

Engine Company Standard Operating Guide Fire Academy

14

Section II - Engine Company Operations



4" Hose Operations

2 1/2" Hose Operations

1 3/4" Hose Operations

Supplemental Hose Lays

SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE



TRAINING & EDUCATION DIVISION

ENGINE STANDARD OPERATING GUIDE

CSEFM FFI/FFII 2019 VERSION

JANUARY 2021

TABLE OF CONTENTS

(*) = Core Academy Skill

Supply Lines (Hydrant to Rig)	3
*Drill #1: 4” Forward Lay	4
Drill #2: 4” Reverse Lay	5
Drill #3: 4” Hand Lay to Hydrant	6
Drill #4: 4” Spot the Pump	7
Drill #5: 4” Supply to Truck (Unspecified)	8
Drill #6: 4” Supply to Portable Monitor	9
Drill #7: 2 1/2” Hand Lay to Hydrant (Unspecified)	10
Drill #8: 2 1/2” Supply Line to FDC (Unspecified)	11
Attack Line Deployment (Rig to Door)	12
*Drill #9: 1 3/4” Grab and Go (Unobstructed/Direct)	13
*Drill #10: 1 3/4” Flip Method (Obstructed/Indirect)	14
*Drill #11- 2 1/2” Attack Line (Bulk/Accordion Bed)	15
*Drill #12: 2 1/2” Attack Line (150’ Quick Attack)	16
Drill #13: Vertical Stretch	17
Drill #14- Attack Lines Up a Ladder	18
Water Application (Seat of the Fire)	19
*Drill #15: 1 3/4” Hose Control	20
*Drill #16: 2 1/2” Hose Control	21
Compound Evolutions	22
*Drill #17: 1 3/4” Hose Management	23
*Drill #18: Interior Attack	25
*Drill #19: 2 1/2” Extended (Condo Lay)	26
*Drill #20: 2 1/2” Compound Evolution	28
*Drill #21: 1 3/4” Hose Pack Ops	29
Additional State Fire Training Skills	30
Drill #22: Vehicle Fire	31
Drill #23: Progressive Hose Lay	32
Drill #24: Replace a Burst Section of Hose	33
Drill #25: Build a Hose Roll	33
Drill #26: Clean and Maintain Hose, Mark Defective Hose	34

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

Drill #27: Deploy Portable Water Tank34
Drill #28: Operate a Portable Master Stream35
Drill #29: Flow Water From a Ladder35
Drill #30: Load Supply Hose36
Drill #31- Flammable Gas Cylinder36
State Fire Training FFII Skills37
Appendix A- Glossary38
Appendix B- Reference Images39
Appendix C: Engine Drill Equipment Guide.....42

SECTION 1

Supply Lines (Hydrant to Rig)

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #1: 4" Forward Lay			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	3-15B	:45	Forward Lay

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #4		
Engineer will stop passed the hydrant.		
<u>Exit procedures.</u>		
Secure the 4" supply line and hydrant wrench.		
Wrap the hose around the hydrant.		
Place foot on the cross point of the hose and signal the engineer.		
Observe the hose as it pays out of the bed.		
Remove your foot from the cross point of the hose only after first coupling hits the ground, the airbrakes set, or catastrophic event occurs (i.e. the coupling gets caught in the bed).		
Remove the hydrant cap and increaser, place on the ground in contact with the hydrant.		
Unwrap the hose from the hydrant and make the connection to the 4" port.		
Wait for the signal for water from the engineer.		
At the signal for water, acknowledge by signaling and announce, "water coming."		
Observe the water as it travels down the line at the pace of a fast walk.		
Once water is at the engine, open hydrant valve completely and turn valve back 1/4 turn leaving the hydrant wrench pointing down.		
Grab the increaser, follow the supply line to the engine and identify any leaks and address any kinks or hazards.		
Secure increaser on apparatus		
Visually check intake pressure and announce to the Engineer "You have a 4" supply line from that hydrant to Engine X. Intake Pressure is XX PSI. There are/are no leaks, kinks and hazards. What is my next assignment?"		
Firefighter #3 will complete connction at the pump.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #2: 4" Reverse Lay			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	4" Reverse Lay

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Exit procedures.		
Don SCBA and secure 4" double male at the anchor location		
Place knee on hose facing the engine and announce, " <i>engineer, take it away</i> ".		
Remove your knee from the hose only if the air brake has set, the first coupling is on the ground, or there is a catastrophic event. Attach the 4" double male to the 4" female coupling.		
At the apparatus intake, perform intake checks by announcing and checking for " <i>Gasket, swivel, thread</i> ". Include verbalizing " <i>gate valve shut, bleeder valve cracked</i> " (if supplying a truck).		
Spanner tighten all connections (if supplying a truck).		
Announce " <i>engineer, the line is ready for water</i> ".		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #3: 4" Hand Lay to Hydrant			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
<u>Exit procedures.</u>		
Secure 4" supply line from the hose bed.		
Secure hydrant wrench.		
Advise Engineer to break the line when you tell them.		
"Clear traffic" and move towards the designated hydrant.		
Arrive at the hydrant and announce, "Engineer, break my line."		
Place the female 4" coupling on the ground.		
Loosen the 4" hydrant cap and secure the hydrant wrench on the valve.		
Remove the increaser from the 4" hose and place it on the ground in contact with the hydrant.		
Physically check the 4" female coupling and announce "gasket, swivel, thread."		
Connect the 4" female coupling onto the 4" hydrant port.		
Clear the hose of all kinks, flake hose appropriately.		
Return to the hydrant and wait for the signal to charge the hydrant.		
At the signal for water, acknowledge by signaling and announce, "water coming."		
Observe the water as it travels down the line at the pace of a fast walk.		
Once water is at the engine, open hydrant valve completely and turn valve back 1/4 turn leaving the hydrant wrench pointing down.		
Grab the increaser, follow the supply line to the engine and identify any leaks and address any kinks or hazards.		
Secure increaser on apparatus		
Visually check intake pressure and announce to the Engineer "You have a 4" supply line from that hydrant to Engine X. Intake Pressure is XX PSI. There are/are no leaks, kinks and hazards. What is my next assignment?"		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #4: 4" Spot the Pump			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
#4 Firefighter		
Engineer will spot the apparatus at the hydrant.		
<u>Exit procedures.</u>		
Secure 25' roll of 4" hose and hydrant wrench.		
Set the 25' roll of 4" on the ground.		
Give the male coupling to the Engineer (if available)		
Walk the female coupling to the hydrant.		
Loosen the 4" hydrant cap and secure the hydrant wrench on the correct valve.		
Remove the hydrant cap and place on the ground in contact with the hydrant		
Physically check for obstruction in 4" hydrant port.		
Physically check female coupling with fingers and announce "gasket, swivel, thread."		
Attach the female coupling to the hydrant.		
Flake out the hose.		
Return to the hydrant and wait for the call for water from the Engineer.		
At the call for water, acknowledge by signaling appropriately and replying, "Water coming" and slowly charge the line.		
Once water is at the engine, open hydrant valve completely and turn valve back 1/4 turn leaving the hydrant wrench pointing down.		
Walk the supply line to the engine, identify leaks and address kinks and hazards.		
Visually check intake pressure and announce to the Engineer "You have a 4" supply line from that hydrant to Engine X. Intake Pressure is XX PSI. There are/are no leaks, kinks or hazards. What is my next assignment?"		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #5: 4" Supply to Truck (Unspecified)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
<u>Exit procedures.</u>		
Secure 4" supply line from the hose bed.		
Carry supply line to the safe side of apparatus away from traffic approx. 15 ft.		
Remove the increaser and secure supply line under the tailboard.		
Place the increaser in the appropriate compartment and remove the 4" double male.		
Collect the 4" supply line from under the tailboard and attach the double male to the female coupling.		
Remind the Engineer to " <i>break my line when I tell you</i> "		
Announce " <i>clear traffic, clear hose</i> " and proceed towards the truck's intake.		
Once at apparatus (Truck 4" intake) announce, " <i>Engineer break my line.</i> "		
At the Truck intake, check for and announce, " <i>gasket, swivel, thread, gate valve shut, bleeder valve cracked.</i> "		
Connect 4" supply line to the intake spanner tight and announce, " <i>Spanner tight.</i> "		
Flake out the hose.		
Inform Truck Engineer " <i>Engineer your Truck is ready for water.</i> "		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #6: 4" Supply to Portable Monitor			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Secure the 4" double male from the compartment and announce, "securing 4" double male".		
Secure 4" supply line from the hose bed.		
Remove increaser and place on hose bed.		
Physically check the 4" female coupling and announce "gasket, swivel, thread."		
Attach the 4" double male to the female coupling.		
Pull 4" supply line with double male coupling out of hose bed approximately 3'.		
Secure the appropriate loop of 4" supply line from hose bed (usually 3 rd loop over from supply line) and pull out of the hose bed approximately 3'.		
Place increaser in cabinet		
From the rear of the apparatus, secure 4" double male over one shoulder and loop of hose over the other		
Advise "Engineer break line when I tell you."		
Walk the hose to the portable monitor and set the 4" double male coupling down.		
Walk the loop past the portable monitor and announce, "Engineer break my line".		
Loop the 4" supply line around the portable monitor on the ground.		
Check for "Gasket, swivel, threads" on the monitor coupling and attach the 4" supply line the monitor and hand tighten.		
Flake out all the hose in a big loop around monitor.		
Set the anchor.		
Secure the 4" supply line to the portable monitor using the hose straps.		
Complete checks "couplings tight, nozzle in full upright position, locked, pins set, <u>low</u> GPM full fog, spanner tight".		
Spanner tighten the 4" supply line and portable monitor to the double male coupling.		
Call out "water to portable monitor".		
While wearing eye protection, secure the monitor pins to the ground with the sledgehammer.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #7: 2 1/2" Hand Lay to Hydrant (Unspecified)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
<u>Exit procedures.</u>		
Place the gated wye and 2 1/2" hose on shoulder while on the tail board.		
Walk the hose to a safe location behind the apparatus and break the gated wye.		
Place gated wye in Engineer's compartment.		
Secure the 2 1/2" double female and hydrant wrench.		
Advise Engineer to "break my line when I tell you."		
Pull hose to hydrant.		
Advise Engineer to "break my line."		
Remove hydrant cap and connect hose to hydrant		
Flake hose		
Charge line slowly when Engineer calls for water, announce "water coming."		
Open hydrant fully, back off 1/4 turn and leave wrench straight up and down		
Advance up the line and check for leaks, kinks and hazards.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #8: 2 1/2" Supply Line to FDC (Unspecified)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	N/A	N/A	Supply the FDC

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure 2 1/2" hose from the bulk bed onto the ground.		
Pull the hose to a safe distance off the tail board.		
Remove the gated wye from the hose line.		
Secure gated wye in the engineer's compartment and retrieve 2 1/2" shut off butt.		
Secure additional 2 1/2" hose on the ground next to the first length pulled off and attach 2 1/2" shut off butt to the end of the hose on the ground.		
Pick up the 2 1/2 shut off butt and hose, load it on shoulder and pull to FDC.		
Announce "Engineer, break my line when I tell you to"		
Once at the FDC, announce "Engineer break my line".		
Remove the FDC caps and place on the ground in contact with the wall.		
Check and announce "Gasket, swivel, threads, clapper valve, no obstruction".		
Connect 2 1/2" shut off butt and hose to the furthest/most difficult FDC connection first.		
Spanner tighten female coupling on the FDC and announce, "spanner tight". Spanner tighten male hose coupling attached to shut off butt and announce, "spanner tight".		
Check the shutoff butt making sure it is in the off position.		
Signal and announce "water to the FDC" to Engineer when ready.		
Announce "Partner, are you ready for water to the standpipe?"		
Wait for confirmation from partner, then open shutoff butt announcing, "water to standpipe".		
Follow the supply line, identify leaks and address kinks and hazards and announce to the Engineer "You have a 2 1/2" supply line to the FDC. There are/are no leaks, kinks or hazards. What is my next assignment?"		

SECTION 2

Attack Line Deployment (Rig to Door)

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #9: 1 3/4" Grab and Go (Unobstructed/Direct)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	3-10E	1:30	Grab and Go

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure SCBA.		
Secure selected length of 1 3/4" hose.		
Load the nozzle on left shoulder.		
Place right arm through lower loop (stab) and grab onto upper loop (grab).		
Announce "clear traffic, clear hose" as the hose is pulled out of the bed.		
Pull the hose out until the slack tightens.		
Drop the first loop announcing, "Tight. Hose bed clear".		
Continue to extend the line to the last coupling for working line.		
Flake out the hose and place 50' coupling near nozzle.		
Complete nozzle checks and calls out "butt shut".		
Signal and call for water to the Engineer announcing, "Water to Mattydale #__".		
PPT.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #10: 1 3/4" Flip Method (Obstructed/Indirect)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	3-10E	2:15	Flip Method

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure SCBA.		
Secure appropriate length of 1 3/4" hose.		
Flip Method : Pull the stack of hose partially out from the bed and twist it to flip upside down and load the onto shoulder.		
Pull the remainder of the hose out of the bed by looking back and announce, "Hose bed clear".		
Announce "Clear hose. Clear traffic" and head towards objective.		
Climb the stairs as hose pays out from the top of the load (see Stairway vs Stairwell below)		
Announce the floors as you approach them "1, 2, 3, etc."		
Upon reaching the top floor utilize Accordion Forward or V-Split (see glossary) to flake excess hose before placing the nozzle against the wall.		
Tie off hose to a stationary object with a cow hitch around the hose and clove hitch around the anchor with an overhand safety knot.		
Flake out the hose and place 50' coupling near nozzle.		
Complete nozzle checks and calls out "butt shut".		
Signal and call for water to the Engineer announcing, "Water to Mattydale #___".		
PPT		

Stairway Stretch		
Deploy hose from shoulder and lay along stairs as you ascend.		
Keep hose to the outside wall when making turns to avoid kinks in the line when charged.		
Stairwell Stretch		
Ascend stairs while allowing hose to feed straight up through the well hole.		
Hole must be wide enough to allow hose couplings to easily pass through without getting hung up (can use a gloved fist to measure).		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #11- 2 1/2" Attack Line (Bulk/Accordion Bed)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	3-10E	2:30	2 1/2" Attack Line

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure SCBA.		
Pull enough hose from bed to remove 2 1/2" gated wye.		
Secure nozzle and shut off butt from compartment and attach to male coupling.		
Grab folds and remove required amount of hose- count couplings as they hit the ground.		
Fan stacks of hose out starting towards objective and work back towards rig.		
Specified length-		
Count couplings as they hit the ground until desired length reached.		
Break coupling at desired length and leave female under tailboard.		
Unspecified length-		
Announce "Engineer break my line when I tell you."		
Once at objective announce "Engineer, break my line."		
Advance nozzle and 50' coupling to objective.		
Utilize Accordion Forward or V-Split hose deployment (depending on space).		
Flake out the hose and place 50' coupling near nozzle.		
Complete nozzle checks and call out "butt shut".		
Signal and call for water to the Engineer announcing, "Water to the 2 1/2".		
PPT.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #12: 2 1/2" Attack Line (150' Quick Attack)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	3-10E	2:30	2 1/2" Quick Attack

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure SCBA.		
Unobstructed		
Pull hose from bed and lay on the ground.		
Fan stacks of hose out starting towards objective and work back towards rig.		
Advance nozzle and 50' coupling to objective.		
Obstructed		
Utilize Flip Method (Drill #10) to get hose on shoulder.		
Utilize Accordion Forward or V-Split (see glossary) hose deployment depending on space.		
Utilize Accordion Forward or V-Split hose deployment (depending on space).		
Flake out the hose and place 50' coupling near nozzle.		
Complete nozzle checks and call out "butt shut".		
Signal and call for water to the Engineer announcing, "Water to the 2 1/2".		
PPT.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #13: Vertical Stretch			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10A	N/A	Vertical Stretch

PERFORMANCE MEASURES:	PASS	FAIL
Exit procedures.		
Secure SCBA.		
Female Coupling Down		
Shoulder load (Flip) hose line and break it at the whip (partner/Engineer may assist)		
Ascend designated stairway and lower female coupling to partner on ground		
Partner will complete connection to rig/supply line		
Tie off remaining hose line on pump side of coupling		
Drop Bag Method		
Ascend to location and lower rope from drop bag to ground.		
Partner will stretch dry attack line and tie off nozzle.		
Pull nozzle and working line up.		
Tie off remaining hose line on pump side of coupling.		
Flake out the hose and place 50' coupling near nozzle.		
Complete nozzle checks and calls out "butt shut".		
Signal and call for water to the Engineer announcing, "Water to Mattydale #__".		
PPT.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #14- Attack Lines Up a Ladder			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
<u>Exit procedures.</u>		
Secure SCBA.		
Deploy hose to appropriate location utilizing Grab and Go Method (Drill #9).		
Drop tag at base of ladder or at POE.		
Tell partner to “ <i>foot my ladder</i> ”		
Dry Line (not charged)		
Loop nozzle underneath arm and up over opposite shoulder.		
Confirm shut-off butt is closed, ascend ladder.		
Once on top, sound the sill/floor with boot and announce, “ <i>Sill safe. Floor safe.</i> ”		
Secure nozzle and pull up a minimum of 50’ working line over the sill/railing.		
Tie off remaining hose line on pump side of the coupling.		
Flake out the hose and place 50’ coupling near nozzle.		
Complete nozzle checks and calls out “ <i>butt shut</i> ”.		
Signal and call for water to the Engineer announcing, “ <i>Water to Mattydale #__</i> ”.		
<u>PPT</u>		
Charged Line		
Complete nozzle checks and call out “ <i>butt shut</i> ”.		
Signal and call for water to the Engineer announcing, “ <i>Water to Mattydale #__</i> ”.		
<u>PPT</u>		
Use utility webbing to secure the nozzle with a cow hitch, half-hitch, half-hitch.		
Place the webbing over shoulder.		
Announce “ <i>partner foot my ladder</i> ”		
Sling webbing off shoulder onto the top ladder beam.		
Sound the sill/floor with boot and announce, “ <i>Sill safe. Floor safe.</i> ”		
Secure nozzle under boot and hoist 50’ of working line over the sill/railing.		
Tie off remaining hose line on pump side of the coupling.		

SECTION 3

Water Application (Seat of the Fire)

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #15: 1 3/4" Hose Control			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10C	1:00	1 3/4" Playlist

PERFORMANCE MEASURES:	PASS	FAIL
<u>Exit procedures.</u>		
Secure SCBA.		
Deploy hose to appropriate location utilizing <u>Grab and Go Method</u> (Drill #9).		
Interior Operations (150GPM/straight stream)		
Open nozzle and flow water in the <u>Clamp Method</u> (see Appendix B).		
Transition into <u>Comella Method</u> (see Appendix B).		
Transition into <u>Hip Grip Method</u> (see Appendix B).		
Demonstrate <u>Hit and Move</u>		
With partner back up, open nozzle in the Clamp Method flowing high to low.		
Shut down line and continue advance.		
Demonstrate <u>Making a Push</u>		
With partner back up, open line in Hip Grip Method and advance into fire room while continuously flowing water.		
Shut down line and prepare for Standing Hose Control		
Exterior Operations- <u>Standing Hose Control</u> (full GPM/full fog)		
Adjust nozzle settings to full GPM/full fog		
Lock the charged hose against sternum with working line arranged into an S-curve.		
Slowly open the nozzle in full GPM/full fog.		
Adjust stream pattern to straight stream.		
Hit targets as directed, then flow water for 1 minute.		
Recite nozzle GPM settings.		
Change stream back to full fog and shut down line.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #16: 2 1/2" Hose Control			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10C	1:00	<u>2 1/2" Playlist</u>

PERFORMANCE MEASURES:	PASS	FAIL
<u>Exit procedures.</u>		
Secure SCBA.		
Deploy hose to appropriate location utilizing 2 1/2" Attack Line (Drill #11, 12).		
Interior operations (full GPM/straight stream)		
Entry Procedures (Mask up, click in, tag out, glove up).		
Flow water in the <u>Clamp Method</u> (see Appendix B).		
Request partner back-up and transition into <u>Comella Method</u> (see Appendix B).		
Request partner back-up and transition into <u>Hip Grip Method</u> (see Appendix B).		
Demonstrate <u>Hit and Move</u>		
With partner back up, open nozzle in the Clamp Method flowing high to low.		
Shut down line and continue advance.		
Demonstrate <u>Making a Push</u>		
With partner back up, open line in Hip Grip Method and advance into fire room while continuously flowing water.		
Shut down line and prepare for Standing Hose Control.		
Exterior Operations- <u>Standing Hose Control w/ Webbing</u> (full GPM/full fog)		
Adjust nozzle settings to full GPM/full fog.		
Measure utility strap and apply to hose with a cow-hitch.		
Loop strap around outside shoulder and open nozzle.		
Ensure partner is in position for back-up.		
Adjust stream pattern to straight stream.		
Hit targets as directed, then flow water for 1 minute.		
Recite nozzle GPM settings.		
Change stream back to full fog and shut down line.		
Demonstrate back-up position.		

SECTION 4

Compound Evolutions

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #17: 1 3/4" Hose Management			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10D	N/A	1 3/4" Playlist

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Exit procedures.		
Secure SCBA.		
Deploy hose to appropriate location utilizing the Flip or Grab and Go Method.		
Entry Procedures (Mask up, click in, tag out, glove up).		
If operating <i>without</i> partner:		
At first corner, place nozzle in the opposite direction of travel and secure with foot.		
Pull hose until 50' coupling is inside the POE.		
Confirm 150GPM/straight stream.		
Advance hose utilizing Clamp Slide/Comella Crawl.		
Demonstrate Hit and Move		
With partner back up, open nozzle in the Clamp Method flowing high to low.		
Shut down line and continue advance.		
Demonstrate Making a Push		
With partner back up, open line in Hip Grip Method and advance into fire room while continuously flowing water.		
Perform remaining skills from 1 3/4" Hose Control (Drill #15).		

Firefighter #4		
Exit procedure.		
Secure SCBA.		
Secure forcible entry equipment (irons).		
Entry Procedures (Mask up, click in, tag out, glove up).		
Advance hose hand over hand into building (at least 50').		
Demonstrate Straight Stick Method		
Advance forward with hose directly behind partner.		
Demonstrate Bus Driver Method		
While stationary, shuffle hands to move hose around corner.		
Demonstrate Taking a Bight		
Bring loop of extra hose up to partner.		
Demonstrate Loading a Corner		
Off-load hose opposite direction of travel to bypass corner (friction point).		
Bump up to partner when directed.		
Assist partner making a Push.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #18: Interior Attack			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6, FF2- 2-2	3-3	6:00	Interior Attack

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Exit procedures.		
Secure SCBA.		
Deploy hose to appropriate location utilizing the Flip or Grab and Go Method.		
Perform Transitional Attack.		
Entry Procedures (Mask up, click in, tag out, glove up).		
Protect partner as they open door.		
Perform Hit and Move		
Advance hose utilizing Clamp Slide/Comella Crawl.		
Make a Push into fire room (when indicated).		
Knock down fire (high to low attack).		
Check for extension.		
Perform radio report (PPN) to IC.		

Firefighter #4		
Exit procedures.		
Secure SCBA.		
Secure irons, box light and TIC.		
Address forcible entry.		
Control flow path.		
Identify 4 L's (Life, Location, Layout, Lift).		
Entry procedures (mask up, click in, tag out, glove up).		
Open door using 3/5 count.		
Allow FF #3 to make entry with hose line.		
Chock door open.		
Moves hose into building appropriately -1 3/4" Hose Management (Drill #17)		
Assist partner making a Push		
Conduct primary search off hose line.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #19: 2 1/2" Extended (Condo Lay)			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 2-9, 2-10	3-2, 3-3	15:00	2 1/2" Playlist

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Exit procedures.		
Secure SCBA.		
Secure the 2 1/2" line with gated wye for unspecified supply line.		
Announce "Engineer, break my line when I tell you"		
Advance the 2 1/2" line to a safe area near the fire/point of entry		
Announce "Engineer, break my line"		
Make the proper checks, announce "both gates shut."		
Signal and call for water, announce "Engineer, water to the 2 1/2."		
Check for and address any kinks.		
Work with partner to attach Hose Pack A.		
Perform nozzle checks.		
Announce, "Partner, charge the hose pack."		
Perform PPT.		
Entry procedures (mask up, click in, tag out, glove up).		
Advance hose into building.		
Perform Interior Attack .		
Advance to seat of the fire, advise partner to bump up.		
Knock down fire (high to low attack).		
Check for extension.		
Perform radio report (PPN) to IC/Division.		
Assist partner with victim rescue by leading/guiding out of IDLH (stay on hose line).		
Perform radio report (PPN) to IC/Division once outside.		

Firefighter #4		
Exit procedures.		
Secure SCBA.		
Secure irons, TIC, box light and Hose Pack A		
Address forcible entry.		
Control flow path.		
Identify 4 L's (Life, Location, Layout, Lift).		
Attach Hose Pack A to gated wye.		
Charge the 1 3/4" line safely when advised by partner.		
Tie off gated wye in open position after charging the 1 3/4" line.		
Entry procedures (mask up, click in, tag out, glove up).		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

Open door using 3/5 count.		
Allow FF #3 to make entry with hose line.		
Chock door open.		
Move hose into building appropriately -1 3/4" Hose Management (Drill #17)		
Conduct primary search off hose line.		
If victim located:		
Notify partner and begin rescue.		
Remove victim >10' from IDLH.		
Assess ABC's and initiate CPR.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #20: 2 1/2" Compound Evolution			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 2-9, 2-10	3-2, 3-3	4:00	<u>2 1/2" Playlist</u>

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
<u>Exit procedures.</u>		
Perform <u>Forward Lay</u> (Drill #1).		
Secure SCBA.		
Deploy <u>150' 2 1/2" Attack Line -Quick Attack</u> (Drill #12).		
Entry procedures (mask up, click in, tag out, glove up).		
Perform <u>2 1/2" Hose Control</u> (Drill #16) Interior Operations		
Adjust nozzle settings to full GPM/straight stream.		
Flow water in the <u>Clamp Method</u> (see Appendix B).		
Request partner back-up and transition into <u>Comella Method</u> .		
Request partner back-up and transition into <u>Hip Grip Method</u> .		
Request partner back-up and move hose 10' using <u>Clamp Slide/Comella Crawl/Heisman</u> .		
Remove mask and deploy <u>150' 2 1/2" Attack Line- Accordion/Bulk Bed</u> (Drill #11).		
Perform <u>2 1/2" Hose Control</u> (Drill #16) Exterior Operations- <u>Standing Hose Control</u>		
Adjust nozzle settings to full GPM/full fog.		
Measure utility strap and apply to hose with a cow-hitch.		
Loop strap around outside shoulder and open nozzle.		
Ensure partner is in position for back-up.		
Adjust stream pattern to straight stream.		
Hit targets as directed, then flow water for 1 minute.		
Recite nozzle GPM settings.		
Change stream back to full fog and shut down line.		
Demonstrate back-up position.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
*Drill #21: 1 3/4" Hose Pack Ops			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-12	3-10E	11:00	Hose Pack Ops

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Secure SCBA.		
Perform 2 1/2" Supply Line to FDC (Drill #8) <i>if not already completed.</i>		
Secure Hose Pack A, irons and proceed to FDC connection.		
Check and announce "Shutoff butts shut" at the FDC and ascend stairs calling out each floor.		
Check and announce "standpipe closed" at fire floor.		
Stage hose pack at half landing below fire floor and open straps.		
Open pack in a circle and stand in the middle		
Perform nozzle checks (150 GPM/straight stream)		
Announce "partner, water to Hose Pack A."		
Perform PPT.		
Entry procedures (mask up, click in, tag out, glove up).		
Door procedures.		
Advance hose line appropriately using Clamp Slide/Comella Crawl/Heisman (see Appendix B).		

Firefighter #4		
Exit procedures.		
Secure SCBA.		
Secure irons, TIC, and Hose Pack B.		
Checks supply line for leaks, kinks and hazards.		
Confirms with partner standpipe shut and charges FDC by opening shut off butts.		
Ascend stairs calling out each floor.		
Properly connect the gated wye to the standpipe (spanner tight).		
Properly connect Hose Pack A to the gated wye (spanner tight).		
Tie off gated wye in open position.		
Advance to entry point, fixing kinks along the way		
Entry procedures (mask up, click in, tag out, glove up).		
Door procedures.		
Move hose into building appropriately - 1 3/4" Hose Management (Drill #17)		
Advance up the line with Hose Pack B.		
Extend line by attaching Hose Pack B to Hose Pack A (remove 7/8" Slug Tip)		

SECTION 5

Additional State Fire Training Skills

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #22: Vehicle Fire			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 7-2, FF2- 3	3-7, 3-1	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Exit procedures.		
Secure SCBA.		
Deploy hose to appropriate location utilizing the Flip or Grab and Go Method .		
Perform PPT and set to 30-degree fog.		
Identify if vehicle is an alternative fuel vehicle.		
Approach the vehicle from the side or a 45-degree angle.		
Attack fire from uphill and upwind if possible.		
Protect exposures (if applicable).		
Adjust nozzle pattern for protection if needed.		
Overhaul the fire scene and preserve origin and cause indicators.		
Call for the line to be shut down, bleed line.		

Firefighter #4		
Exit procedure.		
Secure SCBA.		
Secure Irons.		
Identify if vehicle is an alternative fuel vehicle.		
Approach the vehicle from the side or a 45-degree angle.		
Check for victims in and around vehicle.		
Expose all hidden fire and open all vehicle compartments using proper tools and techniques.		
Overhaul the fire scene and preserve origin and cause indicators.		

Foam Application		
Secure foam container, foam wrench and foam eductor.		
Open foam container and place eductor inside.		
Connect eductor to 1 3/4" hose line.		
Adjust foam concentration.		
Signal and call for water to the Engineer announcing, "Water."		

Fire Extinguishers (FF1A-5-3 Skill Sheet- 3-16)		
Obtain the appropriate extinguisher for type of fire.		
Pull the pin and aim at base of fire.		
Squeeze trigger and sweep from side to side		
Sweep from side to side.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #23: Progressive Hose Lay			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 7-1	3-10D, 3-19	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Firefighter #3		
Secure wildland hose pack and tool.		
Bump up the crosslay and take the nozzle from partner.		
Advance the line and wet down the area before shutting line down and break nozzle off.		
Secure first bundle of hose from wildland hose pack.		
Secure the nozzle and attach to male coupling and call for water.		
Continue advancing the hose line until notified to stop by partner.		
Wet down the area then announce, “clamp.”		
Break off nozzle and shut off butt while partner connects next bundle of hose from the pack.		
Attach nozzle and shut off butt to male coupling and call for water.		
Continue advancing the hose in this manner until out of hose.		

Firefighter #4		
Deploy 200” cross lay utilizing the Flip or Grab and Go Method .		
Adjust GPM to lowest setting and advance hose.		
Take tool from partner and give them the nozzle.		
Call out “hose” when down to 10 ft. of charged line.		
Drop first section of hose from wild land pack and connect female coupling.		
When connection is made and partner is ready announce, “water coming” and charge line.		
Pull hose and call out ‘ten feet’ when down to 10 ft. of charged line.		
Announce “clamp” and apply clamp to charged line.		
Drop second section of hose from wild land pack and connect female coupling.		
When connection is made and partner is ready announce, “water coming” and remove clamp.		
Continue advancing the hose in this manner until out of hose.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #24: Replace a Burst Section of Hose			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 7-1	4-2A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE.		
Place hose clamp at least five feet behind the female coupling of damaged hose length.		
Apply hose clamp correctly.		
Direct team member to drain hose at nozzle.		
Remove damaged hose section.		
Replace damaged hose section of hose with new hose.		
Close nozzle.		
Release the clamp slowly and correctly to prevent water hammer.		

DESCRIPTION:			
Drill #25: Build a Hose Roll			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 7-1	4-2B	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE.		
Lay hose out straight and flat on clean surface.		
Roll hose (begin at male coupling if using single roll method).		
Continue rolling keeping edges aligned.		
Lay completed roll on ground.		
Pack any protruding coils down into roll with foot.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #26: Clean and Maintain Hose, Mark Defective Hose			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 7-1	4-2C	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE.		
Clean hose (coupling, swivels, male threads and length of hose).		
Rinse hose thoroughly with clean water.		
Inspect hose for any remaining grease, oil stains, frays, snags, or worn edges.		
Inspect coupling gaskets and replaces in necessary.		
Mark damaged areas if found. Places out of service and notifies CO.		
Roll and stores in service section.		

DESCRIPTION:			
Drill #27: Deploy Portable Water Tank			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 4-4	3-15A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE.		
Deploy Portable water tank.		
Check gaskets on hard suction hose for dirt, gravel or defects.		
Connect strainer to hose.		
Fasten rope to strainer or hard suction hose.		
Connect hard suction hose to apparatus.		
Use appropriate tools to ensure an airtight connection.		
Place hose and strainer into water source.		
Signal pump operator starts drafting procedure.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #28: Operate a Portable Master Stream			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-	3-8	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE.		
Assemble necessary tools, hose, appliance for set up.		
Place master stream device (monitor and base) in position with assistance.		
Secure device according to department guidelines.		
Perform 4" Supply Line to Portable Monitor (Drill #6)		
Set nozzle to desired elevation and adjusts nozzle pattern.		
Direct pump operator to charge the devise supply line.		
Demonstrate setting all device position and locks.		
Demonstrate direction of stream.		
Signal pump operator to shut down water supply.		

DESCRIPTION:			
Drill #29: Flow Water From a Ladder			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-12	3-10A	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Deploy 1 3/4" line using Flip or Grab and Go Method .		
Position on ladder for operation of nozzle.		
Place nozzle through rung of ladder, extending hose at least 1 foot in front of body.		
Tie off attack line using approved method.		
Open nozzle and flow water.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
Drill #30: Load Supply Hose			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A-5-4	3-10F	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Wear appropriate PPE (gloves).		
Inspect hose and couplings for damage.		
Place appropriate coupling in hose bed.		
Lay hose into bed for correct load type.		
Layer hose so couplings don't flip and get caught up.		
Attach appropriate fitting and secure hose bed straps.		

DESCRIPTION:			
Drill #31- Flammable Gas Cylinder			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FFII- 3	3-2	N/A	

PERFORMANCE MEASURES:	PASS	FAIL
Secure SCBA.		
Identify contents and safety zone prior to advancing.		
Advances toward fire with safe approach maintaining team integrity.		
Operates nozzle on 30-degree fog pattern.		
Applies fire stream without extinguishing flames (unless leak has been stopped).		
Operates valve to control gas flow.		
Retreats in controlled manner maintaining team integrity.		

**SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE**

DESCRIPTION:			
State Fire Training FFII Skills			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
Various	Various	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Fire Hose Annual Service Test- FFII Topic 5 Skill 5-5		
Organize an Incident Management System- FFII Topic 1 Skill 1-1		
Complete a Basic Incident Report- FFII Topic 2 Skill 2-1		
Perform a Fire Safety Survey- FFII Topic 5 Skill 5-1		
Present Fire Safety Information- FFII Topic 5 Skill 5-2		
Perform a Pre-Incident Survey FFII Topic 5 Skill 5-3		

Appendix A- Glossary

Dance Floor- Area from tailboard to approximately 6' directly behind apparatus, where couplings should **not** connected or broken.

Direct Pull- If angle from the tailboard to the target is LESS than 45° off tailboard.

Door Procedure- Size-up door, TIC door, click-in regulator, perform 3/5 count, sound the floor, announce “SDFD, can anyone hear me”, check and communicate the 4 L’s (Life, Layout, Location and Lift).

Entry Procedure- Entry procedures (mask up, click in, tag out, glove up).

Exit Procedure-At the command “Drop Off”, FF will exit the cab in proper PPE, assuring there is no traffic and announce, “Clear traffic.” They will exit the cab with three points of contact.

IDLH- Immediately Dangerous to Life or Health. Must drop accountability tag prior to entering an IDLH.

Indirect Pull- If angle from the tailboard to the target is GREATER than 45° off tailboard.

Nozzle Checks- Performed prior to setting nozzle down in hose bed. Check that the first coupling is *tight*, the shut off *butt* is *shut*, the second coupling is *tight*, ensure the nozzle is set to appropriate GPM/stream setting.

Obstructed Pull- objects in way of target. Hose bundle must be flipped on shoulder to navigate.

Penciling- Quick burst of water in straight stream pattern to the ceiling in order to get feedback from the fire. If water returns off the ceiling, that tells the nozzle person that temperatures might be safe to advance further. If no water returns, and/or extreme heat exists open the nozzle and aggressively cool the environment before advancing

POE- Point of Entry is the area where firefighters enter their work area or IDLH. This is the area you drop your accountability tag if an accountability officer is not available

PPN- Position, Progress and Needs is communicated back out to the IC via radio. Communicate your position in the structure, what progress you’ve made and what further needs you have in order to mitigate the incident

PPT- Pressure and Pattern Test is performed prior to making entry into IDLH with a charged attack line. It is done to remove air in the line, ensures there is enough pressure and helps to remove kinks as well. In a standing or clamp position, open the nozzle in full GPM and full fog. Then adjust GPM selector to flush. This ensure no debris clogs the line. Next adjust into 150GPM and straight stream to remove remaining air and kinks from the line. Leave the line open for 5 seconds to allow the engineer to set their hydraulic pressure. If kinks remain, open and close the nozzle rapidly in straight stream (cycle the line).

Specified Pull- Captain specifies length of hose to be pulled. Coupling is broken prior to advance.



Threshold- The transition from one interior room to another. Sound the floor with your lead foot.

Transitional Attack- Exterior straight stream operation to cool the fire compartment before transitioning into an interior attack. Position straight stream directly at the ceiling in a steady pattern, just beneath exterior opening.

Unspecified Pull- No length specified. Firefighter must request engineer/partner to break line.

Unobstructed Pull- Clear path to objective. Select easiest/preferred hose deployment method.

Appendix B- Reference Images

IMAGE #1: CLAMP METHOD	IMAGE #2: COMELLA METHOD
 <p style="text-align: center; font-size: 24pt; font-weight: bold;">Clamp Method</p>	 <p style="text-align: center; font-size: 48pt; font-weight: bold;">Comella</p>
IMAGE #3: HIP GRIP METHOD	IMAGE #4: STANDING HOSE CONTROL

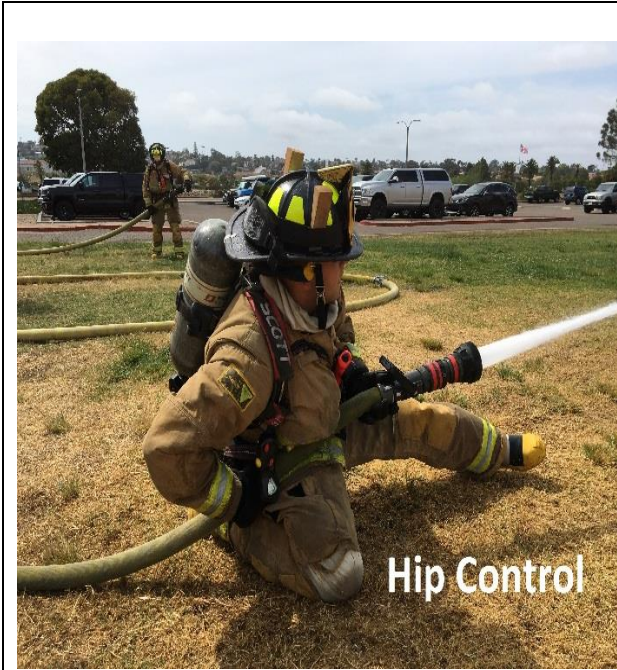


IMAGE #5: HOSE LOADING #1

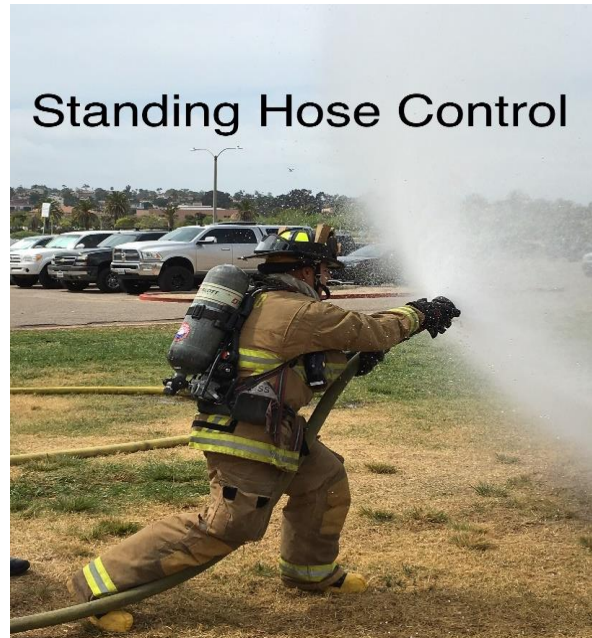
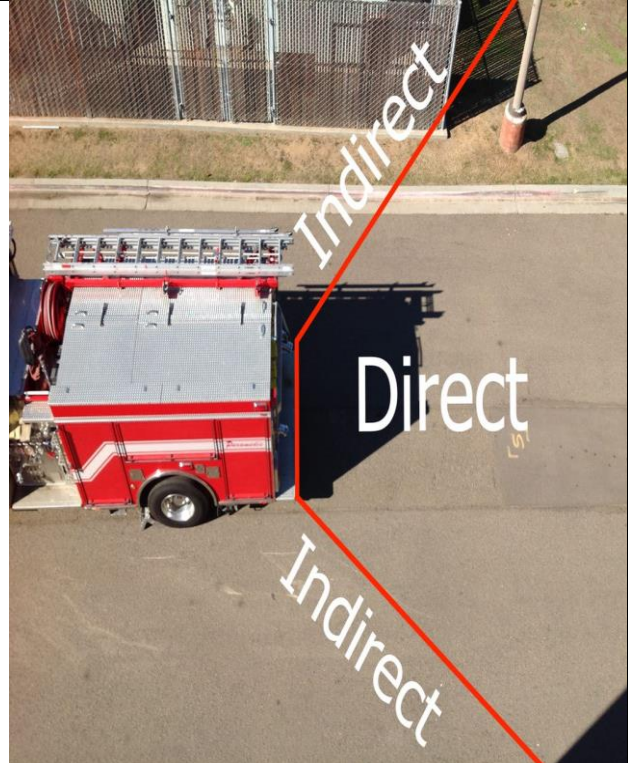
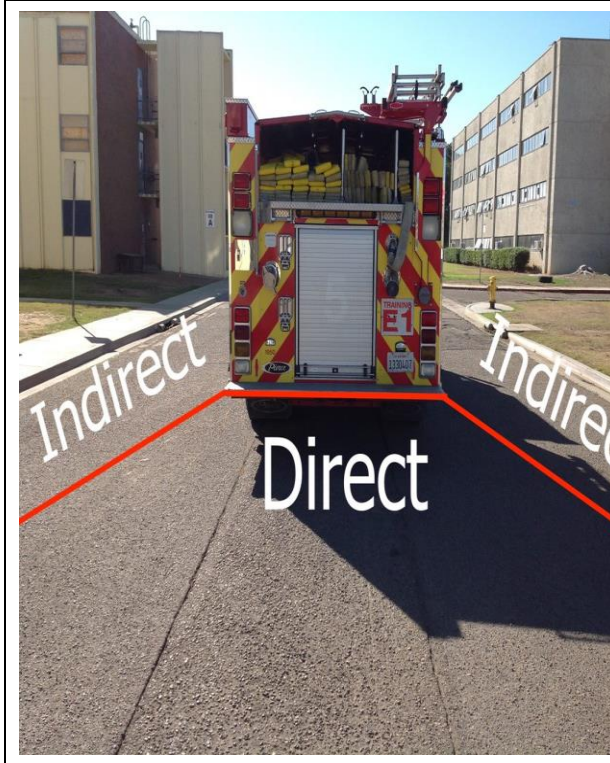


IMAGE #6: HOSE LOADING #2



IMAGE #7: LEG LOCK





Appendix C: Engine Drill Equipment Guide

Decon Kit for each Drill

Hose-Pack Operations

- (1) SCBA and extra bottle per firefighter
- (3) radios and collar mics
- (1) TIC
- (2) additional hosepacks
- (1) Hose roller

2 1/2" Extended (Condo-Lay)

- (1) SCBA and extra bottle per firefighter
- (3) radios and collar mics
- (1) TIC
- (1) Attack Panel and remote
- (1) Smoke machine w/ additional smoke
- Black out masks
- (1) Rescue dummy
- (1) hand light per firefighter
- (1) additional hosepack
- (1) Hose roller

Interior Attack

- (1) SCBA and extra bottle per firefighter
- (3) radios and collar mics
- (1) TIC
- (1) Attack Panel and remote
- (1) Smoke machine w/ additional smoke
- Black out masks
- (1) Rescue dummy
- (1) hand light per firefighter

Progressive Hose-Lay

- Wildland PPE
- (2) additional hose packs
- (1) Hose roller

Vertical Stretch

- Drop Bags
- (1) 24' GEL

Vehicle Fire

- Car prop
- Wheel chocks
- Fire control cart
- Water pan and garden hose
- Pilot box and braided lines
- Extension cords

Supply the Portable Monitor

- (1) Portable monitor and base

Portable Water Tank

- (1) Portable tank
- Hard suction hose w/filter