



FIRE PROTECTION TRAINING

Procedures Handbook 4300

HOSE

TOPIC: How to Make a Progressive Hose Lay (500 feet) – Two Person

TIME FRAME: :30

LEVEL OF INSTRUCTION: Level II

BEHAVIORAL OBJECTIVE:

Condition: A fire engine with operator, providing an adequate fire flow to the nozzle of the hose lay. Two hose clamps, 100' of 1- ½" hose in a single donut configuration (starter roll), 1-½" combination nozzle with bale shut-off, two hose packs containing 200' of 1-½" hose, two 1-½" to 1" in-line hose tee, on flat terrain covered with grass or other natural surface material (as allowed by local ordinances) with a minimum distance of 550 feet.

Behavior: Two students starting from inside the cab of the fire engine (a nozzle person and a hose person) shall make a 500' progressive hose lay from a clearly marked "anchor point" while applying a continuous wet line to a simulated fireline. The students will then break down and return all hose, brass and clamps to the engine during simulated fire conditions. All operations are to be at a walking pace, running is not permitted.

Standard: Completing all operations according to the job breakdown within 8 minutes.



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MATERIALS NEEDED:

- One (1) fire engine with operator
- Two (2) hose clamps
- One (1) 100' length of 1-1/2" "wildland hose" (starter roll) in a single donut roll with rubber band
- Two (2) wildland hose packs containing 200' 1-1/2" wildland hose
- One (1) 1-1/2" combination nozzle with shut-off bail
- Two (2) 1-1/2" in-line hose tee
- One (1) tape measure
- Traffic cones, marking paint, or chalk
- Appropriate wildland fire safety PPE per CAL FIRE policy
- One (1) copy per student of job breakdown

REFERENCES:

- IFSTA, Wildland Firefighting for Structural Firefighters, 4th Edition Chapter 6, pages 224-227, 2003
- CAL FIRE, 7000 Manual

PREPARATION:

Numerous wildland fires have been kept small by firefighters utilizing the progressive hose lay. Firefighters properly skilled in the two-person progressive hose lay can extinguish large amounts of fire.

Fireground communications is an essential element of efficient operations and fireground safety. In order to maintain proficiency in this skill, practice, teamwork and communications essential.



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS

KEY POINTS

1. Deploy hose (starter roll)

1a. Hose person

b. 100' of 1-1/2" wildland hose

- Shout "Hose"
- Parallel to the fire
- Not into the burn
- Completely
- Free of kinks
- Do not drop couplings

2. Hand coupling (starter roll) to engine operator to connect

2a. Hose person

1) Operator connects female coupling of hose to engine discharge outlet

3. Retrieve 1-1/2" nozzle with bale shut off, hose clamps, inline hose tees

3a. Nozzle person

1) From engine's brass compartment

- 1-1/2" combination nozzle with bale shut off
- Hose clamp

3b. Hose person

1) From engine's brass compartment

- Hose clamp
- Two hose tees

4. Secure hose clamp and/or hose tees

4a. Nozzle person and Hose person

1) On person or in hose pack



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OPERATIONS	KEY POINTS
5. Attach nozzle with bale shut-off	5a. Nozzle person
6. Set down nozzle	1) To hose (starter roll) male coupling <ul style="list-style-type: none">• Do not cross thread• Assure bale shut-off is fully closed
7. Don hose pack on back	6a. Nozzle person <ul style="list-style-type: none">• Do not drop
8. Pick up nozzle and instruct engine operator to charge line	7a. Nozzle person and hose person <ul style="list-style-type: none">1) Secure hose pack on back<ul style="list-style-type: none">• Lift with legs, not with the back
9. Open nozzle/bale	8a. Nozzle person <ul style="list-style-type: none">1) State pre-designated command (example "Ready for water")<ul style="list-style-type: none">• Do not advance uncharged hose line
10. Adjust nozzle pattern	9a. Nozzle person <ul style="list-style-type: none">1) Fully and slowly<ul style="list-style-type: none">• Bleed air from hoseline
11. Establish an anchor point and advance the hoseline	10a. Nozzle person <ul style="list-style-type: none">1) Straight stream to full fog pattern<ul style="list-style-type: none">• Leave on a medium fog pattern 11a. Nozzle person <ul style="list-style-type: none">1) Making a continuous wet line from an anchor point marked on ground<ul style="list-style-type: none">• Using traffic cones, paint, chalk2) Alternating straight stream to medium fog pattern simulating knocking fire down while advancing the hose lay



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS

KEY POINTS

12. Close nozzle/bale

13. Remove hose from hose pack

14. Deploy hose

15. Clamp charged hose lay

3) Hose at either hip or over the shoulder

4) Stop advancing hose lay when 10' of slack is left in hose line

5) Knocking simulated fire down ahead of hose lay end with straight stream

11b. Hose person

1) Assist with pulling hose

- Notify nozzle person when 10' of slack is left in hose line

12a. Nozzle person

1) Fully and slowly

- No water hammer

13a. Hose person

1) Remove hose from pack of nozzle person

14a. Hose Person

1) Shouts "Hose" loudly

- Parallel to fire
- Not into the burn
- Completely
- Free from kinks
- Do not drop couplings

15a. Hose Person

1) With wildland hose clamp

- At least 18" from nozzle
- Without pinching hose or fingers

2) Verbalize "**Clamped**" loudly



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OPERATIONS	KEY POINTS
16. Open nozzle/bale to relieve pressure	16a. Nozzle person 1) Slowly, completely
17. Remove nozzle/bale	17a. Nozzle person
18. Trade couplings	18a. Nozzle person 1) Gives male coupling from charged hose to hose person 2) Receives male coupling from uncharged hose 18b. Hose person 1) Receives male coupling from charged hose 2) Retains female coupling from uncharged hose
19. Attach nozzle with bale shut-off	19a. Nozzle person 1) To Hose male coupling <ul style="list-style-type: none">• Do not cross thread• Confirm bale shut-off is fully closed• State pre-designated command (example "Ready for water")
20. Couple hose	20a. Hose person 1) Female end of Hose to male end of charged hose
21. Release hose clamp	21a. Hose person <ul style="list-style-type: none">• Slowly• State pre-designated command (example "Water coming")• Remove from hose completely• Secure on person or in hose pack



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OPERATIONS	KEY POINTS
22. Open nozzle/bale	22a. Nozzle person <ol style="list-style-type: none">1) Fully and slowly<ul style="list-style-type: none">• Bleed air from hoseline• Do not advance until fully charged
23. Test and adjust nozzle pattern	23a. Nozzle person <ol style="list-style-type: none">1) Straight stream to full fog pattern<ul style="list-style-type: none">• Leave on a medium fog pattern
24. Resume advancing hoseline	24a. Nozzle person <ol style="list-style-type: none">1) Making a continuous wet line<ul style="list-style-type: none">• Use alternating straight stream to medium fog pattern knocking down simulated fire in advance of hose lay• Hose at either hip or over the shoulder• Stop advancing when 10' of slack is left in the hose line• Knocking simulated fire down ahead of hose lay end with straight stream24b. Hose person<ol style="list-style-type: none">2) Assist with pulling hose<ul style="list-style-type: none">• Notify nozzle person when 10' of slack is left in hose line
25. Repeat steps 12 - 19	25a. Until 200' of progressive hose lay has been completed
26. Attach in-line hose tee	26a. Hose person <ol style="list-style-type: none">1) To hose male coupling<ul style="list-style-type: none">• Do not drop on ground• Ensure in-line hose tee is closed



OPERATIONS	KEY POINTS
27. Couple hose	27a. Hose person
	1) Female end of Hose to male end of charged hose
28. Release hose clamp	28a. Hose person
	<ul style="list-style-type: none">• Slowly• State pre-designated command (example “Water coming”)• Remove from hose completely• Secure on person or in hose pack
29. Open nozzle/bale	29a. Nozzle person
	1) Fully and slowly <ul style="list-style-type: none">• Bleed air from hoseline• Do not advance until fully charged
30. Test and adjust nozzle pattern	30a. Nozzle person
	1) Straight stream to full fog pattern <ul style="list-style-type: none">• Leave on a medium fog pattern
31. Resume advancing hoseline	31a. Nozzle person
	1) Making a continuous wet line <ul style="list-style-type: none">• Use alternating straight stream to medium fog pattern knocking down simulated fire in advance of hose lay• Hose at either hip or over the shoulder• Stop advancing when 10' of slack is left in the hose line• Knocking simulated fire down ahead of hose lay end with straight stream



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS	KEY POINTS
	31b. Hose person 1) Assist with pulling hose <ul style="list-style-type: none">• Notify nozzle person when 10' of slack is left in hose line
32. Close nozzle/bale	32a. Nozzle person 1) Fully and slowly <ul style="list-style-type: none">• No water hammer
33. Swap positions	33a. Hose person rotates to nozzle person position and nozzle person rotates to hose person position
34. Repeat steps 13 - 24	34a. Until 400' of progressive hose lay has been completed
35. Close nozzle/bale	35a. Nozzle person 1) Fully and slowly <ul style="list-style-type: none">• No water hammer
36. Remove hose from hose pack	36a. Hose person 1) Remove hose from pack of nozzle person
37. Deploy hose	37a. Hose Person 1) Shouts "Hose" loudly <ul style="list-style-type: none">• Parallel to fire• Not into the burn• Completely• Free from kinks• Do not drop couplings
38. Clamp charged hose lay	38a. Hose Person 1) With wildland hose clamp <ul style="list-style-type: none">• At least 18" from nozzle• Without pinching hose or fingers



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS	KEY POINTS
39. Open nozzle/bale to relieve pressure	39a. Nozzle person 1) Slowly, completely
40. Remove nozzle/bale	40a. Nozzle person
41. Trade couplings	41a. Nozzle person 1) Gives male coupling from charged hose to hose person 2) Receives male coupling from uncharged hose 41b. Hose person 1) Receives male coupling from charged hose 2) Retains female coupling from uncharged hose
42. Attach nozzle with bale shut-off	42a. Nozzle person 1) To Hose male coupling <ul style="list-style-type: none">• Do not cross thread• Confirm bale shut-off is fully closed• State pre-designated command (example "Ready for water")
43. Attach in-line hose tee	43a. Hose person 1) To hose male coupling <ul style="list-style-type: none">• Do not drop on ground• Ensure in-line hose tee is closed
44. Couple hose	44a. Hose person 1) Female end of Hose to male end of charged hose



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS

KEY POINTS

45. Release hose clamp

45a. Hose person

- Slowly
- State pre-designated command (example “Water coming”) Remove from hose completely
- Secure on person or in hose pack

46. Open nozzle/bale

46a. Nozzle person

1) Fully and slowly

- Bleed air from hoseline
- Do not advance until fully charged

47. Test and adjust nozzle pattern

47a. Nozzle person

1) Straight stream to full fog pattern

- Leave on a medium fog pattern

48. Resume advancing hoseline

48a. Nozzle person

1) Making a continuous wet line

- Use alternating straight stream to medium fog pattern knocking down simulated fire in advance of hose lay
- Hose at either hip or over the shoulder
- Stop advancing when 10' of slack is left in the hose line
- Knocking simulated fire down ahead of hose lay end with straight stream



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HOW TO MAKE A PROGRESSIVE HOSE LAY (500 FEET) – TWO PERSON

OPERATIONS

KEY POINTS

- 49. Instruct engine operator to "Shut Down" water
- 50. Open nozzle/bale to relieve pressure
- 51. Remove nozzle with bale shut-off
- 52. Secure nozzle/shut-off
- 53. Break down hose
- 54. Return all hose to engine

- 48b. Hose person
 - 1) Assist with pulling hose
 - Notify nozzle person when 10' of slack is left in hose line
- 49a. Nozzle person
 - 1) State loudly or use hand signals
- 50a. Nozzle person
 - 1) Completely
 - To relieve pressure
- 51a. Nozzle person
 - 1) Do not drop
- 52a. Nozzle person
 - 1) On person or in hose pack
 - Do not drop
- 53a. Nozzle person and Hose person
 - 1) Disconnect all couplings
 - b. Engine operator shall disconnect hose from engine discharge outlet
- 54a. Nozzle person and Hose person
 - 1) To a location or marked spot within 10 feet of starting anchor point
 - Use shoulder carry or butterfly figure "8" hose pick-up method
 - Do not drop or drag hose or couplings
 - 200' of hose each minimum



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OPERATIONS

KEY POINTS

55. Return nozzle with bale shut-off, hose clamp, hose tee, and hose pack to engine

56. Hose lay is completed when all hose and appliances have been returned

55a. Nozzle person

- 1) To a location or marked spot within 10 feet of starting anchor point
 - Without dropping equipment



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How to Make a
Progressive Hose lay
(500 feet) – Two Person

APPLICATION:

Student will practice performing the operation in the job breakdown while under supervision.

EVALUATION:

The student will complete a manipulative performance test at a date and location determined by the instructor.

ASSIGNMENT:

Practice this job to prepare yourself for the upcoming performance test.