



Fire & Rescue Services ITO

## Assessor Assessment Guide Unit Standard 3296 Manage prescribed vegetation burning operations (Level 5, Credit 6, 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 light up patterns and ignition techniques, prepare a prescribed burn plan and set up a burn, and manage the implementation of a burn plan. This assessment must take place at a real fire. A written burn plan and map must be produced.

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 light up patterns and ignition techniques, prepared a burn plan, and managed the implementation of a burn plan on a real prescribed burn.

At this level the candidate is expected to incorporate knowledge of a range of lighting patterns and techniques, and knowledge of the effects of the fire environment on fire behaviour into a burn plan, organise and manage a prescribed burn by exercising operational management of multiple crews and resources to maintain safety of those under his/her control, and keep the PRFO 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 4648, *Demonstrate knowledge of vegetation fire behaviour* before attempting this unit standard.
- Candidate **must hold** Unit Standard 14564, *Demonstrate knowledge of the fire environment on vegetation fire behaviour* before this unit can be registered on their NZQA record of learning.

Assessor can seek assistance of a FRSITO moderator who may conduct spot moderation and assist with pre-planning. This unit cannot be assessed solely on theoretical knowledge. Sand table or kiwi simulator exercises do not provide adequate evidence for this unit standard.

Check practice notes to ensure any additional criteria are considered.

[http://www.frsito.org.nz/assessors/resources/Practice\\_notes.html](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
5	<b>Carrying out processes that:</b> <ul style="list-style-type: none"> <li>Require a wide range of specialised technical or scholastic skills</li> <li>Involve a wide choice of standard and non-standard procedures</li> <li>Are employed in a variety of routine and non-routine contexts</li> </ul>	<b>Employing:</b> <ul style="list-style-type: none"> <li>A broad knowledge base with substantial depth in some areas</li> <li>Analytical interpretation of a wide range of data</li> <li>The determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements</li> </ul>	<b>Applied:</b> <ul style="list-style-type: none"> <li>In self-directed and sometimes directed activity</li> <li>with broad general guidelines or functions</li> <li>With full responsibility for the nature, quantity and quality of outcomes</li> <li>With possible responsibility for the achievement of group outcome</li> </ul>

	Information or actions that may provide support for competency	
General	<b>Has the candidate:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Completed unit standard 14564?</li> <li><input type="checkbox"/> Satisfactorily completed a pre course self test?</li> <li><input type="checkbox"/> Satisfactorily completed an oral or written on course or post knowledge assessment?</li> <li><input type="checkbox"/> Satisfactorily managed a prescribed burn-off?</li> <li><input type="checkbox"/> Attend a course covering the Unit Standard subject matter?</li> <li><input type="checkbox"/> Provided proof of experience through records?</li> <li><input type="checkbox"/> Produced a written burn plan as evidence?</li> <li><input type="checkbox"/> Other (please list)?</li> </ul> <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
<b>1</b>	<b>Demonstrate knowledge of light up patterns and ignition techniques of vegetation fire behaviour.</b>		
1.1	<p>Candidate must identify the potential impact of general and local weather influences on fire behaviour at the planned burn site.</p> <p><b>Consider the following:</b></p> <ul style="list-style-type: none"> <li>• This may be done by preparing an analysis of options arising from weather variables to support decisions made in the production of the burn plan.</li> <li>• Consider land-sea breeze effect, including from lakes. See PC 1.2.</li> </ul> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify weather variables for the site?</li> <li><input type="checkbox"/> Predict fire behaviour for the variables identified?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Fire behaviour is predicted for weather variations at the burn site.</b></p>	
1.2	<p>Candidate must evaluate light up patterns for the planned burn.</p> <p><b>Consider the following:</b></p> <ul style="list-style-type: none"> <li>• fire behaviour predictions from PC 1.1</li> <li>• aim of the burn</li> <li>• weather, terrain, fuels</li> <li>• safety considerations</li> <li>• requirements of the organisation</li> </ul> <p>The purpose of this evaluation is to identify the pattern and light up techniques to be used.</p> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Predict fire behaviour for the variables identified?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Light up patterns evaluated.</b></p> <p><b>Selection of pattern meets requirements of organisation.</b></p> <p><b>Selection of pattern is safe and realistic for nature of the burn.</b></p>	

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2	<b>Plan for prescribed burn of vegetation.</b>		
2.1	<p>Candidate must collect and assess all information relevant to the prescribed burn.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> inspection of burn area</li> <li><input type="checkbox"/> interpretation of topographical maps and/or aerial photographs</li> <li><input type="checkbox"/> legislative constraints</li> <li><input type="checkbox"/> risks to adjacent areas</li> <li><input type="checkbox"/> fire behaviour criteria</li> <li><input type="checkbox"/> weather conditions</li> <li><input type="checkbox"/> potential for fire escape</li> <li><input type="checkbox"/> suppression resources</li> </ul> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Collect all relevant data?</li> <li><input type="checkbox"/> Assess the data for potential impact on the prescribed burn and against requirements of organisation?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>All information relevant to prescribed burn is collected.</b></p> <p><b>Information is assessed for potential impact on burn and against organisation's requirements.</b></p>	
2.2	<p>Candidate must prepare a written prescribed burn plan, including a detailed map, in accordance with the requirements of own organisation. This may be done using a standard template.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> communications</li> <li><input type="checkbox"/> deployment of resources</li> <li><input type="checkbox"/> control line action</li> <li><input type="checkbox"/> formation standards</li> <li><input type="checkbox"/> light up patterns and techniques</li> <li><input type="checkbox"/> firing sequences</li> <li><input type="checkbox"/> control of prescribed fire</li> <li><input type="checkbox"/> required levels of vegetation removal</li> <li><input type="checkbox"/> safety of - personnel, equipment, including anchor points and escape routes</li> <li><input type="checkbox"/> protection of exposures and surrounding area</li> </ul> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Produce a written burn plan?</li> <li><input type="checkbox"/> Include all essential information in the plan?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Burn plan produced.</b></p> <p><b>Plan covers all relevant aspects of the proposed operation.</b></p>	

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2.3	<p>Candidate must get the burn plan approved by an authorised person as required by organisation. This includes the PRFO or Deputy PRFO.</p> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Get the plan approved in accordance with organisation's requirements?</p> <p><b>Assessor notes:</b></p>	<p><b>Plan approved by authorised person as required by organisation.</b></p>	

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<b>3</b>	<b>Prepare for prescribed burn of vegetation.</b>		
3.1	<p>Candidate must arrange for an authorised Rural Fire Officer to inspect prescribed burn area and issue a fire permit where required by the Fire Authority.</p> <p>Did the candidate:</p> <p><input type="checkbox"/> Have RFO inspect the burn site?  <input type="checkbox"/> Obtain a fire permit where required?</p> <p>Assessor notes:</p>	<p><b>RFO inspection conducted.</b></p> <p><b>Permit obtained where required.</b></p>	
3.2	<p>Candidate must obtain updated weather forecasts and secure support services relevant to the burn in accordance with organisation's requirements.</p> <p><b>Consider the following:</b>                      Support services will vary according to the size and nature of the burn but may include:</p> <ul style="list-style-type: none"> <li>• communications operators</li> <li>• log keepers</li> <li>• catering staff</li> <li>• mechanical support staff</li> <li>• fuel supplies</li> <li>• first aid staff etc</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Obtain current forecasts?  <input type="checkbox"/> Arrange support services appropriate for the burn?</p> <p><b>Assessor notes:</b></p>	<p><b>Weather forecasts obtained.</b></p> <p><b>Support services arranged relevant to the burn.</b></p>	

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3.3	<p>Candidate must prepare crews for the burn operation.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> establishing communications</li> <li><input type="checkbox"/> allocating tasks to crews and supervisors</li> <li><input type="checkbox"/> conducting briefing with crew leaders</li> </ul> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prepare crews by ensuring they all know what they are to do, how they will communicate, and are briefed on the operation, especially safety and hazards?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Communications established.</b></p> <p><b>All staff assigned tasks.</b></p> <p><b>Briefing conducted.</b></p>	

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<b>4</b>	<b>Manage implementation of vegetation burn plan.</b>		
4.1	<p>Candidate must ensure that compliance requirements and conditions of the fire permit are met prior to light up.</p> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Ensure any fire permit conditions are complied with before light up?</li> <li><input type="checkbox"/> Ensure other requirements such as resource consent conditions are met before light up and during burn?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Permit conditions complied with.</b></p> <p><b>Other applicable compliance requirements met.</b></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 manage the burn in accordance with the approved burn plan, organisation, and Fire Authority requirements.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> follow the burn plan</li> <li><input type="checkbox"/> maintain communications with crews, supervisory staff, and superiors</li> <li><input type="checkbox"/> deploy resources</li> <li><input type="checkbox"/> monitor crew performance</li> <li><input type="checkbox"/> monitor for threat of escape</li> <li><input type="checkbox"/> assess progress and efficiency of burning operation</li> <li><input type="checkbox"/> make adjustments to plan as required during burn</li> </ul> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Manage burn according to requirements?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Burn completed successfully.</b></p> <p><b>No breakouts beyond perimeter of burn area.</b></p> <p><b>No staff put at risk or injured.</b></p>	
4.3	<p>Candidate must manage the burn mop up and patrol in accordance with the burn plan.</p> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Follow the burn plan requirements for mop up?</li> <li><input type="checkbox"/> Ensure fire patrolled and no hot spots left?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Mop up completed.</b></p> <p><b>No subsequent re-ignition of fire occurred.</b></p>	
4.4	<p>Candidate must complete all documentation required by organisation. May include collating of timesheets and contractor use for accounting purposes, internal reporting requirements etc.</p> <p><b>Did the candidate:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Complete documentation?</li> </ul> <p><b>Assessor notes:</b></p>	<p><b>Documentation completed as required by organisation.</b></p>	