

NFIRS 5.0 Self Study Program
Fire Module: NFIRS 2

Objectives

After completing the Fire Module the student will be able to:

1. Describe when the Fire Module is to be used.
2. Demonstrate how to complete various sections of the Fire Module given scenarios of hypothetical incidents.

Pre-Test #2 - Fire Module

1. The Fire Module should be completed for all fire in a structure.
 - (a) True
 - (b) False

2. The Fire Module is a required NFIRS module.
 - (a) True
 - (b) False

3. The Wildland Fire Module can be used in place of the Fire Module for certain incident types.
 - (a) True
 - (b) False

4. The Fire Module should be completed for outside rubbish fires with no casualties or property loss.
 - (a) True
 - (b) False

5. The Fire Module is used to document detector performance.
 - (a) True
 - (b) False

*Using The
Fire Module*

Using The Fire Module

The inset labeled, "Fire Module Required?" in the Remarks section (Block L) of the Basic Module will tell you if you need to use the Fire or other modules. The Fire Module is used for all fires except for those contained fires with incident type codes 113-118 unless the contained fire has associated injuries, deaths, or property loss, and outside rubbish fires codes 150-155. Use the Fire Module to record information on incidents involving fires, including building fires, outside storage fires, vehicle fires and larger vegetation fires. The Wildland Fire Module can also be used for vegetation and other outside fires as a second option.

Section A

**Section A: FDID, State, Incident Date, Station,
Incident Number, Exposure Number**

Complete this side for all fires						<input type="checkbox"/> Delete	NFIRS - 2 Fire
A	FDID ☆	State ☆	Incident Date ☆ <small>MM DD</small>	Station	Incident Number ☆	Exposure ☆	

The information in Section A of the Fire Module is drawn from Section A of the Basic Module. It can be used to recall the incident from the computer program or to print a hard copy of the incident. In an automated system, some systems may allow you to enter the data elements one time and it will automatically fill in all fields where that information is required. When using hard copies you will have to enter the Section A information for every form.

Section B

Section B: Property Details

B Property Details	
B₁	<input type="text"/> <input type="checkbox"/> Not Residential Estimated number of residential living units in building of origin <i>whether or not all units became involved</i>
B₂	<input type="text"/> <input type="checkbox"/> Buildings not involved Number of buildings involved
B₃	<input type="text"/> , <input type="text"/> <input type="checkbox"/> None Acres burned (outside fires) <input type="checkbox"/> Less than one acre

Block B₁

Block B₁ records data regarding the number of residential living units in the building of origin. The total number of units must be entered without regard to how many actually became involved in the incident.

- For apartment buildings, condominiums, townhouses, and row houses, enter the number of separately owned or rented units.
- For hotels, motels, and the like, enter the number of lodging units.
- If it is not a residential unit, simply mark the “Not Residential” box.

The recording of the number of living units allows for improved data analysis. Previously a range of apartment units were available as choices. Now if building or fire code developers modify the requirements for apartments (i.e., requiring sprinklers in buildings with fewer dwelling units) the analysis can still be easily done.

Block B₂

Enter the total number of buildings involved in the fire in Block B₂ for the initial fire. This field is not completed on exposure reports. Each exposure is numbered sequentially starting at 001. For outside fires that also consume buildings, exposure reports should be completed. If no buildings were involved, check the “Buildings not involved” box.

Block B₃

B₃ has space to record the number of acres burned in an outside fire. Two boxes are available - one to indicate "None" and the other to specify "Less than one acre". This should be your best estimate.

For large outside fires, the department may choose to use the Wildland Module: NFIRS 8 instead of the Fire Module: NFIRS 2.

Section C

Section C: On-Site Materials or Products

C On-Site Materials or Products	<input type="checkbox"/> None	Complete if there were any significant amounts of commercial, industrial, energy or agricultural products or materials on the property, <i>whether or not they became involved</i>
	Enter up to three codes. Check one box for each code entered.	
	1 <input type="checkbox"/> Bulk storage or warehousing	
	2 <input type="checkbox"/> Processing or manufacturing	
3 <input type="checkbox"/> Packaged goods for sale		
4 <input type="checkbox"/> Repair or service		
1 <input type="checkbox"/> Bulk storage or warehousing		
2 <input type="checkbox"/> Processing or manufacturing		
3 <input type="checkbox"/> Packaged goods for sale		
4 <input type="checkbox"/> Repair or service		
1 <input type="checkbox"/> Bulk storage or warehousing		
2 <input type="checkbox"/> Processing or manufacturing		
3 <input type="checkbox"/> Packaged goods for sale		
4 <input type="checkbox"/> Repair or service		

On-site material (1)

On-site material (2)

On-site material (3)

If no significant amounts of commercial, industrial, agricultural, or energy products or materials are stored on this property mark the "None" box in Block C.

If any of the listed products or materials were present, whether or not they became involved, the rest of Block C should be completed.

To complete Block C, enter a code (found in the NFIRS Quick Reference Guide) for any significant amount of material stored, processed, sold, or used for providing services at the property involved. Lines are provided to identify information for up to three materials. Information is entered whether or not the material was involved in the fire.

Materials can be coded that might not ordinarily be found at a location.

Example:

A "crack house" could be coded as a residential Property Use (419) and the On-site Material could be coded as 545: Illegal drugs.

For each On-site Material entry made, you must mark one of the four boxes to the right. Mark Processing/Manufacture if the material is both stored and processed at this site. A box must be marked whenever an On-Site Material entry is made.

Section D

Section D: Ignition

D	Ignition	
D₁	<input type="text"/>	<input type="text"/> Area of fire origin ☆
D₂	<input type="text"/>	<input type="text"/> Heat source ☆
D₃	<input type="text"/>	<input type="text"/> 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin
D₄	<input type="text"/>	<input type="text"/> Type of material first ignited Required only if item first ignited code is 00 or <70

Separate lines of Block D will allow you to capture information regarding the area of fire origin, heat source, item first ignited, and type of material first ignited.

Use Line D₁ for entering a code (found in the NFIRS Handbook or in the QRG) to indicate where the fire started. The code list is organized into three areas:

- Structural
- Vehicle
- Outside

This section must be completed for all fires.

Lines D₂ and D₃ furnish spaces to enter codes for the "Heat Source" and the "Item First Ignited". **You are required to make entries on both lines.** If the fire spread was confined to object of origin check the box below line D₃. An unmarked box means that the fire spread beyond the object of origin.

Line D₄ is for recording information regarding the type of material first ignited. You should fill in this line whenever the item code first ignited is between 00 and 70.

Section E

Section E: Cause of Ignition, Factors Contributing To Ignition, Human Factors Contributing To Ignition

In combination, Sections D and E provide excellent information on how and why a fire started.

Block E₁

E₁	Cause of Ignition ☆	
<input type="checkbox"/>	Check box if this is an exposure report.	<input type="checkbox"/> Skip to Section G
1	<input type="checkbox"/> Intentional	
2	<input type="checkbox"/> Unintentional	
3	<input type="checkbox"/> Failure of equipment or heat source	
4	<input type="checkbox"/> Act of nature	
5	<input type="checkbox"/> Cause under investigation	
U	<input type="checkbox"/> Cause undetermined after investigation	

When filling out Block E₁, the first question to be answered is whether or not this is an exposure report. If it is, then check the box and go directly to Section G. Skip the rest of Sections E and all of Section F. If this is not an exposure report mark the other boxes in E₁ to indicate the cause of ignition. In previous versions of NFIRS, users were forced to decide between incendiary and suspicious. The measurement of arson fires added those two codes together. Now you are able to indicate that a fire was intentionally set without stating that a crime was committed.

You may also record the cause of a fire incident as **under investigation**. If no cause is ever determined, the cause can be changed to **undetermined after investigation**. This allows managers to better track whether an investigator has updated the incident report with the actual cause.

Block E₂

E₂	Factors Contributing To Ignition	<input type="checkbox"/> None
<input type="text"/>	Factor contributing to ignition (1)	
<input type="text"/>	Factor contributing to ignition (2)	

Use Block E₂ to record the "Factors Contributing To Ignition". Use the appropriate codes (from the Quick Reference Guide). You may note up to two factors or check the "None" box to indicate that no factors were involved.

Block E₃ offers a number of options to record human factors that contribute to the ignition of a fire. More than one factor can be marked.

Block E₃

Human Factors Contributing To Ignition	
Check all applicable boxes	<input type="checkbox"/> None
1 <input type="checkbox"/> Asleep	
2 <input type="checkbox"/> Possibly impaired by alcohol or drugs	
3 <input type="checkbox"/> Unattended person	
4 <input type="checkbox"/> Possibly mentally disabled	
5 <input type="checkbox"/> Physically disabled	
6 <input type="checkbox"/> Multiple persons involved	
7 <input type="checkbox"/> Age was a factor	
Estimated age of person involved	<input type="text"/>
1 <input type="checkbox"/> Male	2 <input type="checkbox"/> Female

The last part of E₃ can be useful in tracking juvenile firesetter trends and the effect of fire on the elderly. In this field mark the "Age was a factor" box when there is evidence that age was a factor in ignition. Then enter the estimated age of the person involved, and whether the person is male or female.

Section F

Section F: Equipment Involved in Ignition, Equipment Power, Equipment Involved in Ignition, Fire Suppression Factors

The compound codes used in previous versions of NFIRS have been eliminated. This should make data entry in this section easier for you.

First answer the question, “Is there equipment involved in this ignition.” Equipment involved is a piece of equipment that provided the principal heat source to cause ignition, by malfunctioning or being used improperly. If the answer is no, then check the “None” box and go directly to Section G.

If you do not mark the “None” box you must complete the rest of the Block F₁.

Block F₁

F₁ Equipment Involved In Ignition	
<input type="checkbox"/> None	➔ If equipment was not involved, skip to Section G
_____	_____
Equipment Involved	
Brand	_____
Model	_____
Serial #	_____
Year	_____

Block F₁ has a line for you to enter a code description which best identifies the equipment involved in the ignition. To quickly find the correct code select a subsection from the following choices:

- Heating, Ventilating & Air Conditioning
- Electrical Distribution, Lighting and Power Transfer
- Shop Tools & Industrial Equipment
- Commercial & Medical Equipment
- Garden Tools & Agricultural Equipment
- Kitchen & Cooking Equipment

- Electronic Equipment
- Personal & Household Equipment: Other

Enter the brand name, model name/number, serial number, and model year of the equipment involved, if known, on the lines provided.

Block F₂

F₂	Equipment Power Source
<input type="text"/>	<input type="text"/>
Equipment Power Source	

Block F₂ asks for a code that describes the power source of the equipment involved with the fire ignition. Examples are: gas, liquid fuels, solid fuels, and electrical. When combined with other factors in the ignition sequence, the power source can help identify the cause of the fire.

Block F₃

F₃	Equipment Portability
1	<input type="checkbox"/> Portable
2	<input type="checkbox"/> Stationary
<small>Portable equipment normally can be moved by one person, is designed to be used in multiple locations, and requires no tools to install.</small>	

Fill in Block F₃ by indicating whether the equipment involved in the ignition was portable or stationary. Portable equipment has three characteristics.

1. It can be moved by one person,
2. Is designed to be used in multiple locations, and
3. Requires no tools to install.

Equipment portability is another factor to be considered in determining the cause of a fire.

Section G

Section G: Fire Suppression Factors

G Fire Suppression Factors	
Enter up to three codes.	<input type="checkbox"/> None
<input type="text"/>	<input type="text"/>
Fire suppression factor (1)	
<input type="text"/>	<input type="text"/>
Fire suppression factor (2)	
<input type="text"/>	<input type="text"/>
Fire suppression factor (3)	

Lines are provided to collect information regarding conditions or factors that affected the fire suppression effort or fire management decisions. If no condition or factor had an effect, mark the "None" box. Enter codes (found in NFIRS Handbook or QRG) for up to three factors or conditions that constituted a significant suppression problem during the incident or might be a fire prevention problem in the future.

Example: The first-due engine company was delayed due to "trouble finding location after incorrect information" (424) was given by the dispatcher.

Section H

Section H: Mobile Property Involved In Ignition

H1 Mobile Property Involved		H2 Mobile Property Type & Make	
<input type="checkbox"/> None			
1 <input type="checkbox"/> Not involved in ignition, but burned	➔	<input type="text"/>	<input type="text"/>
2 <input type="checkbox"/> Involved in ignition, but did not burn		Mobile property type	
3 <input type="checkbox"/> Involved in ignition and burned		<input type="text"/>	<input type="text"/>
		Mobile property make	
<input type="text"/>		<input type="text"/>	<input type="text"/>
Mobile property model		Year	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
License Plate Number	State	VIN Number	
Structure fire? Please be sure to complete the other side of this form.			

Block H₁ has four boxes that can be marked to indicate the involvement of mobile property in an ignition. If no such property is involved, Mark the “None” box. When mobile property is involved, you will need to mark Box 1, 2, or 3 to clarify the type of involvement.

Example: If the wheel rim on a car with a flat sends a spark that starts a grass fire but the car does not burn, Box 2 would be marked.

If Boxes 2 or 3 are marked, you must fill out Section H₂. H₂ uses codes to identify the type of mobile property involved. The codes are organized into categories for ground, rail, air, and water vehicles.

NOTE: When mobile property is used as a fixed building instead of transportation, check the "Not Involved" box and skip the rest of Section H. In this situation the Structure Fire Module would be completed.

Codes are also used to indicate the make of the mobile property. The code list includes most vehicles. If the make you need is not found, use code 00 and enter the name of make on the line provided. If known, enter the model name and four-digit year of the mobile property involved.

If the mobile property has a license plate, enter the plate number and the two-letter abbreviation of the state, province, or territory of the plate (or registration) on the appropriate lines. Refer to the Abbreviations Section of the NFIRS Handbook or QRG for a list of State, Province, and Territory abbreviations. Enter the Vehicle Identification Number (VIN) as indicated.

The last block of Section H can be used as a local option. A box exists to indicate whether a pre-fire plan is available for the address of the incident.

Local Use

Local Use

<p>Local Use</p> <p><input type="checkbox"/> Pre-Fire Plan Available Some of the information presented in this report may be based upon reports from other agencies:</p> <p><input type="checkbox"/> Arson report attached <input type="checkbox"/> Police report attached <input type="checkbox"/> Coroner report attached <input type="checkbox"/> Other reports attached</p> <p>_____ _____ _____</p> <p>NFIRS-2 Revision 01/19/99</p>

Typically a plan of attack or a pre-fire plan is developed by firefighters before a fire is experienced at significant structures. Then the plan is referenced during the emergency. Some of the information presented in a report may be based upon reports from other agencies. Mark the box that corresponds to the report type to indicate which other agency reports are attached to the incident report.

Summary

SUMMARY

The Fire Module is used for any fire that extends beyond a non-combustible container. It is applicable for a vehicle fire, building fire, or vegetation (grass) fire unless the Wildland Fire Module is used. The Fire Module can be used in conjunction with the Structure Fire Module, when appropriate, to provide a more complete picture of what happened. Completing the Fire Module collects details about the property involved. Details provided in the Structure Fire Module provide clear information about the buildings involved in the fire, how the fire started, and detection and suppression equipment present.

EXAMPLE - DWELLING FIRE

Directions: Read the call information in the example below. Then look at the completed Fire Module Form. Look at each section and follow along with the proper use of the information as applicable to the Fire Module.

Department FDID#TR300 is called at 0156 hours to respond to a fire in a single- family dwelling. The first unit, Engine 3, arrives at 0200 and discovers heavy smoke and fire coming from the house.

A family of four occupied the house: a father, a mother, and two children, ages 3 and 7. Two crew members from Engine 3 conducted a primary search for victims, located the family in bedrooms on the second floor, and rescued all the family members from the structure.

The rest of the crew brought a hose line into the house. The fire was confined to the first floor, brought under control, and extinguished at 0215. There was significant fire damage to two rooms: (1) the kitchen, where the fire originated from a defective cooking devise which ignited a fire that went up a wall, and (2) the dining room. The incident number was #9900332.

EXERCISE SCENARIO 2-1: LAUNDROMAT FIRE

Directions: Read the call information in the exercise below. Use the information provided to complete the Fire Module form. Compare your work to the answers provided on the subsequent completed Fire Module form. If your answers are different from the ones provided, read over the Fire Module again.

On July 1, 2002 at 1338 hours, Fire Department FDID #TR100 responded to a call from a policemen who observed heavy smoke in a laundromat in a multiple-use commercial structure. Engine 2 arrived at 1400 hours, and immediately called for a second alarm. The other businesses in the structure were occupied and the laundromat was open for business but no one was present. A lumber supply company was located next to the structure. The laundromat was 50% involved with smoke and heavy visible fire. The fire service personnel on the scene conducted a primary search for victims, found none. They evacuated all employees in the other offices; performed horizontal ventilation at the site of the fire, protected the exposure in the adjacent office and at the lumberyard. The fire was extinguished at 1430 hours. The fire was caused by flammable fibers caught in an improperly ventilated natural gas clothes drier, a GCM Model 1992G, Serial Number 688599332C. There was extensive damage to the laundromat. Most equipment and all of the furniture were destroyed. The incident was reported as #211.

**NFIRS 5.0 SELF STUDY PROGRAM
FIRE MODULE: NFIRS 2**

Complete this side for all fires

A FDID State Incident Date Station Incident Number Exposure Delete Change **NFIRS - 2 Fire**

B Property Details

B1 Not Residential
Estimated number of residential living units in building of origin *whether or not all units became involved*

B2 Buildings not involved
Number of buildings involved

B3 , None Less than one acre
Acres burned (outside fires)

C On-Site Materials or Products None

Enter up to three codes. Check one box for each code entered.

On-site material (1) Bulk storage or warehousing
 Processing or manufacturing
 Packaged goods for sale
 Repair or service

On-site material (2) Bulk storage or warehousing
 Processing or manufacturing
 Packaged goods for sale
 Repair or service

On-site material (3) Bulk storage or warehousing
 Processing or manufacturing
 Packaged goods for sale
 Repair or service

Complete if there were any significant amounts of commercial, industrial, energy or agricultural products or materials on the property, *whether or not they became involved*

D Ignition

D1 Area of fire origin

D2 Heat source

D3 Item first ignited Check box if fire spread was confined to object of origin

D4 Type of material first ignited Required only if item first ignited code is 00 or <70

E1 Cause of Ignition Check box if this is an exposure report.

1 Intentional
 2 Unintentional
 3 Failure of equipment or heat source
 4 Act of nature
 5 Cause under investigation
 U Cause undetermined after investigation

E2 Factors Contributing To Ignition None

Factor contributing to ignition (1)

Factor contributing to ignition (2)

E3 Human Factors Contributing To Ignition

Check all applicable boxes None

1 Asleep
 2 Possibly impaired by alcohol or drugs
 3 Unattended person
 4 Possibly mentally disabled
 5 Physically disabled
 6 Multiple persons involved
 7 Age was a factor

Estimated age of person involved

1 Male 2 Female

F1 Equipment Involved In Ignition

None If equipment was not involved, skip to Section G

Equipment Involved

Brand

Model

Serial #

Year

F2 Equipment Power Source

Equipment Power Source

F3 Equipment Portability

1 Portable
 2 Stationary

Portable equipment normally can be moved by one person, is designed to be used in multiple locations, and requires no tools to install.

G Fire Suppression Factors

Enter up to three codes. None

Fire suppression factor (1)

Fire suppression factor (2)

Fire suppression factor (3)

H1 Mobile Property Involved None

1 Not involved in ignition, but burned
 2 Involved in ignition, but did not burn
 3 Involved in ignition and burned

Mobile property model

License Plate Number State VIN Number

H2 Mobile Property Type & Make

Mobile property type

Mobile property make

Year

Local Use

Pre-Fire Plan Available
Some of the information presented in this report may be based upon reports from other agencies:

Arson report attached
 Police report attached
 Coroner report attached
 Other reports attached

Structure fire? Please be sure to complete the other side of this form.

NFIRS-2 Revision 01/19/99

EXERCISE SCENARIO 2-2: VEHICLE FIRE ON I-95

Directions: Read the call information in the exercise below. Use the information provided to complete the entire Fire Module form and other required forms. Compare your work to the answers provided in Appendix A. If your answers are different from the ones provided, read over the Fire Module again.

The Alberta Fire Department (FDID 92188) responded to a vehicle fire on I-95 near mile marker 73 and Exit 2B in Brunswick, Virginia 23351 on May 3. The dispatcher assigned the incident (#5455) to Engine Co. 2 from Shift C. The unit received the alarm at 11:58 p.m. and arrived at the scene in six minutes with a four-person engine crew and a two-person truck crew. Flame and smoke was coming from the vehicle. The owner of the vehicle, Mr. Robert L. Anderson, was driving to Emporia, Virginia to return his son, Joseph, to his mother. Mr. Anderson lives at 1630 Second Avenue, Jarrett, North Carolina 24501. His telephone number is 414-432-0987. He said that his front seat caught on fire. In an effort to extinguish the fire, the car crashed into the guardrail. He called 911 from his cellular telephone. He said that he was driving for two hours and became drowsy from a prescription drug that he took. The vehicle was a 1999 Ford Explorer, Virginia License Plate Number ACZ586, and VIN 1FBEU54X3ABC45634. The firefighters extinguished the fire; it was under controlled at 12:10 a.m. They determined that a burning cigarette caused the fire. The cigarette ignited the seat causing \$26,000 property damage and no content loss to the vehicle. The last unit cleared the scene at 12:35 a.m. FF1 Steve B. LaCivita, Badge No. 230, completed the report after returning to Station No. 1. Captain Ernest Greene, Badge No. 100, was the officer in charge. The fire department keeps records on the location of all responses. The incident was in Census Tract 501.2, District A05. The Virginia Department of Transportation, 23 Washington Street NE, Richmond, VA 23219, manages Virginia highways.

Fire Module Test

1. The Fire Module is completed for:
 - (a) Fire contained to a non-combustible container with injuries
 - (b) Vehicle Fires
 - (c) Wildland Fires
 - (d) Structure Fires

2. For a wildland fire, complete the following modules
 - (a) Basic only
 - (b) Basic and wildland fire
 - (c) Basic and fire
 - (d) Basic, fire, and wildland fire

3. Bedroom and hallway are examples of this data element.
 - (a) Property Details
 - (b) Area of Fire Origin
 - (c) Factors Contributing to Ignition
 - (d) Fire Suppression Factors

4. Fog and fire doors blocks are examples of this data element.
 - (a) Fire Suppression Factors
 - (b) Cause of Ignition
 - (c) Factors Contributing to Ignition
 - (d) Comments

5. Equipment details include the following:
 - (a) Equipment Involved in Ignition
 - (b) Equipment Design
 - (c) Equipment Power
 - (d) Equipment Portability