



National
Operational
Guidance

Training specification

Environmental protection



NFCC
Fire Central
Programme Office

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Hazard - Fire water run-off

Knowledge and understanding

Hazard	Learning outcome
Fire water run-off	Understand all associated hazard knowledge



Control measure - Controlled burning

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Controlled burning	Understand: <ul style="list-style-type: none">• Why a controlled burn may limit the impact on the environment• When a controlled burn can be considered• The need to seek specialist advice and from whom• The effects of using positive pressure ventilation to accelerate a controlled burn• The techniques used to introduce an accelerated control burn• The techniques that can be used in conjunction with a controlled burn

Practical application



Control measure element

Learning outcome

Controlled burning

Demonstrate the ability to:

- Use equipment to accelerate burning in line with service procedures
- Protect surroundings during a controlled burn



Control measure - Containment

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Containment

Understand:

- The need for containment of polluting liquids including fire water run-off
- When containment tactics should be implemented
- The hierarchy of containment tactics and equipment
- How to identify site drainage
- The importance of drainage plans
- The difference between discharges to surface and foul water
- How to identify an oil separator and pollution control features

Practical application

Control measure element

Learning outcome

Containment

Demonstrate the ability to:

- Apply the environmental protection hierarchy to contain fire water run-off and other polluting liquids
- Communicate risk information to relevant agencies



Control measure - Recycling

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Recycling	<p>Understand:</p> <ul style="list-style-type: none">• The effects of recycling fire water run-off• That materials within concentrated fire water run-off may preclude its use as an extinguishing agent• The need to seek advice when disposing of recycled fire water run-off• The health risks associated with fire water run-off

Practical application

Control measure element	Learning outcome
Recycling fire water run-off	<p>Demonstrate the ability to:</p> <ul style="list-style-type: none">• Use appropriate equipment when recycling fire water run-off• Apply appropriate techniques for recycling fire water run-off• Use appropriate control measures to mitigate the effects of fire water run-off• Apply an appropriate process for disposal of concentrated fire water run-off



Control measure - Reduction



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Reduction	<p>Understand:</p> <ul style="list-style-type: none"> • How to reduce the amount of firewater run-off at an incident • How to use tactics to reduce fire water run-off without increasing the risk of fire spread or affecting safety
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Practical application

Control measure element

Learning outcome

Using reduced quantities of water at an incident	<p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> • Apply a reduced 'use of water' strategy without significantly increasing risk of fire spread <p>Refer to Control measure – Controlled burn Refer to National Occupational Guidance: Fires and firefighting- Select the appropriate firefighting technique</p>
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Control measure - Disposal

TRAINING SPECIFICATION

Knowledge and understanding



**Control measure
element**

Learning outcome

Disposal

Understand:

- The requirement to dispose of pollutants including fire water run-off produced at an incident legally and responsibly
- How to identify who is responsible for the disposal of waste at an incident
- The options available to a fire and rescue service to dispose of waste produced at an incident
- The need to inform relevant authorities as early as practicable

Practical application

Control measure element

Learning outcome

Disposing of fire water run-off

Demonstrate the ability to:

- Identify and communicate with the person responsible for disposal of fire water run-off
- legally and responsibly dispose of fire water run-off



Control measure - Operational risk information plan

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Operational risk information plan

Understand:
• How to use an environmental risk assessment within operational risk plans
• The actions necessary when a risk to the environment has been identified
Refer to Incident command training specification – Situational awareness

Practical application

Control measure element

Learning outcome

Operational risk information plan

Demonstrate the ability to:
• Identify pollution prevention information from site specific plans
• Implement environmental protection measures identified in operational risk plans
• Monitor and minimise the impact of fire service tactics on the identified environmental risk
• Assess and monitor the effectiveness of fixed installations and pollution prevention measures



Control measure - Site-Specific Risk Information (SSRI)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Site-Specific Risk Information Plan

Refer to Operations training specification



Practical application

Control measure element

Learning outcome

Site-Specific Risk Information Plan

Refer to Operations training specification



Control measure - Emergency response plans

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Emergency response plans

Refer to Operations training specification

Practical application

Control measure element

Learning outcome

Emergency response plans

Refer to Operations training specification



Hazard - Firefighting with foam

Knowledge and understanding

Hazard

Learning outcome

Firefighting with foam

Understand all associated hazard knowledge



Control measure - Containment (Foam)



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Prevention of foam other firefighting additives from entering surface and ground water

Understand:

- Why foam should not be allowed to enter water bodies, sewers and oil separators
- That the appropriate agencies may need to be informed when foam is used

Refer to [Hazard – Fire water run-off](#)

Practical application

Control measure element

Learning outcome

Containment (Foam)

Demonstrate the ability to:

- Apply methods of preventing foam run-off entering surface water and groundwater



Control measure - Substitution

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Substitution

Understand:

- The need to consider alternatives to foam prior to application
- Alternative types of firefighting media that reduce environmental impact



Practical application

Control measure element

Learning outcome

Substitution

Demonstrate the ability to:

- Use alternative application methods and extinguishing media where appropriate and available



Control measure - Reduction

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Reduction

Understand:

- How to reduce the amount of firewater run-off at an incident
- How to use tactics to reduce fire water run-off without increasing the risk of fire spread or affecting safety

Practical application

Control measure element

Learning outcome

Using reduced quantities of water at an incident

Demonstrate the ability to:

- Apply a reduced 'use of water' strategy without significantly increasing risk of fire spread

Refer to [Control measure – Controlled burn](#)

Refer to [National Occupational Guidance: Fires and firefighting- Select the appropriate firefighting technique](#)



Control measure - Disposal



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Disposal

Understand:

- The requirement to dispose of pollutants including fire water run-off produced at an incident legally and responsibly
- How to identify who is responsible for the disposal of waste at an incident
- The options available to a fire and rescue service to dispose of waste produced at an incident
- The need to inform relevant authorities as early as practicable

Practical application

Control measure element

Learning outcome

Disposing of fire water run-off

Demonstrate the ability to:

- Identify and communicate with the person responsible for disposal of fire water run-off
- legally and responsibly dispose of fire water run-off



Control measure - Operational risk information plan

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Operational risk information plan	<p>Understand:</p> <ul style="list-style-type: none"> • How to use an environmental risk assessment within operational risk plans • The actions necessary when a risk to the environment has been identified <p>Refer to Incident command training specification – Situational awareness</p>
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Practical application

Control measure element

Learning outcome

Operational risk information plan	<p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> • Identify pollution prevention information from site specific plans • Implement environmental protection measures identified in operational risk plans • Monitor and minimise the impact of fire service tactics on the identified environmental risk • Assess and monitor the effectiveness of fixed installations and pollution prevention measures
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Hazard - Smoke plumes

Knowledge and understanding

Hazard

Learning outcome

Smoke plumes

Understand all associated hazard knowledge



Control measure - Controlled burning



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Controlled burning

Understand:

- Why a controlled burn may limit the impact on the environment
- When a controlled burn can be considered
- The need to seek specialist advice and from whom
- The effects of using positive pressure ventilation to accelerate a controlled burn
- The techniques used to introduce an accelerated control burn
- The techniques that can be used in conjunction with a controlled burn

Practical application

Control measure element

Learning outcome

Controlled burning

Demonstrate the ability to:

- Use equipment to accelerate burning in line with service procedures
- Protect surroundings during a controlled burn



Control measure - Extinguish

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Extinguish

Understand:

- The effects of using large volumes of water on the environment and impact of depleting bodies of water
- When to contact the relevant environmental agency at incidents
- The decision-making process when determining to extinguish or implement a controlled burn

Practical application

Control measure element

Learning outcome

Extinguish

Demonstrate the ability to:

- Request technical advice to establish appropriate extinguishing factors

Refer to [Fires and firefighting training specification](#)

Refer to Hazardous materials training specification



Control measure - Removal or separation

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Removal or separation

Understand:

- Why the application of extinguishing media may be ineffective to stacked materials

Practical application



Control measure element

Learning outcome

Removal or separation of materials

Demonstrate the ability to:

- Apply operational tactics to remove and/or separate burning materials



Control measure - Air quality cell function

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Air quality cell function

Understand:

- The function of an air quality cell and when it will be activated

Practical application

Control measure element

Learning outcome

Air quality cell function

Demonstrate the ability to:

- Identify and instigate appropriate arrangements to monitor air quality



Control measure - Operational risk information plan

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Operational risk information plan

Understand:

- How to use an environmental risk assessment within operational risk plans
- The actions necessary when a risk to the environment has been identified

Refer to Incident command training specification – Situational awareness

Practical application

Control measure element

Learning outcome

Operational risk information plan

Demonstrate the ability to:

- Identify pollution prevention information from site specific plans
- Implement environmental protection measures identified in operational risk plans
- Monitor and minimise the impact of fire service tactics on the identified environmental risk
- Assess and monitor the effectiveness of fixed installations and pollution prevention measures



Hazard - Polluting materials

Knowledge and understanding

Hazard

Learning outcome

Polluting materials

Understand all associated hazard knowledge



Control measure - Access to specialist advice



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Using specialist advice to mitigate the effects of polluting materials

Learning outcome

Understand:

- The specialist assistance available at incidents

- How to access specialist advice

Refer to [Incident command training specification](#)

Practical application

Control measure element

Using specialist advice to mitigate the effects of polluting materials

Learning outcome

Demonstrate the ability to:

- Identify and instigate service protocols to access specialist advice and information

- Use specialist advice to assist the formulation of a tactical plan

Refer to [Incident command training specification](#)



Control measure - Containment

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Containment

Understand:

- The need for containment of polluting liquids including fire water run-off
- When containment tactics should be implemented
- The hierarchy of containment tactics and equipment
- How to identify site drainage
- The importance of drainage plans
- The difference between discharges to surface and foul water
- How to identify an oil separator and pollution control features

Practical application

Control measure element

Learning outcome

Containment

Demonstrate the ability to:

- Apply the environmental protection hierarchy to contain fire water run-off and other polluting liquids
- Communicate risk information to relevant agencies



Control measure - Dilution

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Diluting polluting materials

Understand:

- Appropriate containment and dilution of polluting materials
- Refer to [Environmental Protection Handbook](#)
Refer to [Hazard – Fire water run-off](#)



Practical application

Control measure element	Learning outcome
Diluting polluting materials	Demonstrate the ability to: <ul style="list-style-type: none">• Consult the appropriate authority prior to diluting materials• Contain and/or dilute pollutant materials in an appropriate manner



Control measure - Absorption

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Absorption/Adsorption	Understand: <ul style="list-style-type: none">• Which materials are suitable for use as sorbent materials• The use of appropriate sorbent materials to contain spillages• How to safely and responsibly dispose of absorbent materials

Practical application

Control measure element	Learning outcome
Absorption	Demonstrate the ability to: <ul style="list-style-type: none">• Use appropriate absorbent materials to contain spillages• Carry out the safe and responsible disposal of absorbent materials



Control measure - Transportation



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Transportation of pollutants

Understand:

- Service procedure for the safe transportation of pollutants

Practical application

Control measure element

Learning outcome

Transportation of pollutants

Demonstrate the ability to:

- Apply service procedure to safely transport pollutant materials



Control measure - Aeration

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Aeration

Understand:

- Methods of increasing oxygen levels in bodies of water

Refer to [Control measure – Access to specialist advice](#)

Practical application



**Control measure
element**

Learning outcome

Aeration

Demonstrate the ability to:
• Liaise and communicate relevant information with specialist advisers, when aeration is to be used



Control measure - Treatment

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Treatment

Understand:
• The use of fire service equipment to assist environment agencies
Refer to [Control measure – Access to specialist advice](#)

Practical application

**Control measure
element**

Learning outcome

Treatment

Demonstrate the ability to:
• Liaise and communicate relevant information when service resources are to be used for treatment of pollution



Control measure - Disposal

TRAINING SPECIFICATION



Knowledge and understanding

Control measure element

Learning outcome

Disposal

Understand:

- The requirement to dispose of pollutants including fire water run-off produced at an incident legally and responsibly
- How to identify who is responsible for the disposal of waste at an incident
- The options available to a fire and rescue service to dispose of waste produced at an incident
- The need to inform relevant authorities as early as practicable

Practical application

Control measure element

Learning outcome

Disposing of fire water run-off

Demonstrate the ability to:

- Identify and communicate with the person responsible for disposal of fire water run-off
- legally and responsibly dispose of fire water run-off



Control measure - Decontamination

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Decontamination of equipment and personnel

Understand:
• The benefits of decontaminating equipment at the incident
• The use of specialist advice when choosing appropriate means of decontamination
Refer to hazardous materials training specification

Practical application

Control measure element

Learning outcome

Decontamination of equipment and personnel

Demonstrate the ability to:
• Apply appropriate techniques to decontaminate equipment
• Apply appropriate techniques to decontaminate the public
• Apply appropriate techniques to decontaminate responders
• Use specialist advice when choosing appropriate means of decontamination
Refer to Hazardous materials training specification



Hazard - Physical damage to the environment

Knowledge and understanding

Hazard

Learning outcome

Physical damage to the environment

Understand all associated hazard knowledge





Control measure - Defined pathways and tracks

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Defined paths and tracks	Understand: <ul style="list-style-type: none">• The impact of firefighting activities on the environment at conservation sites• Route planning considerations• The correct use of equipment storage sites• The need to use defined paths and tracks

Practical application

Control measure element	Learning outcome
Use clearly defined routes in protected areas	Demonstrate the ability to: <ul style="list-style-type: none">• Risk assess safe routes to incidents considering:<ul style="list-style-type: none">• Suitability for fire service vehicle• Limit damage to site



Control measure - Liaison with conservation bodies

TRAINING SPECIFICATION

Knowledge and understanding



Control measure element

Learning outcome

Suitable liaison to protect the environment

Understand:
• The need to seek advice from land owners and conservation bodies in areas of nature conservation

Practical application

Control measure element

Learning outcome

Liaison with conservation bodies

Demonstrate the ability to:
• Liaise and gather relevant information from conservation bodies



Control measure - Operational risk information plan (Nature conservation sites)

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Operational risk information plan

Understand:
• The use of generic action plans at nature conservation sites
Refer to [Hazard – Fire water run-off](#)

Practical application

Control measure element

Learning outcome

Risk information pre-planning

Refer to [Hazard – Fire water run-off](#)



Control measure - Site-Specific Risk Information Plan

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Site-Specific Risk Information Plan	Refer to Operations training specification

Practical application

Control measure element	Learning outcome
Site-Specific Risk Information Plan	Refer to Operations training specification



Control measure - Emergency response plans

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Emergency response plans	Refer to Operations training specification

Practical application

Control measure element	Learning outcome
Emergency response plans	Refer to Operations training specification



Hazard - Leaks from high pressure pipe lines

Knowledge and understanding

Hazard	Learning outcome
Leaks from high pressure pipe lines	Understand all associated hazard knowledge



Control measure - Containment

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
Containment	Understand: <ul style="list-style-type: none">• The need for containment of polluting liquids including fire water run-off• When containment tactics should be implemented• The hierarchy of containment tactics and equipment• How to identify site drainage• The importance of drainage plans• The difference between discharges to surface and foul water• How to identify an oil separator and pollution control features

Practical application



Control measure element

Learning outcome

Containment

Demonstrate the ability to:

- Apply the environmental protection hierarchy to contain fire water run-off and other polluting liquids
- Communicate risk information to relevant agencies



Control measure - Diversion

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Diversion

Understand:

- The need to consult on pollutant diversion strategies with relevant agencies
- The use of sacrificial areas

Practical application

Control measure element

Learning outcome

Diversion

Demonstrate the ability to:

- Identify sacrificial areas
- Use appropriate materials and equipment to divert pollutants



Control measure - Operational risk information plan



TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Operational risk information plan

Understand:

- How to use an environmental risk assessment within operational risk plans
- The actions necessary when a risk to the environment has been identified

Refer to Incident command training specification –
Situational awareness

Practical application

Control measure element

Learning outcome

Operational risk information plan

Demonstrate the ability to:

- Identify pollution prevention information from site specific plans
- Implement environmental protection measures identified in operational risk plans
- Monitor and minimise the impact of fire service tactics on the identified environmental risk
- Assess and monitor the effectiveness of fixed installations and pollution prevention measures