels may present a life safety hazard for all users 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>III. FREQUENCY USAGE</p> <ul style="list-style-type: none">A. Simplex channels (TAC Channel)<ul style="list-style-type: none">1. Single frequency for both transmit and receive2. "Local" and "Scene of Action" (SOA)B. Repeater channels (Command)<ul style="list-style-type: none">1. Pair of frequencies (1 transmit and 1 receive)2. Repeater has to receive and transmit at the same time <p>IV. REPEATER SYSTEM</p> <ul style="list-style-type: none">A. Frequencies<ul style="list-style-type: none">1. Users need to be authorized to use the channels2. Users need to be authorized to use frequencies3. Contractors are authorized by virtue of their assignment to the fire4. Fire frequencies are assigned by dispatch or Communications Unit Leader for a particular fire5. Do not use frequencies that are not assigned to youB. Incident Communications Plan (ICS-205)<ul style="list-style-type: none">1. The Communications Unit Leader provides the Communications Plan (Comm Plan) found in the Incident Action Plan (IAP) and specifies the frequencies to be used on the incident <p>NOTE: You will refer to ICS-205 during Topic 12.</p> <ul style="list-style-type: none">2. All radios must be programmed the same3. Denotes channels and frequencies assigned to Command, Tactical, and Air4. Assigns tactical frequencies to be used by resources on each division or group <p>V. BASIC RADIO TERMINOLOGY</p> <ul style="list-style-type: none">A. Handheld radioB. Mobile radioC. Base station	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> D. Scanner E. Antenna F. Microphone G. On-off switch H. Volume control I. Squelch control J. Tone Control K. Mode Control L. Batteries M. Clamshell N. Clear text <p>VI. RADIO OPERATIONS</p> <ul style="list-style-type: none"> A. Turn on the radio <ul style="list-style-type: none"> 1. Mobile <ul style="list-style-type: none"> a) Ensure your vehicle is running if you will be using the radio for more than a few minutes 2. Handheld <ul style="list-style-type: none"> a) Carry an extra clamshell and a supply of fresh batteries 3. Let the radio “boot up” <ul style="list-style-type: none"> a) New radios are “computers” that emit radio waves B. The mysteries of squelch <ul style="list-style-type: none"> 1. The squelch circuitry in a radio is designed to keep the radio quiet unless there is a signal present 2. It does this several ways <ul style="list-style-type: none"> a) Noise or <i>carrier squelch</i> detects any signal that is strong enough to turn on the audio b) Tone or <i>digital squelch</i> detects any signal that has the correct properties to turn on the audio 3. Adjusting noise or carrier squelch <ul style="list-style-type: none"> a) Squelch levels are user adjustable. 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> b) Exact method of setting will vary with the make and model of radio being used <ul style="list-style-type: none"> 1) Some radios do not have user adjustable squelch c) The squelch should be set just tight enough to block the unwanted noise d) If problems are encountered with setting the squelch, please check with a Radio Technician <p>VII. RADIO PROCEDURES</p> <ul style="list-style-type: none"> A. There are specific procedures while transmitting on radios to maintain appropriate radio traffic <ul style="list-style-type: none"> 1. Remember, everyone is listening B. Listen first <ul style="list-style-type: none"> 1. You don't want to "cover" someone C. Transmitting <ul style="list-style-type: none"> 1. Key the microphone and pause for approximately 2 seconds <ul style="list-style-type: none"> a) The hesitation allows radios to link properly 2. Speak clearly and hold the microphone within a couple of inches of your mouth 3. Talk across the microphone rather than directly at it 4. Speak in a normal voice – DON'T SHOUT 5. Keep conversations brief and to the point 6. Use clear text only <ul style="list-style-type: none"> a) No "10" or "12" codes b) Never use profanity or obscene language 7. Don't use first names or jargon, speak professionally 8. Acknowledge each transmission 9. End with your identifier or call sign D. Restrict radio communications to official business E. Use only authorized frequencies and only within authorized areas 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>VIII. PRIORITIES IN RADIO TRAFFIC</p> <ul style="list-style-type: none">A. Emergency traffic always has priority over routine trafficB. Routine traffic should cease until the termination of the emergencyC. Order of radio priority<ul style="list-style-type: none">1. Life or death emergency<ul style="list-style-type: none">a) Injuriesb) Life hazardsc) Entrapmentsd) Aircraft in troublee) Medical aid or the well being of any person2. First report of a new emergency3. Initial attack dispatch to a new emergency4. Routine trafficD. Transmitting and receiving calls on the radio<ul style="list-style-type: none">1. Transmitting a message<ul style="list-style-type: none">a) Listen for other trafficb) Key up, pause, talk2. Receiving a message<ul style="list-style-type: none">a) If you are using "Scan", turn it off and switch to the correct channelb) Answer the calling station with your call sign3. Example of transmission<ul style="list-style-type: none">a) You are Water Tender E-43 and are calling Division B<ul style="list-style-type: none">1) <u>First transmission:</u> "Division B, Water Tender E-43 on TAC 3"2) <u>First reply:</u> "Division B"3) <u>Second transmission:</u> "I've completed filling the engines at the end of the Smith Road, what are your wishes?"	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>4) <u>Second reply</u>: “Copy, report to DP-13 for further assignments”</p> <p>5) <u>End transmission</u>: “Water Tender E-43 Copy”</p> <p>IX. TROUBLESHOOTING AND MAINTENANCE</p> <p>A. Always refer to your owner's manual</p> <p>B. Troubleshooting</p> <ol style="list-style-type: none"> 1. If the radio is not powering up at all, check for <ol style="list-style-type: none"> a) Dead batteries b) Blown fuses c) Bad, broken, or loose wires d) Loose or missing antenna 2. Radio not transmitting <ol style="list-style-type: none"> a) Make sure you are out of “Scan” and on the correct frequency b) Loose or cross threaded antenna connection c) Loose microphone connection d) Verify that you are on the correct frequency/channel e) Move to higher ground 3. Report problems to your incident supervisor <p>C. Maintenance</p> <ol style="list-style-type: none"> 1. Keep the radio clean, dry and out of extreme heat 2. Start your shift with new batteries 3. Avoid placing the radio in a location where it could be easily lost or stolen 4. Update your frequencies as needed 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

To achieve effective communications, you must know and understand your radio and the communication procedures for each incident. Your safety and the safety of others may depend on this knowledge.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #11 Working with California Inmate Fire Crews

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will recognize the rules and regulations for working with inmate fire crews in California

Standard: To the instructors satisfaction according to Information Sheet 11-1

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- Information Sheet 11-1: Basic Regulations Related to Association with Prison Inmates

References:

- CAL FIRE CDC Camp Operations Handbook 6400
- California Code of Regulations, Title 15, Sections 3400, 3401, and 3415
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages A-28 and A-29

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <ul style="list-style-type: none"> A. It has become a standard practice to utilize inmate fire crews on many types of incidents B. Intermingling of civilians and inmates generally only occurs during meals, but you may be asked to work on the fireline with inmate/wards to complete an assignment C. Failure to conform to rules, policies, procedures, and laws may unnecessarily place you and/or the inmate in a position where disciplinary or legal action will be taken <p>II. WORKING RELATIONS WITH INMATES/WARDS</p> <ul style="list-style-type: none"> A. Inmate supervisors <ul style="list-style-type: none"> 1. Inmate/wards should always be under direct supervision of a fire captain or custodial officer 2. Always accompanied by a custodial agency when assigned to an incident <ul style="list-style-type: none"> a) The custodial agency is the agency with supervision responsibilities while the inmates/wards are performing their assigned tasks B. Fireline exposure <ul style="list-style-type: none"> 1. Handline construction 2. Hose lay support 3. Mop-up and patrol C. Base and/or Camp <ul style="list-style-type: none"> 1. Feeding 2. Supplies 3. Other facilities D. Fire crew interaction <ul style="list-style-type: none"> 1. Be polite 2. Do not be overly friendly 3. Do not share personal information about yourself 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>4. If an inmate or ward behaves inappropriately in your presence, tell your supervisor immediately</p> <ul style="list-style-type: none"> a) Improper comments b) Touching c) Asking for favors <p>E. Basic regulation violations related to association with inmates and wards</p> <p>NOTE: Distribute Information Sheet 11-1: Basic Regulations Related to Association with Prison Inmates.</p> <ol style="list-style-type: none"> 1. Only employees with proper training will directly supervise inmate crews 2. Do not allow any person not associated with the crew or current work project to associate with wards or inmates or interfere with ward or inmate activity 3. Do not assist any ward or inmate to escape <ul style="list-style-type: none"> a) Assisting an escape is a felony b) All other violations are at the discretion of legal interpretation 4. Do not allow or assist any ward or inmate to communicate in any manner with outsiders 5. Do not allow any ward or inmate to use a telephone or other communication instrument which would permit contact with anyone 6. Do not accept from, deliver to, a ward or inmate any letter, message, or package 7. Do not permit former wards, inmates, or persons of disreputable character to associate with wards or inmates 8. Do not give or promise to give, or loan to, or trade or barter, and do not accept from any ward or inmate, or former ward or inmate money, gifts, or personal services 9. Do not, in any way, contact or communicate with families or known associates of wards or inmates for any purpose 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>10. Do not strike or lay hands on a ward or inmate unless it is in self-defense, or unless it is necessary to prevent serious injury to person or property</p> <p>11. No personal firearms are permitted on an incident</p> <p>12. Guns, or any object that may be obviously classified as a weapon, or any alcoholic beverage must not be brought within the camp limits or to an area where wards or inmates may be present</p> <p>13. No drugs or narcotics may be brought within a work area where wards or inmates may be present</p> <p>14. No drinking of intoxicating beverages while in the presence of a ward or inmate or while on duty/an incident</p> <p>15. No employee shall report for duty when it is evident that he/she has recently been drinking</p> <p>16. Gambling, in any form, is prohibited in the presence of or with any inmate</p> <p>17. No tobacco, in any form, will be provided to wards or inmates</p> <p>18. No tobacco use of any kind while in the presence of a ward or inmate</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

You may be required to work with inmate and ward fire crews on emergency incidents. Your actions must conform to the guidelines established by the appropriate custodial agency. Failure to conform to rules, policies, procedures, and laws may unnecessarily place you and/or the inmate in a position where disciplinary or legal action will be taken.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Information Sheet 11-1: Basic Regulations Related to Association with Prison Inmates

Persons who work with or near inmates of institutions and camps may occasionally become involved with legal difficulties for violating various rules and regulations concerning associations with inmates and wards. To avoid these legal difficulties the following basic regulations are provided:

1. Only employees with proper training will directly supervise inmate crews.
2. Do not allow any person not associated with the crew or current work project to associate with wards or inmates or interfere with ward or inmate activity.
3. Do not assist any ward or inmate to escape (felony).
4. Do not allow or assist any ward or inmate to communicate in any manner with outsiders.
5. Do not allow any ward or inmate to use a telephone or other communication instrument which would permit contact with anyone.
6. Do not accept from, deliver to, a ward or inmate any letter, message, or package.
7. Do not permit former wards, inmates, or persons of disreputable character to associate with wards or inmates.
8. Do not give or promise to give, or loan to, or trade or barter, and do not accept from any ward or inmate, or former ward or inmate money, gifts, or personal services.
9. Do not, in any way, contact or communicate with families or known associates of wards or inmates for any purpose.
10. No employee shall strike or lay hands on a ward or inmate unless it is in self-defense, or unless it is necessary to prevent serious injury to person or property.
11. No personal firearms are permitted on an incident.
12. Guns, or any object that may be obviously classified as a weapon, or any alcoholic beverage must not be brought within the camp limits or to an area where wards or inmates may be present.
13. No drugs or narcotics may be brought within a work area where wards or inmates may be present.
14. No drinking of intoxicating beverages while in the presence of a ward or inmate or while on duty/an incident.
15. No employee shall report for duty when it is evident that he/she has recently been drinking.
16. Gambling, in any form, is prohibited in the presence of or with any inmate.
17. No tobacco, in any form, will be provided to wards or inmates.
18. No tobacco use of any kind while in the presence of a ward or inmate.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #12 Incident Organization

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will recognize the expectations of vendors at an incident including dispatch, checking in, briefings, and checking out

Standard: To the instructors satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices

References:

- CAL FIRE Policy
<http://cdfweb/Pubs/Issuance/7700/7761.pdf>
- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Page 323
- Glossary of Wildland Fire Terminology, NWCG, 2008 Edition, Pages 44 and 145
- I-100 Introduction to the Incident Command System, NWCG
<http://training.nwcg.gov/courses.htm>

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <p>A. The selection of the most appropriate resource assigned to fill a request will be based on timeframes, closest resource, as well as specific mission requirements and equipment capabilities</p> <p>B. Contractors must not respond to emergency incidents without being requested</p> <ol style="list-style-type: none"> 1. Safety concern 2. Communication concern 3. You may not be entitled to payment <p>II. DISPATCH/RESPONSE/MOBILIZATION</p> <p>A. If you have been selected for hire, you will be contacted by the appropriate dispatch office</p> <p>B. You should receive the following information</p> <ol style="list-style-type: none"> 1. Type of equipment requested <ol style="list-style-type: none"> a) One or two operators 2. Type of assignment 3. Reporting location and contact person 4. Specific location of the fire 5. Dispatch contact number 6. Reporting date and time 7. Communication instructions 8. Incident/Fire name 9. Resource order number/Incident number 10. Request number 11. Travel information <p>C. Be prepared to answer the following questions from dispatch</p> <ol style="list-style-type: none"> 1. Estimated time of departure (ETD) 2. Estimated time of arrival (ETA) 3. Rest Over Night (RON) justification; if applicable 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>4. Contact/cell number for operator(s)</p> <p>5. With multiple pieces of equipment responding, the vendor will advise dispatch which piece will be assigned to each request numbers</p> <p>D. A contractor must make notification of any change in their status or ability to meet the assigned report time</p> <p>1. Notification will be to the contact number provided at the time of dispatch</p> <p>III. CHECK-IN PROCEDURES</p> <p>A. Incident arrival</p> <p>1. There may be several locations for incident check-in</p> <p>a) Each location has slightly different procedures</p> <p>b) Ensures proper accountability and safety</p> <p>2. Check-In directly to the line</p> <p>a) Contact the IC or fireline supervisor</p> <p>b) Obtain instructions/briefing prior to assignment</p> <p>3. Incident Command Post (ICP) check-in</p> <p>a) Contact the IC or fireline supervisor</p> <p>b) Is generally located at the base but during initial attack phase can be found offsite in a vehicle, trailer, etc.</p> <p>c) Obtain instructions/briefing prior to assignment</p> <p>d) If you initially checked-in at an <u>offsite</u> ICP, you must officially check-in at Base once the base is established</p> <p>4. Base check-in</p> <p>a) Contains the primary logistics and administrative functions and is designated by the incident name</p> <p>b) Report to Check-In, within the Plans Section where you will receive further instruction</p> <p>c) Your assignment may be to report to the line or wait for a briefing</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ol style="list-style-type: none"> 1. Every IAP is slightly different in both the specific pages included in the IAP and the order those pages could be arranged 2. Incident Objectives – ICS-202 <ol style="list-style-type: none"> a) Lists the objectives of the incident so all resources are clear on the Incident Commander's or Unified Command's intent 3. Organization Assignment List – ICS-203 <ol style="list-style-type: none"> a) Names of the individuals assigned to positions on the incident b) Helps you to understand the lay-out of the incident and who the supervisors will be 4. Division Assignment List – ICS-204 <ol style="list-style-type: none"> a) Separate ICS-204 for each Branch, Division and/or Group b) This page is very important since it provides information <u>specific</u> to that Division/Group <ol style="list-style-type: none"> 1) Supervisor 2) All resources assigned 3) Control objectives 4) Special information (i.e., hazards, water sources, special instructions, drop points) 5) Radio frequencies 5. Incident Radio Communications Plan – ICS-205 <ol style="list-style-type: none"> a) Lists all assigned radio frequencies for the incident b) For quick reference; see ICS-204 for the radio frequencies utilized on your Division/Group assignment 6. Medical Plan – ICS-206 <ol style="list-style-type: none"> a) Lists medical facilities b) The plan to handle fireline injuries 7. Additional pages to the IAP 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> a) Safety Message b) Maps <p>E. End of shift</p> <ol style="list-style-type: none"> 1. See your Division or Group Supervisor to complete your shift ticket 2. Vendors are NOT to complete their own shift tickets 3. Do not leave your assignment until you receive a copy of the shift ticket from your fireline supervisor <ul style="list-style-type: none"> a) The shift ticket must be signed by both the supervisor and the vendor b) The shift ticket must list the names of all operators c) The fireline or camp supervisor will submit the shift tickets to Finance d) The shift ticket will be audited for correctness e) Payments will not be processed without shift tickets 4. Ask your Division or Group Supervisor for a vendor evaluation <p>V. CHECK-OUT PROCEDURES</p> <p>A. Demob</p> <ol style="list-style-type: none"> 1. Once your services are no longer needed on the incident you will become a surplus resource where your demob process will begin <ul style="list-style-type: none"> a) Report to Demob for departure time <ol style="list-style-type: none"> 1) You are required to check out expeditiously 2) If you are not timely in your departure it may reflect in your paperwork b) Receive your ICS-221; Demobilization Checklist <ol style="list-style-type: none"> 1) Start your process with Finance in order to begin the payment process 2) Report to each section marked and complete their check out process 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none">3) You will return to Finance to complete your payment process prior to returning to Demob for release2. Once you have shown that you have checked out with each section, you will be released from the incident	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

Once you have been selected for hire you are required to follow the appropriate dispatch, check in, and check out procedures on an incident. Dispatch relays the information vital to your response, and proper check in and demob are essential to resource accountability, safety and ensures correct tracking and payment.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #13 Wildland Personal Protective Equipment

Time Frame: 0:30

Level of Instruction: Level I

Behavioral Objective:

Condition: Given an oral evaluation

Behavior: The student will identify the components, use, care, and maintenance of wildland personal protective equipment (PPE)

Standard: To the instructor's satisfaction

Materials Needed:

- Conference board/pads with markers/erasers
- Appropriate audiovisual training aids and devices
- One set of wildland PPE for display

References:

- CAL FIRE Hiring and Utilization Guide, Sections 7761.4.3 and 7761.4.4
http://cdfdata.fire.ca.gov/incidents/incidents_hiredequipment
- Interagency Standards for Fire and Fire Aviation Operations, 2010 Edition, Chapter 7, pages 8-12
- Standards of Personal Protective Equipment, USFS
http://www.nifc.gov/policies/red_book/2010/Ch07Safety.pdf

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>I. INTRODUCTION</p> <ul style="list-style-type: none"> A. All wildland personal protective equipment (PPE) shall meet OSHA, CAL FIRE, USFS specification B. Wear wildland PPE during any suppression activity <ul style="list-style-type: none"> 1. Ask permission before unzipping or removing any PPE 2. Follow your supervisor's directions regarding loosening of PPE during mop-up operations <ul style="list-style-type: none"> a) Supervisors are aware and trained in recognizing and treating heat-related injuries and illnesses C. Proper fit and adjustment for each individual <p>II. WILDLAND PPE CHECKLIST</p> <ul style="list-style-type: none"> A. Safety helmet with chin strap (hard hat) B. Goggles C. Gloves D. Fire resistant (Nomex) shroud E. Fire resistant (Nomex) shirt F. Fire resistant (Nomex) pants G. 100% cotton t-shirt H. Lug-soled work boots with 8" high top I. Work pants J. Fire shelter for fireline assignments K. Web gear L. Canteen of water <ul style="list-style-type: none"> 1. 1 gallon minimum <p>III. SAFETY</p> <ul style="list-style-type: none"> A. Clothing is FIRE RESISTANT not FIREPROOF B. Nomex clothing <ul style="list-style-type: none"> 1. It is the recommended fire resistive material 	<p>What other safety items need to be considered?</p>



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>C. PPE is most effective if it is properly worn</p> <ol style="list-style-type: none"> 1. Air between skin and undergarment is a critical part of insulation 2. Air between undergarments and Nomex (shirt and/or pants) is also critical to proper insulation <p>D. Safety helmet with chin strap (hard hat)</p> <ol style="list-style-type: none"> 1. Adjust headband and head strap 2. It is the responsibility of the equipment operator to ensure that his or her equipment is properly adjusted <p>E. Goggles</p> <ol style="list-style-type: none"> 1. Pull rubber strap to secure, but keep comfortable 2. Be sure lens are clean 3. Glasses are not a substitute for goggles <p>F. Gloves</p> <ol style="list-style-type: none"> 1. Protect from <ol style="list-style-type: none"> a) Mechanical damage or trauma b) Heat c) Gloves made of fire-resistant leather and long Nomex material wrist gauntlet <p>G. Fire resistant (Nomex) shroud</p> <ol style="list-style-type: none"> 1. Immediately available 2. Must be fastened in front of face when on the fireline 3. Wear down during suppression activities 4. Do not roll the shroud up between the suspension system and helmet <ol style="list-style-type: none"> a) This defeats the separation principle that provides for maximum cushioning of impact on shell b) Also cuts down on the ability to release heat from around the head 5. Bandannas cannot be worn as a substitute for fire resistant shrouds <p>H. Nomex shirt</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1. Sleeves rolled down and fastened 2. Worn outside the pants <ul style="list-style-type: none"> a) Do not tuck them in 3. Zipped-up I. Nomex pants <ul style="list-style-type: none"> 1. Must fit properly over work pants J. Cotton clothing <ul style="list-style-type: none"> 1. Cotton T-shirts are worn under Nomex shirts at all times 2. Fire resistant clothing offers no insulation 3. Cotton T-shirts and other undergarments are crucial in reducing exposure to radiant heat burns K. Work pants <ul style="list-style-type: none"> 1. Recommend 100% cotton, do not wear a blended fabric such as polyester L. Fire shelter, web gear (if worn), and canteen should be worn outside Nomex shirt <ul style="list-style-type: none"> 1. Fire shelter must be readily accessible at all times M. When on the fireline, all components of the wildland PPE must be with the equipment operator even when not in use N. Physical fitness and training exercises while wearing PPE will help the body acclimate to the added body heat caused by fire resistant fabrics <ul style="list-style-type: none"> 1. Because of the added body heat caused by these fabrics, it is important that electrolytes and body fluids be replaced 2. Proper hydration is critical 	<p>Why is a cotton T-shirt required?</p>
<p>IV. CARE AND MAINTENANCE</p> <ul style="list-style-type: none"> A. Proper laundering of clothing 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<ul style="list-style-type: none"> 1. As specified on manufacturer’s care label 2. Wash separate from other types of clothing 3. If there is no legible label, launder as indicated below <ul style="list-style-type: none"> a) No starch or bleach b) Machine wash, warm c) Tumble dry on low heat B. Safety helmet <ul style="list-style-type: none"> 1. Cleanliness 2. Headband 3. Straps 4. Do not clean helmet and components with solvents 5. Use soap and water 6. No modifications C. Goggles <ul style="list-style-type: none"> 1. Keep lens clean and avoid scratches 2. Clean with water and non -abrasive cloth D. Replace worn-out or damaged personal protective equipment <ul style="list-style-type: none"> 1. Free of tears and loose stitching 2. Burn marks and burn holes 3. Soiled with petroleum products (i.e. diesel, oil, gasoline) V. STORAGE <ul style="list-style-type: none"> A. Store Nomex in your vehicle and only wear when on the fireline B. Store clean Nomex in a dry, well ventilated storage area when not in use C. Do not store dirty or soiled Nomex <ul style="list-style-type: none"> 1. Soiled Nomex should be left on equipment until it can be cleaned 	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PRESENTATION	APPLICATION
<p>VI. LOST ITEMS</p> <ul style="list-style-type: none">A. PPE is normally not allowed to be checked out at an incidentB. If you are authorized to check-out PPE from Supply, you are responsible for all items issued to you<ul style="list-style-type: none">1. You will be charged for any item not returned	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Summary:

The proper care and use of your wildland PPE is vital to your performance as a hired vendor. Using all of your safety clothing is mandatory and noncompliance will not be tolerated.

Evaluation:

The student will complete the oral evaluation at a time determined by the instructor.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Topic: #14 New Generation Fire Shelter And Deployment

Time Frame: 1:30

Level of Instruction: Level II

Behavioral Objective:

Condition: Given a training fire shelter, simulated fireline conditions, and appropriate space

Behavior: The student will deploy a new generation fire shelter using the standing drop-down method

Standard: Completing all operations proficiently within 30 seconds

Materials Needed:

- Appropriate audiovisual training aids and devices
- Training fire shelter
- Individual Activity 14-1: Deploying A New Generation Fire Shelter Using The Standing Drop-down Method
- Performance Exam Grading Sheet
- Information Sheet 14-1: Notes From Crews That Had To Deploy Shelters

References:

- Fireline Handbook, NWCG, PMS 410-1, 2004 Edition, Pages 15-17 and 40-44
- The New Generation Fire Shelter, NWCG, NFES-2710 <http://www.nwcg.gov/pms/pubs/newshelt72.pdf>
- The New Generation Fire Shelter DVD, NWCG, NFES 2712, 2003 Edition

Preparation:

Each instructor must develop a motivational statement on why the student should learn the upcoming material. The purpose is to establish relevancy of the lesson to the audience. The ACID BASE acronym can be used to help develop student motivation.

Attention (attract)	Begin
Curiosity (arouse)	Association
Interest (create)	Students
Desire (stimulate)	Experience

Cite examples or use related illustrations of near-miss incidents, injuries, or fatalities. Write this section "from the heart." Be creative! Have fun with it or be serious, but remember the goal is to stimulate student motivation.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

OPERATIONS	KEY POINTS
<p>NOTE: Play "The New Generation Fire Shelter" DVD. Ask the students if they have any questions or points they need clarified. Take them to the area where you will begin testing. Explain and demonstrate the operations and key points listed below.</p> <p>SKILLS PERFORMED ON THE FIRELINE</p> <ol style="list-style-type: none"> 1. Select deployment area 2. Clear deployment area 3. Set all hand tools or equipment aside 	<ol style="list-style-type: none"> 1a. Away from rolling material or snags b. Away from chimneys, draws, steep terrain c. Largest available clearing d. Lightest fuel clearing e. Possible burned over area 2a. Utilizing existing clearings b. Minimum 4'x 8' area if time allows c. Down to mineral soil d. As large as time permits e. Firing out if conditions warrant f. Digging toe holds on slopes of 75% or more 3a. Minimum of 30 feet away b. Side hill c. Down wind



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

OPERATIONS	KEY POINTS
<p>SKILLS TEST BEGINS</p>	
<p>4. Open and remove shelter from carrying case</p>	<p>4a. Pulling up and out on yellow/orange pull-strap</p>
<p>5. Open plastic protective case</p>	<p>5a. Holding onto yellow/orange pull-strap with one hand</p> <p>b. Pulling either red pull-ring down to the bottom of the plastic and extending to top of the other side</p> <p>c. Tearing the plastic case</p>
<p>6. Remove shelter from the plastic protective case</p>	<p>6a. Completely</p>
<p>7. Unfold and extend the shelter</p>	<p>7a. To full length</p> <p>b. Grasping the shake handles</p> <p>c. Without releasing the shelter</p>
<p>8. Shake out the shelter tri-fold</p>	<p>8a. Facing the shelter</p> <p>b. Open to full width</p> <p>c. Without releasing the shelter</p> <p>d. Until sides, ends, and peak are full extended</p>
<p>9. Step into the shelter</p>	<p>9a. Stepping over lower hold down straps</p> <p>b. Turning to face out of the opening</p>
<p>10. Position body in the shelter</p>	<p>10a. Feet shoulder width apart</p> <p>b. Feet anchoring lower end of shelter</p> <p>c. Feet behind hold down straps</p> <p>d. Body behind upper hold down straps</p> <p>e. Facing away from on-coming fire</p>
<p>11. Crouch down to pull head and upper body into opening if necessary</p>	



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

OPERATIONS	KEY POINTS
12. Check that entire body is inside the shelter	
13. Drop to your knees on the ground	
14. Drop forward	14a. Laying flat on your stomach
15. Anchor shelter	15a. Feet toward the oncoming fire <ul style="list-style-type: none"> b. Push out the shelter with one hand for maintaining maximum airspace in the shelter c. Anchor inside flaps with head, arms and legs d. Full perimeter ground to shelter flap seal
16. Maintain position	16a. Allowing instructor to test the sealed areas of the shelter



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Application:

The student will show the ability to follow these simple steps to safely enter the fire shelter. The student should practice until they are able to complete the steps in this lesson plan

Evaluation:

The student will properly deploy the fire shelter within 30 seconds.

Assignment:

Review course material regularly to prepare yourself for an incident.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Individual Activity 14-1: Deploying a New Generation Fire Shelter Using the Standing Drop-down Method

Time Frame: 0:15 per group

- Materials Needed:**
- One performance examination per student for review
 - One performance examination grading sheet per five students
 - One training fire shelter per student
 - One stop watch
 - One pen

Introduction: This activity provides the students the opportunity to deploy a fire shelter using the standing drop-down method under simulated fireline conditions.

- Directions:**
1. Distribute the performance exam to each student.
 2. Review the scoring criteria with the entire class.
 - Test begins with the evaluator states "Begin."
 3. Divide the class into appropriate sized groups.
 - Student/skills evaluator ratio is a maximum of 5:1.
 4. Give each student in the group the materials they will need for the skill test.
 5. Ask if there are any questions.
 6. The test will start on your direction.



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PERFORMANCE EXAM DIRECTIONS:

Deploying A New Generation Fire Shelter Using The Standing Drop-down Method

Student Directions:

1. The test will start when the instructor gives the command.
 2. You have 30 seconds to complete the skill.
 3. **Critical Operations** or Safety Violations are pass/fail and are marked with an **asterisk (*)**. If you omit or improperly perform a critical operation, you will fail the skill test.
 4. You can repeat the skill test until you pass it by not permitting a fail on a Critical Operation or a Safety Violation, and completing within the 30-second time limit.
-

Evaluator Directions:

1. Assign each student a number, list name below
 2. Follow each step the student performs and if the action is performed correctly, there is no need to check the box. **NO marks are a positive report of successful completion.**
 2. If an operation is omitted or performed improperly, check the box. Document the improper action in the comments.
 3. If an operation with an asterisk (*) is omitted or performed improperly, the student fails and will need to retest.
 4. The evaluator may terminate the test for safety reasons if, in his or her judgment, continuation of the examination would jeopardize the safety of personnel or equipment.
 5. Time begins when you state the direction of the on-coming fire and say, "Begin."
 6. Student must not release or drop shelter at any time during the test or it will be a "Fail."
-



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

PERFORMANCE EXAM GRADING SHEET:
Deploying A New Generation Fire Shelter Using The Standing Drop-down Method

	OPERATION	*	1	2	3	4	5
1.	Open and remove shelter from the carrying case						
2.	Open the plastic protective case and remove shelter						
3.	Unfold the shelter accordion folds and extend to full length						
4.	Unfold the shelter tri-fold and open to full width						
5.	Open shelter by fully extending sides, ends, and peak						
6.	Enter the shelter and make sure your entire body is in the shelter						
7.	Turn and face out of the opening						
8.	Drop to the ground and lie flat on your stomach						
9.	Anchor shelter	*					
10.	Create maximum airspace inside the shelter	*					
11.	Create a full perimeter ground-to-shelter seal	*					
12.	Feet must be toward the simulated on-coming fire	*					
13.	Student never releases or drops shelter during deployment	*					

Student's Name	Evaluator's Comments	Time	Pass/Fail
#1			Pass/Fail
#2			Pass/Fail
#3			Pass/Fail
#4			Pass/Fail
#5			Pass/Fail

Evaluator's Name: _____

Signature: _____

Date: _____



FIRELINE SAFETY AWARENESS FOR HIRED VENDORS

Information Sheet 14-1: Notes from Crews That Had To Deploy Shelters

- Fire shelters must be carried where they can be easily reached and removed without taking off your pack. Shelters should never be carried inside a pack. Practice removal with all your gear on the same way it will be carried on the fireline. Practice removing your shelter while running or walking fast.
- Once an entrapment becomes likely, protecting your airway should dominate all your decisions while attempting to escape or deploy shelters.
- Always attempt escape where success is likely.
- When escape is questionable, your first priority is to take your fire shelter out of the carrying case and remove the plastic bag by pulling the pull-tab. Carry the folded shelter in your hands ready for quick use. While trying to escape it can be partially opened to use as a heat shield against radiant heat but not for hot gases or a flame front which would leave your airways unprotected. When speed is essential for escape get rid of all your tools, saws, packs, etc., to travel as light as possible.
- It is critical, whether trying to escape or when finding and improving deployment sites, to leave sufficient time to get under your shelter before hot gases or the flame front arrives. It is more important to be on the ground before the hot gases and flame front arrive than to be in your shelter. Finish deployment on the ground as rapidly as possible, if you only are partially deployed, protect your head and airway with your shelter as a top priority.
- Prior to arrival of the flame front, the air is often very turbulent. This results in longer deployment times and the necessity to hold your shelter tightly, so it is not blown away or damaged.
- Movement of people after they deploy, but prior to adequate dissipation of heat and smoke hazards, is contributing to the number of fatalities and serious injuries. Once you deploy stay under the shelter. **No matter how bad it is under the shelter the heat can be 10-20 times worse outside the shelter.**
- If trapped without a shelter, lie face down with arms curled around your head no matter how bad your back is being burned. This is your best chance to survive. It is always hotter above ground level than at ground level, so keep your nose and body pressed to the ground.
- If you are under the fire shelter and the inner layer of glass cloth starts to separate from the aluminum foil, the glass cloth may burn you, but it will cool off rapidly. If this occurs, it is critical that you remain under the shelter and keep movement to a minimum since the foil can now be torn easily. Even if the foil breaks open and flames enter, it is still worse outside the shelter. When conditions are so extreme that the fire shelter starts to fail, severe injury and death are very likely if you leave the shelter. **You can still survive if you stay under the shelter.**