

# NFIRS 3 - Structure Fire Module



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The Structure Fire Module should be completed for all structure fires. This includes, but is not limited to, buildings, open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported structures and grandstands.

When you see a star ★ the field is required.

# I<sub>1</sub> - Structure Type

**I<sub>1</sub> Structure Type** ☆

If fire was in an enclosed building or a portable/mobile structure, complete the rest of this form.

1	<input type="checkbox"/>	Enclosed building
2	<input type="checkbox"/>	Portable/Mobile structure
3	<input type="checkbox"/>	Open structure
4	<input type="checkbox"/>	Air-supported structure
5	<input type="checkbox"/>	Tent
6	<input type="checkbox"/>	Open platform (e.g., piers)
7	<input type="checkbox"/>	Underground structure (work areas)
8	<input type="checkbox"/>	Connective structure (e.g., fences)
0	<input type="checkbox"/>	Other type of structure

Identifies a specific property type of a structure.

If **1-Enclosed building** or **2-Portable/Mobile structure** is selected, then complete section **I<sub>2</sub> – Building Status**.

# I<sub>1</sub> - Structure Type

I <sub>1</sub> Structure Type ☆	
If fire was in an enclosed building or a portable/mobile structure, complete the rest of this form.	
1	<input type="checkbox"/> Enclosed building
2	<input type="checkbox"/> Portable/Mobile structure
3	<input type="checkbox"/> Open structure
4	<input type="checkbox"/> Air-supported structure
5	<input type="checkbox"/> Tent
6	<input type="checkbox"/> Open platform (e.g., piers)
7	<input type="checkbox"/> Underground structure (work areas)
8	<input type="checkbox"/> Connective structure (e.g., fences)
0	<input type="checkbox"/> Other type of structure

If Incident Type is

**111-Building Fire or**

**113-118 then**

**Structure Type may only be**

**1-Enclosed Building or**

**2-Portable/mobile structure**

# I<sub>2</sub> - Building Status

I <sub>2</sub>	Building Status	☆
1	<input type="checkbox"/> Under construction	
2	<input type="checkbox"/> In normal use	
3	<input type="checkbox"/> Idle, not routinely used	
4	<input type="checkbox"/> Under major renovation	
5	<input type="checkbox"/> Vacant and secured	
6	<input type="checkbox"/> Vacant and unsecured	
7	<input type="checkbox"/> Being demolished	
0	<input type="checkbox"/> Other	
U	<input type="checkbox"/> Undetermined	

Identifies the operational status of the building at the time of the incident.

# I<sub>3</sub> - Building Height

**I<sub>3</sub> Building Height** ★

Count the roof as part of the highest story.



Total number of stories at or above grade.



Total number of stories below grade.

Identifies the total number of stories (floors) at or above grade level and the total number of stories below grade in the fire building.

Count the roof as part of the highest story.

# I<sub>4</sub> - Main Floor Size

I <sub>4</sub>	Main Floor Size ☆	NFIRS-3 Structure Fire
□, □, □ Total square feet		
OR		
□, □ BY □, □ Length in feet      Width in feet		

Identifies the main floor size.

Complete either total square feet or length by width.

# J<sub>1</sub> - Fire Origin



The diagram shows a rectangular form with a black border. In the top left corner is the text 'J<sub>1</sub>'. To its right is the text 'Fire Origin' followed by a star symbol. Below 'J<sub>1</sub>' is a horizontal line with three vertical tick marks extending downwards, labeled 'Story of fire origin'. To the right of this line is a small square box followed by the text 'Below grade'.

**Identifies the story (floor level) where the fire originated within the building.**

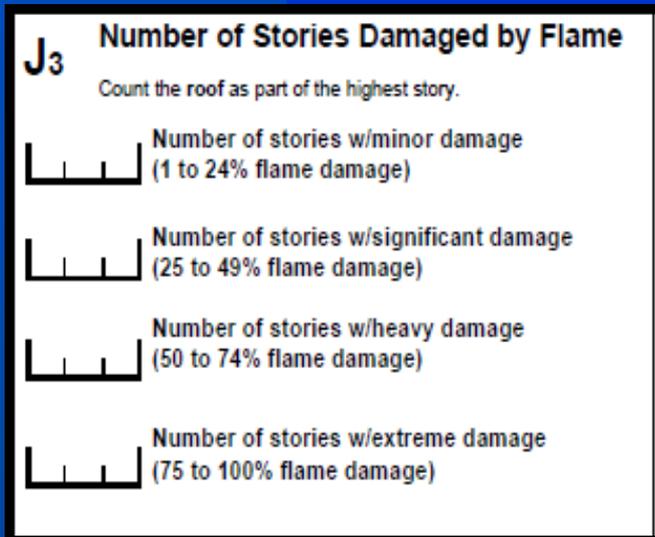
# J<sub>2</sub> - Fire Spread

<b>J<sub>2</sub></b>	<b>Fire Spread</b> ★
If fire spread was confined to object of origin, do not check a box (Ref. Block D3, Fire Module).	
2	<input type="checkbox"/> Confined to room of origin
3	<input type="checkbox"/> Confined to floor of origin
4	<input type="checkbox"/> Confined to building of origin
5	<input type="checkbox"/> Beyond building of origin

**Identifies the extent of flame damage within the structure.**

Where Fire Spread is confined to object of origin, the Fire Module - Section D3 box should be checked.

# J<sub>3</sub> - Stories Damaged by Flame



**Identifies the number of stories (floor levels) damaged by fire by percent of damage.**

**Count the roof as part of the highest story.**

**The number of stories damaged by flame cannot be larger than the number of stories in the building.**

# K - Material Contributing Most to Flame Spread

**K** Type of Material Contributing Most to Flame Spread

Check if no flame spread OR if same as Material First Ignited (Block D4, Fire Module) OR if unable to determine.  Skip to Section L

**K<sub>1</sub>**    
Item contributing most to flame spread

**K<sub>2</sub>**    
Type of material contributing most to flame spread      Required only if item contributing code is 00 or <70.

**K<sub>1</sub>** Identifies the item contributing most to flame spread, if different from the item first ignited.

**K<sub>2</sub>** Identifies the type of material contributing most to flame spread, if different than the type of material first ignited

# L<sub>1</sub> - Presence of Detectors

**L<sub>1</sub>** Presence of Detectors ☆  
(In area of the fire)

N  None Present → Skip to Section M

1  Present

U  Undetermined

Captures data on detectors if they were present in the general area of the fire.

If no detectors were present in the area of fire origin, skip to **Section M**.

If detectors were present, complete sections **L<sub>2</sub>** through **L<sub>6</sub>**

# L<sub>2</sub> - Detector Type

L <sub>2</sub>	Detector Type
1	<input type="checkbox"/> Smoke
2	<input type="checkbox"/> Heat
3	<input type="checkbox"/> Combination smoke and heat
4	<input type="checkbox"/> Sprinkler, water flow detection
5	<input type="checkbox"/> More than one type present
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

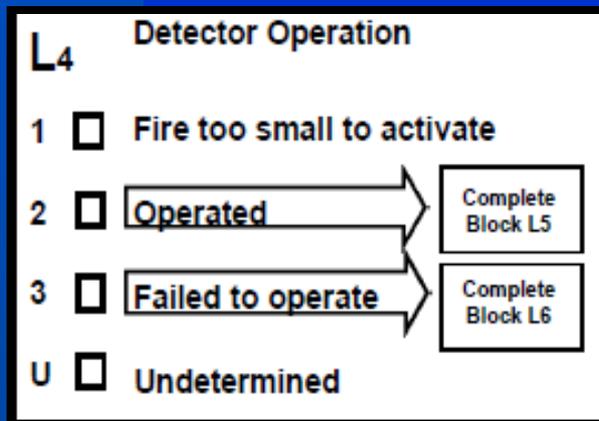
Identifies the type of fire detection system that was present in the area of fire origin.

# L<sub>3</sub> - Detector Power Supply

L <sub>3</sub>	Detector Power Supply
1	<input type="checkbox"/> Battery only
2	<input type="checkbox"/> Hardwire only
3	<input type="checkbox"/> Plug-in
4	<input type="checkbox"/> Hardwire with battery
5	<input type="checkbox"/> Plug-in with battery
6	<input type="checkbox"/> Mechanical
7	<input type="checkbox"/> Multiple detectors & power supplies
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

Identifies the type of power supplying the detector.

# L<sub>4</sub> - Detector Operation



This data element identifies whether or not the detection equipment worked.

If the detector operated, complete **Block L<sub>5</sub>**.

If the detector failed to operate, complete **Block L<sub>6</sub>**.

# L<sub>5</sub> - Detector Effectiveness

<b>L5</b>	<b>Detector Effectiveness</b> Required if detector operated.
1	<input type="checkbox"/> Alerted occupants, occupants responded
2	<input type="checkbox"/> Alerted occupants, occupants failed to respond
3	<input type="checkbox"/> There were no occupants
4	<input type="checkbox"/> Failed to alert occupants
U	<input type="checkbox"/> Undetermined

Identifies the effectiveness of the fire detection equipment in alerting the occupants.

Required if the detector operated.

# L<sub>6</sub> - Reason for Detector Failure

L <sub>6</sub> Detector Failure Reason	
	Required if detector failed to operate.
1	<input type="checkbox"/> Power failure, shutoff, or disconnect
2	<input type="checkbox"/> Improper installation or placement
3	<input type="checkbox"/> Defective
4	<input type="checkbox"/> Lack of maintenance, includes not cleaning
5	<input type="checkbox"/> Battery missing or disconnected
6	<input type="checkbox"/> Battery discharged or dead
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

**Identifies why the detector failed to operate or did not operate properly.**

**Required if the detector failed to operate.**

# M<sub>1</sub> - Presence of Automatic Extinguishment System

M <sub>1</sub> Presence of Automatic Extinguishing System ☆	
N	<input type="checkbox"/> None Present
1	<input type="checkbox"/> Present
2	<input type="checkbox"/> Partial System Present
U	<input type="checkbox"/> Undetermined

Complete rest of Section M

Identifies the presence of an automatic extinguishment system (AES).

If **AES** is present or a partial system is present, complete the rest of **Section M**.

# M<sub>2</sub> - Type of Automatic Extinguishment System

M <sub>2</sub>	Type of Automatic Extinguishing System
	Required if fire was within designed range of AES.
1	<input type="checkbox"/> Wet-pipe sprinkler
2	<input type="checkbox"/> Dry-pipe sprinkler
3	<input type="checkbox"/> Other sprinkler system
4	<input type="checkbox"/> Dry chemical system
5	<input type="checkbox"/> Foam system
6	<input type="checkbox"/> Halogen-type system
7	<input type="checkbox"/> Carbon dioxide (CO <sub>2</sub> ) system
0	<input type="checkbox"/> Other special hazard system
U	<input type="checkbox"/> Undetermined

Identifies the type of AES that was present in the area of fire origin.

Required if fire was within designed range of the AES.

# M<sub>3</sub> - Automatic Extinguishment System Operation

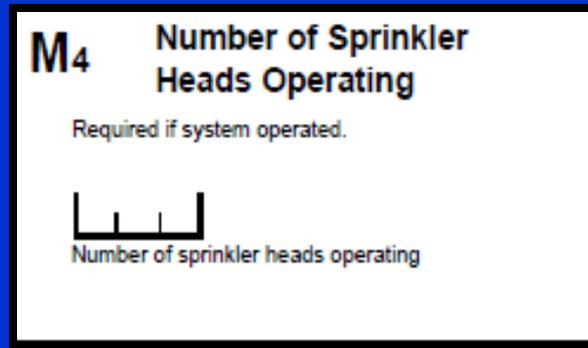
M <sub>3</sub> Operation of Automatic Extinguishing System	
Required if fire was within designed range.	
1	<input type="checkbox"/> Operated/effective (go to M4)
2	<input type="checkbox"/> Operated/Not effective (go to M4)
3	<input type="checkbox"/> Fire too small to activate
4	<input type="checkbox"/> Failed to operate (go to M5)
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

Identifies the operation and effectiveness of the AES in the area of fire origin.

If the AES operated, complete **section M<sub>4</sub>**.

If the AES failed to operate, complete **section M<sub>5</sub>**.

# M<sub>4</sub> - Number of Sprinkler Heads Operating



Identifies the number of sprinkler heads that operated during the fire.

Required is the system operated.

# M<sub>5</sub> - Automatic Extinguishment System Failure

**M<sub>5</sub> Reason for Automatic Extinguishing System Failure**

Required if system failed or not effective.

- 1  System shut off
- 2  Not enough agent discharged
- 3  Agent discharged but did not reach fire
- 4  Wrong type of system
- 5  Fire not in area protected
- 6  System components damaged
- 7  Lack of maintenance
- 8  Manual intervention
- 0  Other
- U  Undetermined

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**Identifies the reason why the AES failed to operate.**

**Required if system failed or not effective.**

# Questions?

