

Professional Standard: Certified Burn Controller Capabilities

Authority

This standard was approved by the EMPS Panel on 15 March 2019.

Context

This document is a high-level outline of capabilities that can be observed in practice. These are capabilities expected of personnel with responsibility for planning and conducting prescribed burns, who wish to have their practice acknowledged and credentialed as part of AFAC's Professionalisation Scheme. It is expected that demonstrating the capabilities will require a portfolio of evidence collected over time.

This document is NOT:

- a prescription of what training courses should be delivered;
- a replacement for agency sign off and validation that personnel are able to do the job;
- a selection and recruitment tool for trainees, or
- a template to be used to sign off capabilities in a once-off observation.

It is acknowledged that States have different titles for the role of operational Burn Controller, for example 'Burn Manager' or 'Burn Incident Controller' may be used to describe someone who meets this requirement in some jurisdictions. References in this Standard to the role of 'Burn Controller' should be read as referring to the relevant title in each jurisdiction.

The role of Burn Controller is to be accountable for the planning and management of all activities and resources necessary to plan and conduct a prescribed burn with due consideration to mitigating risks to life, property and environment. In fulfilling this role the Burn Controller will be responsible for the strategic, operational and tactical decisions necessary to successfully deliver a prescribed burn.

The Burn Controller is required to deliver a 'planned and typically high risk operation', exercise critical thinking and judgement to determine the level of resources and structure required to manage the prescribed burn, including consideration of weather and resourcing for subsequent shifts in order to maintain burn security.

The Burn Controller is expected to participate in the development of new complex burn incident controllers through mentoring and training programs.

Complex Burn Control is practiced in accordance with doctrine set out in the National Burning Project. Specifically, 'Operational Planning Phase' and 'Burn Implementation Phase' as defined (Figure 1) in the National Burning Project (National Guidelines for Prescribed Burning Operations, AFAC 2016).

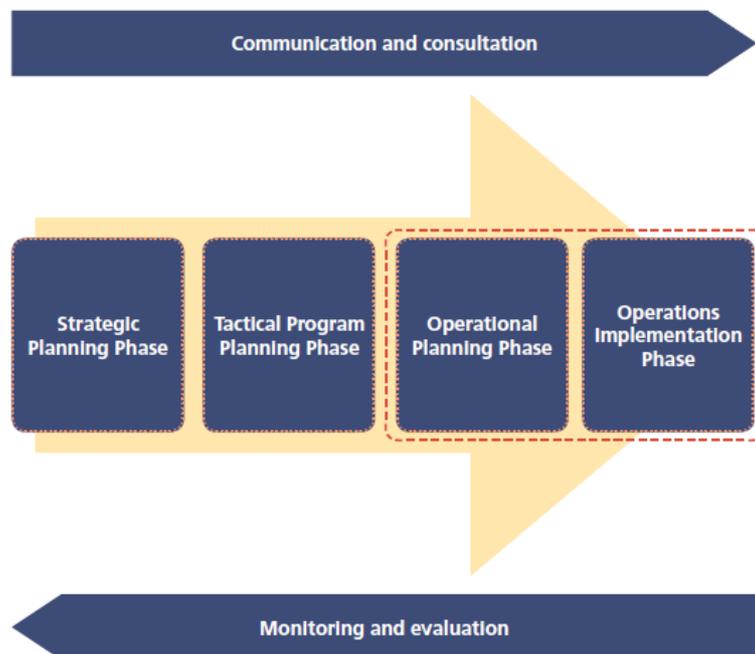


Figure 1: High-level end-end process model of prescribed burning

Appointment of Burn Controllers

Appointment to the role of Burn Controller for a burn is made by the organisation with the relevant legislative and organisational authority. When appointed, the Burn Controller has the authority to make directions and take actions in relation to the burn, including in response to changing conditions.

Accountabilities

The Burn Controller will be required to:

- manage the safety and welfare of staff delivering the burn;
- be accountable for the planning of the prescribed burn in accordance with the burn objectives;
- be accountable for the pre-burn and pre-ignition activities, test burn and decision to proceed;
- be accountable for the conducting of the prescribed burn in accordance with the burn objectives;
- maintain situational awareness to ensure public safety during and post burn;
- plan and manage the burn operation utilising AIIMS principles;
- identify risks, determine ignition strategies and suppression resources required;
- communicate risk, impact and consequences to community and stakeholders;
- establish and maintain multi-agency communication and cooperation;
- establish and manage the burn team;
- ensure all notifications are made in accordance with jurisdictional and agency requirements;
- conclude burn operations in accordance with agency procedures, which may include post-burn assessments and fuel hazard assessments to ensure objectives have been met.

The extent to which these accountabilities are required is determined by the complexity of burn to be conducted. The burn should be planned and conducted in accordance to national best practice, see the 17 principles from the National Guidelines for Prescribed Burn Operations (AFAC 2016) covering operational planning and burn implementation.

Stakeholders

The Burn Controller may be required to manage relationships with a broad range of stakeholders including:

- local communities and individuals
- private landowners
- environmental experts and NGOs
- fire planners and burn planners
- adjoining land managers
- multi-jurisdictional emergency management agencies
- local governments
- managers of significant state and national infrastructure.

Areas of capability

There are two main areas of capability for Burn Controllers:

1. capabilities to employ expertise in prescribed burning knowledge, and
2. capabilities to think and plan strategically.

1. Capabilities to employ expertise in prescribed burning knowledge include the ability to:

Plan effectively: the ability to influence others and facilitate team efforts towards the achievement of common goals. This involves:

- modelling inclusiveness and good governance;
- using advanced knowledge of prescribed burning to contribute to a safe and effective burn plan which minimises risks to workers and the community while maximising the achievement of burn objectives, and
- applying effective decision making, particularly regarding the decision to light the burn

Oversee the conduct of the burn: the ability to consider multiple perspectives and scenarios to engage in ongoing review of actions and objectives, and consequence management. This involves:

- pursuing sense-making and encouraging same in others;
- using decision models effectively to identify any deviation from planned fire behaviour and consequences, and put appropriate mitigating measures in place in response to new information, and
- enabling consequence management.

2. **Capabilities to think and plan strategically** include the ability to:

Practice strategic thinking and planning when planning and conducting burn operations. This involves:

- Articulate objectives, strategies and actions aligned with broader policy objectives so that they provide a good basis for planning and decision-making for all involved;
- Understands how the interests of the agency, the community and the environment intersect, and make defensible decisions that take them into account;
- Identify key measures of success taking into account multiple perspectives on what successful outcomes look like, and monitor progress.

Enables consequence management by:

- Engaging in contingency planning, adjusting strategies;
- Maintain a focus on desired outcomes of the burn and make appropriate adjustments to the plan where necessary in the light of new information about how those outcomes are being achieved.

The following table (Appendix 1) sets out broad capabilities to be expected of incident managers, and contextualises them for Burn Controllers.

Review

This standard will commence 15 March 2019. The Panel will review this standard following three (3) years of operation.

Related professional standards

This document should be read in conjunction with:

- EMPS Code of Ethics
- Professional Standard: Burn Incident Controller Requirements
- Professional Standard: Continuing Professional Development.

Area of Capability	Capability	Incident Management Capability	Behavioural Indicators
<p>Model Leadership and Teamwork</p> <p><i>The ability to act with integrity, influence others, facilitate team efforts towards the achievement of common goals</i></p>	<p>Model ethics, inclusiveness and good governance</p>	<ul style="list-style-type: none"> Behave in ways consistent with the <i>Code of Ethics</i> Engage in building partnerships with multiple stakeholders through establishing collaborative goals with agreed parameters and treating stakeholders with respect Demonstrate resilience and moral courage Accept scrutiny of decision making as a naturally occurring process Understand legal and contractual frameworks involved in burning on public and private land 	<ul style="list-style-type: none"> Acts in accordance with the <i>Code of Ethics</i> Acts in alignment with organisational frameworks (e.g., OH&S policy) Identifies and complies with any contractual requirements associated with burning on private land Shows personal integrity Treats others with respect Applies governance processes and procedures for the greater good Displays courage to make hard decisions Establishes and maintains appropriate record-keeping and governance processes Documents decisions and actions to be able to evidence them later if required Engages in upward chain of command and lateral multi-agency coordination, along with whole-of-government processes
	<p>Create effective background conditions to build confident and capable teams and engaged stakeholders</p>	<ul style="list-style-type: none"> Engage immediate team and stakeholders so that they are motivated to achieve the outcomes sought Create team communication climates where all team members feel safe to speak up about any concerns they may have regardless of rank or status, without fear of ridicule or recrimination Recognise and contribute critical information to support cross-functional team work and decision-making Proactively seek opportunities to help achieve team goals Manage a diversity of crew in a variety of prescribed burn settings, and issues of conduct and performance that may arise 	<ul style="list-style-type: none"> Communicates effectively with incoming team members and ensures they understand strategic and planning decisions that have already been taken Engages with operational managers and ensures they are familiar with the burn plan before ignition Creates a collaborative team climate (e.g., communicates in a way that is open, direct, measured, and approachable) Pursues honest and open input and feedback Responds promptly and constructively to questions and concerns raised Uses compelling communication to advocate for the needs of the team

Area of Capability	Capability	Incident Management Capability	Behavioural Indicators
		<p>Critical capabilities for a Burn Controller:</p> <ul style="list-style-type: none"> • Create a shared purpose and direction for the whole team • Quickly assess team members and assign tasks appropriately to build on individual and team strengths • Encourage other team members to engage in critical questioning and frank discussion • Build and sustain positive relationships with personnel from other agencies • Include team and stakeholder considerations in decision-making • Balance between competing needs of stakeholders • Advocate for the needs of the team • Monitor and maintain internal team cohesiveness and stakeholder support 	<ul style="list-style-type: none"> • Monitors team member capability and addresses any dysfunctional behaviour or gaps • Consults with communities and stakeholders to identify their issues, concerns and risks.
	Apply effective decision-making	<ul style="list-style-type: none"> • Utilise appropriate decision-making styles in the planning and execution phase of prescribed burns • Make effective decisions in a timely manner when conducting burns and understand the limitations of decision-making in an operational environment • Balance practical outcomes with government, community and stakeholder expectations • Collaborate with others in decision-making to reach an agreed approach • Recognise and articulate the triggers that would require a decision change • Monitor progress to assess alignment with the objectives and reset as necessary 	<ul style="list-style-type: none"> • Employs decision-making styles appropriate and demonstrates flexibility appropriate to the context (recognises the different styles appropriate to an analytical planning phase and a dynamic execution phase) • Can explain, when asked, the reasons for the decision made as well as the processes used (e.g., can articulate how team, community and stakeholder needs have been taken into consideration in the decisions made) • Engages in contingency planning if predicted fire behaviour changes • Clearly outlines the triggers that would require a decision change • Revisits planning risk assessments in light of actual conditions on the ground • Takes decisions to light or not to light a burn based on a current and objective assessment of risk

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		<p>Critical capabilities for a Burn Controller:</p> <ul style="list-style-type: none"> • Ability to make the difficult decision to proceed or not proceed with a burn despite conflicting external pressure • Lead team members to achieve goals, ensuring their appreciation of the distinction between the planning and execution phases • Understand the impacts of operational constraints (e.g. uncertainty, time pressure, community needs) • Make operational decisions, including the decision to light, in line with current risk assessments • Identify and facilitate team awareness of triggers that require reassessment and change • Proactively look for early signs of when the decision needs to be adjusted • Adapt the leadership style to be appropriate to the context • Balance competing stakeholder needs and priorities, employing conflict resolution to achieve an agreed decision • Communicates decisions made and ensures decision intent is implemented • Maintain the appropriate authorising environment for team members to enact their own decisions 	<ul style="list-style-type: none"> • Monitors fire behaviour on the ground and appropriately modifies the plan accordingly • Is timely in making operational decisions that can be assessed as likely to be reasonable at their point in time • Proactively looks for early signs of when decisions need to be adjusted • Employs conflict resolution and negotiation strategies to balance competing stakeholder needs and priorities, to achieve an agreed decision • Communicates decisions made and ensures decision intent is implemented

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<p>Think and plan strategically</p> <p><i>The ability to consider multiple perspectives and scenarios to engage in strategic planning and consequence management</i></p>	<p>Pursue sense-making and encourage same in others</p>	<ul style="list-style-type: none"> • Make meaning from sometimes incomplete or conflicting information in high pressure environments • Ability to listen carefully and to recognise discrepancies between expectations and reality • Critically evaluate information and intelligence promptly, to assess risk and diagnose the decision most likely to lead to a positive outcome • Understand the sensitivity of various pieces of intelligence and gaps • Identify what is NOT being considered or said • Proactively attune to subtle signals that conditions are deteriorating and ask good questions to ascertain what is happening • Engage in continuous ongoing monitoring to identify gaps in the implementation of the plan and assess the significance of those gaps on the outcome sought <p>Critical capabilities for a Burn Controller:</p> <ul style="list-style-type: none"> • Facilitate thinking by team members the implications of multiple sources of information that may be conflicting • Encourage vigorous discussion to test assumptions • Lead team members to apply creative thinking • Help others to identify divergence in expectations and to clarify differences • Understand how documented burn plans and modelled fire behaviour need to be adapted and modified to actual conditions when implementing a plan • Help others and to identify individual and group bias in thinking and decision making • Identify and mediate dysfunctional ways of operating that inhibit sense-making and critical thinking 	<ul style="list-style-type: none"> • Establishes mechanisms for testing and improving situational awareness • Identifies knowledge gaps, uncertainty, threats and emerging issues so that these can be managed • Can identify patterns and trends in a timely manner • Encourages (and coaches if needed) other team members to engage in critical questioning and frank discussion to test assumptions and process conflicting information • Seeks alternative opinions and perspectives including contra-indicators • Is not caught by surprise by fire behaviour different than predicted and is able to direct alternative courses of action to address reality on the ground • Can outline how a judgement has taken into account personal and group biases • Projects possible outcomes based on information and intelligence gathered, weighing up different sources and their credibility

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	Practice strategic thinking and planning	<ul style="list-style-type: none"> • Develops plans and strategies in the context of broader policy objectives and organisational targets • Articulate objectives, strategies and actions determined through sense-making so that they provide a good basis for planning and decision-making for all involved • Prioritise multiple time and space issues to identify what is important to plan for, and to filter what is not • Employ strategies to avoid being distracted by minutiae and to maintain a wider focus, canvassing future outcomes, options and potential impact <p>Critical capabilities for a Burn Incident Controller:</p> <ul style="list-style-type: none"> • Recognise the political implications of prescribed burning, fuel reduction strategies and operational delivery of these • Understand the competing perspectives of government, the agency, and the community • Understand community perspectives on planned burning and the strategic implications of short-term decisions • Formulate strategic intent appropriate to the situation • Utilise compelling communication to gain support and resources needed to achieve objectives from higher levels of command, the community and other stakeholders • Recognise local resource needs in the context of the broader policy environment • Identify key measures of success and monitor progress • Facilitate team member thinking, deliberative planning and problem solving 	<ul style="list-style-type: none"> • Plans ahead in order to maximise suitable conditions and opportunities to maximise operational success and cost effectiveness. • Recognises the consequences of options available • Assesses risk associated with the burn from multiple perspectives and from a strategic as well as a tactical viewpoint • Can predict future options that reflect the information gathered through sense-making and evaluate those options • Checks the broader landscape to ensure other strategies have been implemented which are pivotal to the success of the burn planned • Develops and implements strategies and tactics for discovering community views • Implements strategies to engage with the community and build support for prescribed burning as a strategy to reduce bushfire risk and obtain ecological benefits • Can clearly explain the significance and potential consequences of planned burns, both if they remain within prescription and if they escape • Can clearly and concisely explain the planning strategies chosen • Explains the assumptions on which plans are based and triggers for reassessing plans • Acts quickly to adjust the strategy as the context changes • Demonstrates creativity and flexibility in adapting plans to improvise in novel situations • Checks the burn characteristics are consistent with the strategic intent.

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	Enables consequence management	<ul style="list-style-type: none"> • Maintain a focus on intended outcomes of the prescribed burn and understand the unintended adverse effects • Engage in contingency planning for escape of the burn and have adequate resources in place to address any foreseeable escape • Assess wider issues of community opinion and support for ongoing burning programs that may be affected either positively or negatively by the outcomes of the burn. <p>Critical Burn Incident Controller capabilities include:</p> <ul style="list-style-type: none"> • Pre-mortem consequence assessment and understanding. • Use influencing strategies to mitigate adverse public reaction to the consequences of a burn • Evaluate the consequences of different ways of resolving conflicting stakeholder priorities and needs • Negotiate with relevant government heads, elected leaders and landowners about the cost-benefit implications of proposed burns 	<ul style="list-style-type: none"> • Understands and articulates the potential consequences of undertaking or not undertaking the burn operations to both the community, the agency and the environment • Can identify all those who are potentially affected by the burn • Can explain the long-term impacts of the burn and why these justify short-term adverse effects • Anticipates what might go wrong and any unintended adverse effects • Explains contingency planning • Flexibly matches communication style to audience • Makes sound cost-benefit judgements about the resources required to ensure the security of the burn.
<p>Demonstrate self-awareness</p> <p><i>The ability to monitor stress and fatigue,</i></p>	Monitor and manage self for symptoms of stress and fatigue	<ul style="list-style-type: none"> • Understands how stress and fatigue can manifest themselves both in the planning and operational phases of prescribed burning • Develop effective strategies to manage psychological and physiological demands • Employ strategies to identify and manage personal limitations and impact of biases • Manage emotion and display empathy 	<ul style="list-style-type: none"> • Maintains focus and remains grounded when under pressure • Uses coping strategies to manage under a range of conditions • Self-regulates emotions under the pressure of challenging circumstances • Monitors self-behaviour and its impact on others

Area of Capability	Capability	Incident Management Capability	Behavioural Indicators
<i>display resilience and agility, and reflect and adjust to feedback</i>	Display resilience and agility	<ul style="list-style-type: none"> Adapt and overcome adversity Withstand critical scrutiny of actions from the community, particularly when things go wrong Employ personal strategies to operate effectively in challenging conditions to maintain well-being Respond to pressure and setbacks whilst remaining focused on objectives and outcomes 	<ul style="list-style-type: none"> Accepts scrutiny of actions as an expected part of planning and conducting burns Appropriately manages political, organisational and operational pressures Copes with flux, the unexpected and incomplete information Recovers quickly from setbacks and perseveres to get things done despite difficulties Is flexible when faced with sub-optimal or novel conditions and improvises in response Accepts that things do go wrong and sometimes there are limits to what can be controlled Acts promptly to signs that action is not producing the desired outcomes Responds appropriately to adverse community feedback Manages the pressures of community discontent with negative impacts Appropriately seeks support to manage the pressures of negative community reactions
	Recognise own strengths and limitations	<ul style="list-style-type: none"> Identify where seeking support would enhance outcomes Recognise and monitor personal limitations and biases Critically reflect on and identify areas of self-improvement in action and in review 	<ul style="list-style-type: none"> Identifies gaps in personal capability and seeks support where required Appreciates limitations and avoids arrogance and hubris Accepts feedback or criticism and adjust appropriately and objectively Objectively evaluates what went well and what did not Critically reflects on own performance and takes responsibility Demonstrates learning from feedback and experience Seeks opportunities to extend knowledge, skills and experience Enacts plans for continued professional development

Area of Capability	Capability	Incident Management Capability	Behavioural Indicators
Apply technical skills / knowledge	Apply appropriate legislation, policy and procedures	<ul style="list-style-type: none"> • Explain, appropriately interpret, and apply relevant legislation, policies and doctrine • Lead, manage and operate within legislative and governance frameworks • Act in alignment with policies supporting decision making such as location and extent of burning 	<ul style="list-style-type: none"> • Can explain, appropriately interpret, and apply legislation, policies and doctrine relevant to the jurisdiction • Understands State and agency legislative, policy and procedural requirements for the jurisdiction the burn is taking place in. • Completes all documentation required including post-burn assessment of strategic objectives.
	Manage operations at a burn in accordance with AIIMS doctrine	<ul style="list-style-type: none"> • Apply AIIMS to manage the burn • Lead, manage and operate to Incident Management Systems principles and structures 	<ul style="list-style-type: none"> • Appropriately applies AIIMS to manage the burn
	Manage a burn that is transitioning from prescribed to escaped	<ul style="list-style-type: none"> • Ability to transition from planned operation into multi-agency emergency response • Understand how emergency management arrangements will apply in the event of an escape • Communicates with other stakeholders to secure transition of control where required 	<ul style="list-style-type: none"> • Plans for contingencies in the event of a burn escape, activates contingency plans during the operational phase and transitions into emergency response if contingencies fail
	Demonstrate understanding of broader stakeholder EM arrangements	<ul style="list-style-type: none"> • Recognise organisational capabilities and limitations of stakeholders • Understand the application of multi-organisational arrangements 	<ul style="list-style-type: none"> • Works within the organisational and multi-organisational context • Applies jurisdictional multi-agency arrangements
	Demonstrate understanding available systems and technologies	<ul style="list-style-type: none"> • Recognise and deploy appropriate systems and technologies in support of the planning and operational phases of the burn • Understand the strengths and limitations of systems and technologies 	<ul style="list-style-type: none"> • Selects and uses technologies appropriate to the planning and operational needs and objectives of the burn

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<p>Employ expertise in Hazard Specific Knowledge</p>	<p>Prescribed Fire, and fire behaviour</p>	<ul style="list-style-type: none"> • Use specialist understanding of the risks and behaviours of hazards • Employ expertise in hazard-specific knowledge including understanding the behavioural characteristics and the risks that the hazard poses. • Predict changes to fire behaviour and making strategic and tactical changes to complex prescribed burn operations in response to those changes <p>Critical Burn Incident Controller capabilities include:</p> <ul style="list-style-type: none"> • A high level understanding of fire in the landscape and risks associated with lighting a fire and is able to make a sound judgement to proceed with ignition. • Hazard-specific knowledge and experience is essential • Fire behaviour and the limitations of fire prediction models • Fire weather and key conditions which might threaten burn security • Control line construction, effectiveness and performance under the forecast weather conditions • Interpretation of burn objectives and the ability to translate this into weather and fire behaviour requirements • Understand environmental impacts of burn planning, pre-burn works and burn operations and minimise impacts to the environment. 	<ul style="list-style-type: none"> • Applies Burn Risk Assessment Tools as a risk management strategy • Employs high level understanding of ignition patterns and the influence they will have on fire behaviour under the forecast weather conditions. • Uses hazard specific knowledge to inform their planning and management of the incident • Uses smoke modelling and forecast weather conditions to minimise the impact on agriculture, business and the community. • Understands fire weather and able to interpret forecast products and comprehend implications for fire behaviour until the burn is declared safe. • Monitors the landscape and fuel drying indicators to determine suitable conditions. • Confirms theoretical knowledge with practical field evidence – conducts a test burn and monitors fire behaviour against predictions. • Pays attention to safety zones and escape routes at all times during the burn implementation phase