



Fire & Rescue Services ITO

Assessor Assessment Guide Unit Standard 3294 Lead prescribed vegetation burning operations (Level 4, Credit 3, Version 3)

In order to achieve competency in this unit standard a candidate must display an understanding of the knowledge components by completing an oral or written assessment or practically demonstrate knowledge of vegetation burning equipment, knowledge of lighting up patterns and hand ignition techniques, and supervise a lighting up crew while assessing fire behaviour and fire environment during lighting up, and maintaining communications during a burning operation. This assessment must take place using real fire.

The assessor may elect to question candidates during completion of the practical assessment to ensure theoretical knowledge can be applied during practice. This technique also provides the assessor with reinforcement that knowledge has been retained.

Where a candidate is being assessed on the basis of a RCC process evidence must be produced that indicates a candidate has successfully demonstrated knowledge of burning equipment and lighting techniques, has supervised a lighting up crew safely while assessing the fire behaviour and fire environment, and has maintained communications with crew, and supervisor during a burn operation.

At this level the candidate is expected to demonstrate operational leadership, knowledge of a range of equipment and techniques, be able to work with autonomy and be responsible for the quality of the result, safety of those under their control and the ability to keep fire management and supervisors informed.

Assessors may use this guide to record evidence of a candidates overall performance but should be aware that this may not, on its own be an adequate record for moderation purposes without appropriate notes or appendices. Notes should include a summary of the process used and a statement about the quality of the candidate's performance.

ASSESSORS SHOULD ALWAYS REVIEW THE REQUIREMENTS CONTAINED IN THE UNIT STANDARD DOCUMENT PRIOR TO CONDUCTING ASSESSMENTS

For this unit the following resources are available from FRSITO to assist Learners, Instructors and Assessors:

- Assessor Assessment Guide
- Learner Assessment Guide

Assessors General Notes:

Candidate is recommended to gain Unit Standard 14564, *Demonstrate knowledge of the fire environment on vegetation fire behaviour*, before attempting this unit standard.

Candidate **must hold** Unit Standard 3285, *Demonstrate knowledge of protection of personal safety at vegetation fires*, before this unit can be registered on their NZQA record of learning.

Candidates must hold Unit Standard 3285 before participating in activities on the fire ground.

Assessor can seek assistance of a FRSITO moderator who may conduct spot moderation and assist with pre-planning. Check practice notes to ensure any additional criteria are considered.

http://www.frsito.org.nz/assessors/resources/Practice_notes.html

Assessor Name	_____	Assessor No.	_____
Candidate Name	_____	NZQA No.	_____
Date of Assessment	_____	Final Result	_____

Level Descriptor

Level	Process	Employing	Responsibility
4	Carrying out processes that: <ul style="list-style-type: none"> Require a wide range of scholastic skills Offer a considerable choice of procedures Are employed in a variety of familiar and unfamiliar contexts 	Employing: <ul style="list-style-type: none"> A broad knowledge base incorporating some theoretical concepts Analytical interpretation of information Informed judgement A range of sometimes innovative responses to concrete but often unfamiliar problems 	Applied: <ul style="list-style-type: none"> In directed activity Under broad guidance and evaluation With complete responsibility for the quantity and quality of output With possible responsibility for the quantity and quality of the output of others

	Information or actions that may provide support for competency	
General	Has the candidate: <ul style="list-style-type: none"> <input type="checkbox"/> Gained unit standard 3285? <input type="checkbox"/> Satisfactorily completed a pre course self test? <input type="checkbox"/> Satisfactorily completed an oral or written on course or post knowledge assessment? <input type="checkbox"/> Satisfactorily lead a lighting crew at a burn off? <input type="checkbox"/> Attend a course covering the Unit Standard subject matter? <input type="checkbox"/> Provided proof of experience through records? <input type="checkbox"/> Other (please list)? <hr/> <hr/>	Assessor Notes:

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1	Demonstrate knowledge of vegetation burning equipment.		
1.1	Candidate must describe how each of the following work and the capabilities of each, i.e. what is each best suited for and limits of operation? Range: <ul style="list-style-type: none"> <input type="checkbox"/> igniters <input type="checkbox"/> drip torches <input type="checkbox"/> pressurised burners <input type="checkbox"/> backpack flame-throwers Did the candidate: <ul style="list-style-type: none"> <input type="checkbox"/> Describe operation of each? <input type="checkbox"/> Describe capabilities and limits of each? Assessor notes:	Correct description of each type of burning equipment is given.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1.2	<p>Candidate must explain any safety requirements for hand operated burning equipment, such as PPE, moving 5m away from refuelling area before lighting up, avoiding fuel spillages or leaks etc., in accordance with organisation's requirements.</p> <p>Should cover general safety requirements as well as any specific requirements applicable to the type of equipment to be used for the burn.</p> <p>Did the candidate:</p> <p><input type="checkbox"/> Explain safety requirements?</p> <p>Assessor notes:</p>	Safety requirements explained.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
2	Demonstrate knowledge of lighting up patterns and hand ignition techniques.		
2.1	<p>Candidate must explain methods of lighting up, patterns for light up, and safe work requirements as required by organisation.</p> <p>Range: Must describe any four of the following, but should include those items likely to be relevant to the prescribed burn:</p> <ul style="list-style-type: none"> <input type="checkbox"/> ignition point spacing <input type="checkbox"/> strip lighting <input type="checkbox"/> central ignition <input type="checkbox"/> spot ignition <input type="checkbox"/> back burning <input type="checkbox"/> flank burning <input type="checkbox"/> ring burning <p>Did the candidate:</p> <p><input type="checkbox"/> Explain operation of four methods/patterns? <input type="checkbox"/> Explain safety requirements for each?</p> <p>Assessor notes:</p>	<p>Four light up methods / patterns explained correctly.</p> <p>Safe work requirements for each method / pattern explained.</p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
2.2	<p>Candidate must explain hand ignition techniques in accordance with the requirements of own organisation.</p> <p>Consider the following: Should include aspects of safety in terms of</p> <ul style="list-style-type: none"> • maintaining visual contact • working with a buddy • using cleared tracks in rough terrain • working to the plan, and • maintaining communications <p>Did the candidate: <input type="checkbox"/> Explain hand ignition techniques?</p> <p>Assessor notes:</p>	Hand ignition techniques described.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
3	Supervise a lighting up crew.		
3.1	<p>Candidate must allocate tasks to crew members within limits of their training and experience. Mentoring opportunities may enable the pairing of inexperienced and experienced crew members as a means of maintaining safety.</p> <p>Did the candidate: <input type="checkbox"/> Allocate tasks to crew according to skill and competence?</p> <p>Assessor notes:</p>	Allocation of tasks makes best use of crew members while maintaining safety.	
3.2	<p>Candidate must conduct a briefing to cover:</p> <p>Range:</p> <ul style="list-style-type: none"> <input type="checkbox"/> tasks <input type="checkbox"/> responsibilities <input type="checkbox"/> escape routes <input type="checkbox"/> safety procedures <p>Additional items may need to be included with particular consideration of LACES and any specific hazards on the burn site.</p> <p>Did the candidate: <input type="checkbox"/> Brief crews on all aspects of the burn plan? <input type="checkbox"/> Brief crew on light up method and pattern?</p> <p>Assessor notes:</p>	Briefing conducted and key points covered.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
3.3	<p>Candidate must monitor crew performance and safety and take corrective action when required.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Make sure staffs carry out light up as briefed? <input type="checkbox"/> Make sure staffs follow required safety practices? <input type="checkbox"/> Take action where staffs deviate from plan or where unsafe situations occur? <p>Assessor notes:</p>	<p>Crew perform light up as briefed.</p> <p>Safety maintained and no one put at risk or hurt.</p> <p>Performance and safety deficiencies corrected.</p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
4	Assess fire environment and fire behaviour during lighting-up operations.		
4.1	<p>Candidate must monitor the fire environment and fire behaviour.</p> <p>Consider the following:</p> <ul style="list-style-type: none"> • Should have access to on-site weather readings (temp, RH, wind speed/direction) and be monitoring for changes. • Should monitor the effect of local winds, whirls etc. on the light up. • The effect of terrain on wind should be monitored as it impacts on the light up. • Impact of changes in terrain and/or fuel type on fire behaviour should be anticipated and monitored. • Should monitor forward rate of spread, fire intensity (flame length), and spotting for impact on light up crew. <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Monitor fire environment factors during light up? <input type="checkbox"/> Monitor fire behaviour during light up? <p>Assessor notes:</p>	<p>Fire environment monitored.</p> <p>Fire behaviour monitored.</p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
4.2	<p>Candidate must assess changes in the fire environment and the fire behaviour and take action to modify the lighting up action as necessitated by any changed conditions.</p> <p>Consider the following:</p> <ul style="list-style-type: none"> • burns not igniting or burning as quickly as anticipated • fire running faster than expected • wind • humidity • air temperature changes • change of rate of spread or fire intensity • fire running into changes of fuel or terrain <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recognise changes and assess the impact on light up operations? <input type="checkbox"/> Make modifications to light up as necessitated by changes? <p>Assessor notes:</p>	<p>Changes assessed and actions altered when impact of changes makes it necessary.</p>	

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5	Communicate during a vegetation burning operation. Range: <input type="checkbox"/> crew <input type="checkbox"/> fire supervisors <input type="checkbox"/> higher authority		
5.1	Candidate must maintain communications with listed groups as required by the burn plan and own organisation. Did the candidate: <input type="checkbox"/> Maintain communications as required by organisation? Assessor notes:	Communications maintained.	
5.2	Candidate exchanges information and instructions with crew, supervisors and fire management staff. Range: <input type="checkbox"/> work progress <input type="checkbox"/> fire behaviour <input type="checkbox"/> crew safety Did the candidate: <input type="checkbox"/> Communicate required information to crew and supervisory staff? Assessor notes:	Critical information communicated as required by organisation.	