

December 13, 2017

Fire Chief Timothy Lemon Chelan County Fire District 7 232 East Wapato Avenue Chelan, Washington 98816

#### Fire Chief Lemon:

This letter is to update you on the status of the Washington Surveying and Rating Bureau (WSRB) recent evaluation of the fire protection capabilities, as they relate to fire insurance rating, of your community. As indicated in our August 17, 2017 letter, the current Protection Classification (PC) for Chelan is PC 6 and for the unincorporated area of Chelan County Fire District 7 is PC 8, with Fire Stations 72 and 74 rated as a PC 9 due to volunteer staffing not meeting the requirements for a PC 8 rating. It is our pleasure to inform you that the Protection Classification (PC) for Chelan County Fire District 7 has improved from Protection Class 8 to Protection Class 7 in areas that are within five-miles of a recognized fire station, effective April 1, 2018. The City of Chelan will remain a Protection Class 6

During our evaluation it was determined that Fire Stations 72 and 74 are not adequately staffed with firefighters. For volunteer fire stations to be eligible for recognition and a Protection Class rating of 8 or better, a minimum of six qualified firefighters must be assigned to the station. A Protection Class rating of 9 requires a minimum of four qualified firefighters. Assigned firefighters must reside within five road miles of the fire station they are assigned to.

Protection Class 6 will apply to dwelling and commercial properties located inside the city limits of Chelan, within five road miles of a responding fire station and having standard hydrant distribution and water supply. Protection Class 7 will apply to properties located in the unincorporated area of Chelan County Fire District 7, within five road miles of Stations 71, 73, or 75, and having standard hydrant distribution and water supply. Dwelling properties within five road miles of only Station 72 or 74 will have their rating changed to Protection Class 9A. Properties not meeting these requirements will receive a different protection class rating. Protection class ratings for individual properties are available by calling WSRB customer service at (206) 217-0101. We recommend residents of your community contact their insurance agents to determine the relative effect, if any, this new protection class will have on their insurance premiums.

WSRB supports your efforts to improve the fire insurance rating of your community. If you believe the conditions that contributed to the change in Protection Class for Station 72 and 74 have been resolved, please contact me immediately. WSRB would be happy to conduct another evaluation to update the rating.



We wish to thank you and your staff for the cooperation during the evaluation.

Please find enclosed copies of the new Protection Class Reports. This report shows the various items evaluated and points associated with each item. The points total for all items determines the Protection Class of the community.

This survey was not conducted for property loss prevention or for life safety purposes. The purpose was to gather information needed to determine a fire insurance relevant Public Protection Classification that may be used to develop fire insurance rates or loss costs. Our evaluation criteria incorporate many national recognized standards, such as those developed by NFPA and AWWA, and has been filed with and approved by the Washington State Office of Insurance Commissioner.

If you have any questions, please let us know.

Sincerely,

Kelly McGougan

Fire Protection Analyst

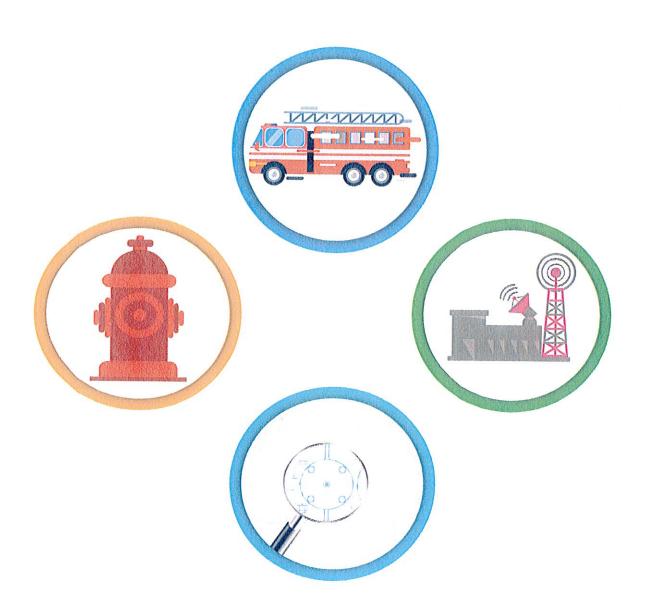
Kelly McDougan

Spokane Office 509,228.8064

kelly.mcgougan@wsrb.com

Mayor of Chelan Board of Commissioners

# Protection Class Report For: Chelan County Fire District 7





**Effective Date:** 

April 1, 2018

Washington Surveying and Rating Bureau (WSRB) is an independent, non-profit public service organization that has been serving the State of Washington since 1911.

As an information-gathering and publishing organization, WSRB is an authoritative resource for the insurance industry.

Our mission is to provide our customers with trusted information and services that enhance their decision-making and success.

One the services WSRB provides for the insurance industry is determining the Protection Class Grading of communities and the Protection Class Ratings of the individual properties in those communities. It is these Protection Class Ratings that are used by insurance companies to help determine fire insurance premiums for properties. Before the Protection Class Rating for a property can be determined, the Protection Class Grading for the community the property is located in must be determined.

WSRB determines the Protection Class Grading of cities and fire protection districts by evaluating their fire protection/suppression capabilities using a schedule approved by the Washington State Office of the Insurance Commissioner. WSRB evaluates communities in four major areas: Water Supply, Fire Department, Emergency Communications and Fire Safety Control. As a result of this evaluation the community is assigned a Protection Class Grading of 1 through 10, where 1 indicates exemplary fire protection capabilities, and 10 indicates the capabilities, if any, are insufficient for insurance rating credit.



# Water Supply

WSRB evaluates the capacity, distribution and maintenance of water systems and fire hydrants.



## Fire Department

WSRB evaluates the fire department, including fire stations, apparatus, equipment, personnel and their training.



## **Emergency Communications**

WSRB evaluates the emergency communication system used to dispatch the fire department.



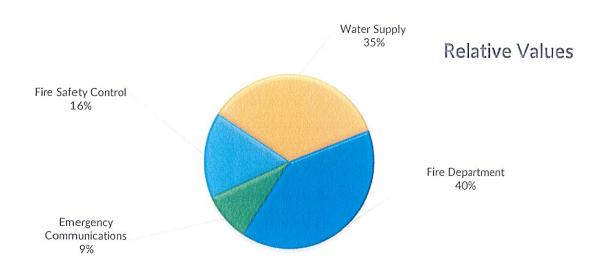
#### Fire Safety Control

WSRB evaluates the fire code enforcement and fire safety education activities in the community.

The Protection Class evaluation process recognizes the efforts of communities to provide fire-protection services for citizens and property owners. This is why insurance companies use Protection Classes to help establish fair premiums for fire insurance — generally offering lower premiums in communities with better protection. By offering economic benefits for communities that invest in their firefighting services, the evaluation provides a real incentive for improving and maintaining fire protection.

To determine a community's Protection Class, WSRB uses the 2013 version of the Community Protection Class Grading Schedule. The Grading Schedule measures the fire protection capabilities of a community by means of a point system or, for communities without a recognized water supply, by comparison with minimum criteria. Under the point system, pertinent items are evaluated against the standards set forth in the schedule and points are assigned for each deviation from these standards, depending on the importance of the item and the degree of deviation.

The four major areas considered under the point system, as well as the relative value allocated to each, are shown below.

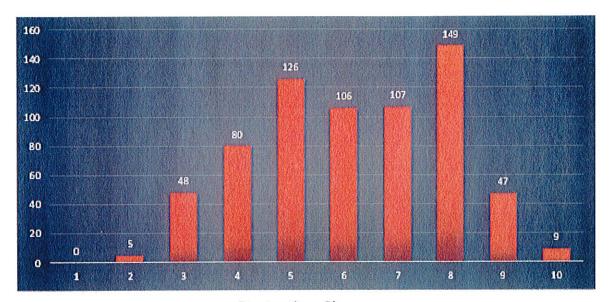


These four areas are evaluated and scored independent of each other. These scores are then combined in a final calculation to determine the Protection Class Grading for the community.

The following pages provide a point summary of all the items evaluated in the four major areas and for the final calculation to determine the Protection Class Grading for the community. The point system employed by the grading schedule is a deficiency point system with zero being the best score (100% credit). Following the point summary for each area and the final calculation is an explanation of the item, the pointed scored in each item and the percentage of credit attained for the item.

The Protection Class Grading produced by WSRB's evaluation is the overall Protection Class for the community, not the Protection Class of the all the properties located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class Grading to determine the Protection Class Rating of an individual property located within the community.

Buildings and property located within the graded community are eligible for the Protection Class of the community, but no better, if they meet the distance to fire station and applicable fire hydrant requirements. If these requirements are not met, the building will receive a different Protection Class Rating than the Protection Class Grading of the community. The chart below showes the number of communities in each Protection Class



**Protection Classes** 

#### **QUESTIONS?**

Please contact the WSRB Fire Protection Analyst that conducted the evaluation if there are any questions on the evaluation. Their contact information is located on the results letter that accompanied this report or contact WSRB at 206-217-9772 or email us at PublicProtection@wsrb.com

Please contact WSRB Customer Service at 206-217-0101 or <a href="mailto:customerservice@wsrb.com">customerservice@wsrb.com</a> if there are any questions on the Protection Class Rating for individual properties in the community. If the fire department or community officials are receiving Protection Class inquiries from insurance professionals, feel free to refer these inquiries to WSRB Customer Service.

# Final Calculation





#### FINAL CALCULATION



#### Community Protection Class Grade

#### **Summary of Points**

Sections Evaluated	Water Supply	Fire Department	Emergency Communications	Fire Safety Control
Points Scored	804	1421	145	471
Maximum Points	1450	1950	450	650
% of Credit	45	27	68	28
Relative Value of Section	0.35	0.4	0.09	0.16
Relative Class of Section	6	8	4	8

Total credit for all sections

3.72

Divergence Score

0

Community Protection Class (PC) Grade =

(10-total Credit) + divergence score

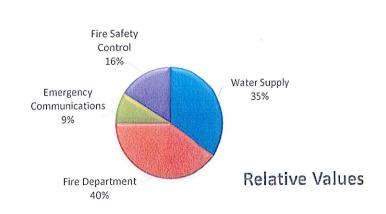
Community Protection Class (PC) Grade =

6.28 (Unrounded Grade)

## **Community Protection Class (PC) Grade =**

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Protection Class	Unrounded Grade
1	0.0 to 1.00
2	1.01 to 2.00
3	2.01 to 3.00
4	3.01 to 4.00
5	4.01 to 5.00
6	5.01 to 6.00
7	6.01 to 7.00
8	7.01 to 8.00
9	8.01 to 9.00
10	9.01 to 10.00



#### FINAL CALCULATION



Community Protection Class Grade

Explanation of Points Points Scored % of Credit

Water Supply 804 45%

The water supplies in the community that provide fire hydrants are evaluated in this section. In communities with multiple water supplies, the water supplies are prorated by their size (number of fire hydrants) to determine the overall score. Water Supply Items 1 through 5 make up the total score for this section.

Fire Department 1421 27%

The fire department servicing the community is evaluated in this section. The total service area of the fire department including incorporated and unincorporated area will be considered. Fire Department Items 1 through 17 make up the total score for this section.

#### Emergency Communications 145 68%

The Emergency Communication Center responsible for dispatching the fire department that services the community is evaluated. This evaluation will also apply to other communities the communication center dispatches fire services to. Emergency Communication Items 1 through 3 make up the total score for this section.

Fire Safety Control 471 28%

Fire Safety Control or fire prevention activities provided in the community are evaluated in this section. These activities may be provided by local, county or state authorities, all of which will be included in the evaluation. Fire Safety Control Items 1 through 4 make up the total score for this section.

Divergence 0

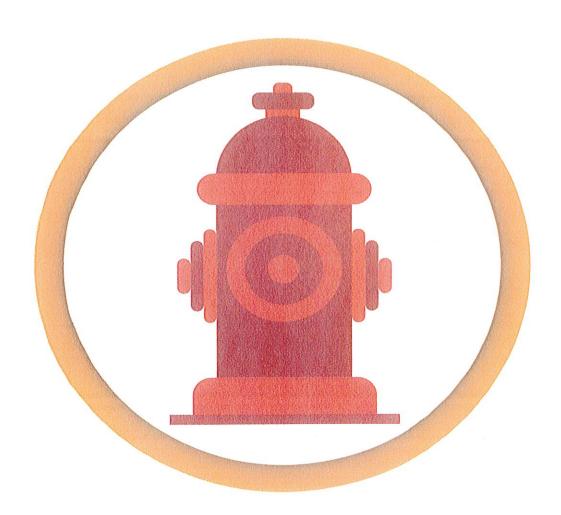
Excessive difference between the class of the Water Supply and the class of the Fire Department prevents the more effective feature from being utilized to its full relative value. An additional number of points are assigned to the grading of the community to recognize this divergence. Divergence in class between Water Supply and Fire Department of 2 classes or more shall have points added to the final grading of the community.

#### Community Protection Class (PC) Grade

The Protection Class produced by this schedule is the overall class of the community, not the classification of all property located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class to determine the PC of an individual property located within the community.

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# Water Supply





### **WATER SUPPLY**



#### **SUMMARY OF POINTS**

	Points
1 Adequacy of Water Supply	
1a. Commercial districts	244
1b. Residential districts	15
Total Points for Item	259
2 Distribution of Hydrants	
2a. Commercial districts	180
2b. Residential districts	134
Total Points for Item	314
4 Hydrants - Inspection and Condition	
Total Points for Item	3
5 A	
5 Arrangment, Operation and Maintenance of Water System Components	
5a. Arrangement and Operation	77
5b. Maintenance	126
Total Points for Item	203
Water Supply Total Points	804

#### WATER SUPPLY



#### **Explanation of Points**

Points Scored % of Credit

#### 1. Adequacy of Water Supply

#### 1a. Commercial Districts

244

67%

This item evaluates the water system's ability to deliver the required fire flow for commercial properties in the community. The score for this item is determined by comparing the required fire flow for a building to the available fire flow. A building's required fire flow is calculated using type of construction, square footage, occupancy, external exposure, and whether the building is equipped with an automatic sprinkler system. Available fire flow is measured using hydrant flow tests and the capacity of the water system storage, pumps, filters, and mains.

#### 1b. Residential Districts

15

94%

Fire flow availability is also evaluated in the residential districts of the community. The base fire flow requirement for residential properties is 1,000 gpm for a one-hour duration. In the context for the Protection Class Grading Schedule, "residential" refers to one- to four-family dwellings.

#### 2. Distribution of Hydrants

#### 2a. Commercial Districts

180

49%

This item evaluates whether commercial buildings located in the community have an adequate number of fire hydrants and if the fire hydrants are well distributed around the building. Buildings specifically rated by WSRB are used in evaluating this item.

#### 2b. Residential Districts

134

33%

Residential structures in the community will be evaluated to determine if a fire hydrant is available within 600 feet. Point score is based on the total number of properties as compared to the number of properties with a fire hydrant within 600 feet.

#### 3. Hydrants - Size, Type and Installation

25

75%

Hydrants shall conform to American Water Works Association (AWWA) Standards for dry-barrel hydrants. Standard hydrants must have a minimum of one pumper outlet and two 2.5-inch outlets, be connected to at least a 6-inch water main, and be provided with a control valve on connections between the hydrant and street main. Hydrants should also have a quick-connect fitting on the pumper port and uniform operating direction.

# WATER SUPPLY (continued)



Explanation of Points Points Scored % of Credit

#### 4. Hydrants - Inspection and Condition

97%

Hydrants must be inspected annually, including operating the hydrant and checking the static pressure. Flow tests of hydrants must be conducted at least every 5 years. Fire hydrants shall be marked for available water flow, free of obstructions, and kept in good condition.

#### 5. Arrangement, Operation and Maintenance of Water System Components

#### 5a. Arrangement and Operation

77

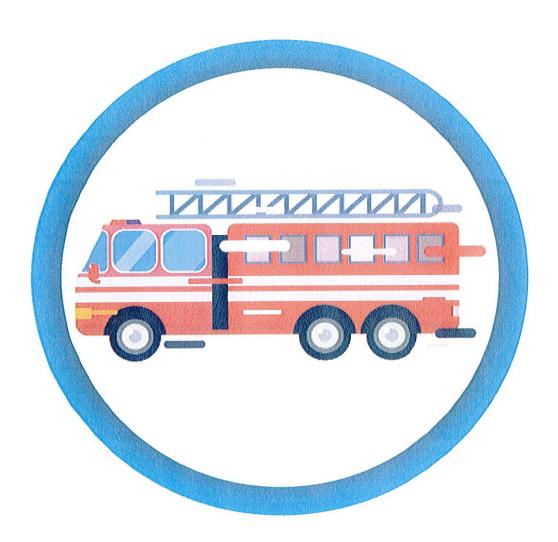
3

23%

"Arrangement" of the water system components evaluates the location and number of water sources and water storage units. Multiple water sources and water storage locations provide redundancy in order to reduce the impact of failure of one part of the system. "Operation" considers how the system is monitored and controlled (telemetry), how water is delivered (pumps or gravity), and if backup power is provided for pumps. The water system shall be managed by a state-certified operator.

5b. Maintenance 126 37%

This item evaluates the frequency of visits to and inspections of water system components other than hydrants. Regular visits and inspections allow for timely maintenance and repair of components. Water system components including wells, pumps, water tanks and reservoirs, pressure reducing, altitude, float control and isolation valves shall be regularly inspected.







SUMMARY OF POINTS	H W ROLLING
Item	Points
1 Pumpers	
<ol><li>Number of Pumpers in Service</li></ol>	21
1b. Number of Reserve Pumpers	4
Total Points for Item	25
2 Ladder Trucks/Ladder Service	
2a. Number of Ladder Trucks in Service	0
2b. Number of Reserve Ladder Trucks	20
2c. Ground Ladder Service	3
Total Points for Item	23
	THE ESTABLE MINISTER DOWNSTANCE ACTIONS ON THE COMMISSION OF THE ACTION
3 Distribution of Companies	
Total Points for Item	92
4 Pumper Capacity	
4a. Pumper Capacity	0
4b. Reserve Pumper Capacity	0
Total Points for Item	O
5 Maintenance and Condition of Apparatus	
Total Points for Item	74
6 Number of Officers	
6a. Number of Chief Officers	0
6b. Number of Company Officers	40
	40
Total Points for Item	TO
7 Department Staffing	
7a. Normal Minimum Strength of Day Shift	174
7b. Normal Minimum Strength of Night Shift	174
Total Points for Item	348



**SUMMARY OF POINTS (continued)** 

Item	Points
8 Engine and Ladder Company Unit Staffing Total Points for Item	207
Name and the first of the control of	THE RESIDENCE OF THE PROPERTY
9 Stream Devices	
Total Points for Item	10
10 Equipment for Pumpers and Ladder Truck	(S
Total Points for Item	14
TO CALL TO THE TOTAL TO THE TOTAL TH	
11 Hose	4.4
11a. Total Amount of LDH & 2½-inch Hose 11b. Total Amount of 1½-inch Hose	<u> 14</u> 0
11c. Total Amount of Pre-Connected Hose	0
Total Points for Item	14
THE STATE OF THE S	
12 Condition of Hose	
Total Points for Item	25
13 Training	
Total Points for Item	198
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14 Response to Alarms	_
Total Points for Item	7
15 Fire Operations	
	261
Total Points for Item	ZO I
16 Special Protection	
16a. Fireboats in Service	0
16b. Other Needed Special Protection	0
Total Points for Item	0
Total Former Total	
17 Miscellaneous Factors and Conditions	
17a. Fire Stations	45
17b. Fuel	15
17c. Delays in Response	23
Total Points for Item	83
Fire Department Total Points	1421



The number of pumpers in service and regularly responding to alarms must be sufficient to properly protect the community. The number of pumpers required is determined by evaluating the fire flow requirements in the community, geographical distribution of structures, response of engines outside the community, and frequency of alarms. The required number of pumpers is compared to the number of pumpers in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item.

#### **1b. Reserve Pumpers**

90%

To maintain the required number of pumpers in service, one reserve pumper is required for every 8 pumpers required to be in service, but no fewer than 1. Reserve pumpers shall be fully equipped, tested, and maintained for service.

#### 2. Ladder Trucks/Ladder Service

#### 2a. Number of Ladder Trucks in Service

100%

The number of ladders trucks in service and regularly responding to alarms must be sufficient to properly protect the community. A ladder truck is required when a community has at least 5 buildings with a required fire flow of 4,000 gpm or greater and/or 3 stories (35 feet) in height. The required number of ladders is compared to the number of ladders in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item. The height and type of ladder truck will also be evaluated in this item.

#### 2b. Number of Reserve Ladder Trucks

20

4

0%

To maintain the required number of ladder trucks in service, one reserve ladder truck is required for every five ladder trucks required to be in service, but no fewer than one. Reserve ladders shall be fully equipped, tested, and maintained for service.

#### 2c. Ground Ladder Service

3

94%

In those communities not considered to require a standard ladder truck, sufficient ground ladders to reach the roofs of buildings must be carried on pumpers or special apparatus. The number, type, height, and testing of ground ladders will be evaluated in the item.



Explanation of Points

**Points Scored** 

% of Credit

#### 3. Distribution of Companies

92

54%

Engine and ladder companies must be distributed to provide effective protection to the community. Structures should be within 1.5 road miles of a first-alarm engine company and 2.5 miles of a ladder company. Distances may be increased to 4 road miles in areas with separation of 100 feet or more between buildings. Pumper-ladders and automatic aid will be considered in this item.

#### 4. Pumper Capacity

4a. Pumper Capacity

0

100%

Adequate pumper capacity must be provided on the first alarm to meet or exceed basic fire flow. All fire pumps must be tested annually to receive full credit. Automatic aid will be considered in this item.

#### 4b. Reserve Pumper Capacity

0

100%

The total pumper capacity, including reserve pumpers, with 1 for each 8 required pumpers (but not fewer than 1 and including the largest) out of service, must be sufficient to maintain the total pumper capacity required.

#### 5. Maintenance and Condition of Apparatus

74

51%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

#### 5a. Facilities and Personnel

80%

Facilities, preferably departmental, must be adequate to properly service all apparatus, and an adequate number of personnel trained in fire apparatus maintenance must be provided. This item evaluates who operates the maintenance facility and the certifications of the maintenance personnel.

#### 5b. Preventative Maintenance

53%

A suitable preventive maintenance program must be in effect; this includes service tests of pumpers and inspection and testing of aerial ladders and elevating platforms. This item evaluates how often apparatus are checked and inspected. The testing frequency of pumps, aerials, foam systems, CAFS, breathing air systems, apparatus road test, and weight verification are also evaluated.

#### 5c. Age of Apparatus

44%

The age of apparatus will be considered in determining condition. Pumpers, ladders, and support vehicles older than 15 years will receive deficiency points. Apparatus older than 25 years will receive additional deficiency points.



Explanation of Points Scored % of Credit

6. Number of Officers

6a. Number of Chief Officers 0 100%

A chief officer in charge of the department must be on duty at all times but need not sleep at a fire station to be considered on duty provided there are adequate means for notification and response to alarms. Departments with more than 8 companies, in addition to the chief and assistant chief, must have sufficient battalion or district chiefs to provide one on duty in a fire station at all times for each 8 companies or major fraction required. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

#### 6b. Number of Company Officers

20%

There must be sufficient company officers to provide one on duty at all times with each required engine or ladder company. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

7. Department Staffing

#### 7a. Normal Minimum Strength of Day Shift

174

40

13%

There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.

#### 7b. Normal Minimum Strength of Night Shift

174

13%

There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.



Explanation of Points Points Scored % of Credit

8. Engine and Ladder Company Unit Staffing

207 35%

Unit staffing strength for engine and ladder companies only considers companies with apparatus in service credited in items 1 and 2. The amount by which the required 6 on-duty firefighters per company exceeds the on-duty strength (as determined in Item 7), divided by the number of in-service companies, equals the average deficiency per company.

#### 9. Stream Devices

10 80%

Turrets, nozzles, foam equipment, and, where required, elevated stream devices must be provided. This item evaluates the required stream devices to the devices provided. Credit will be limited if annual testing is not conducted and maintenance records are not provided.

10. Equipment for Pumpers and Ladder Trucks

14 86%

This item will consider equipment for existing pumpers and ladder trucks, except for such equipment considered in Items 2c (ground ladders), 9 (stream devices), and 11 (hose). Credit for SCBA's will be limited if inspection and testing is not conducted and maintenance records are not provided.

#### 11. Hose

#### 11a. Total Amount of LDH & 2 1/2-inch Hose 14 83%

This Item considers whether adequate hose is carried on each pumper and whether adequate reserve hose is provided. The requirement for large diameter hose (3.5 inches or larger) for each pumping apparatus is 600 feet on the apparatus and 300 feet in reserve. The requirement for 2.5-inch + hose is 800 feet on the apparatus and 400 feet in reserve.

11b. Total Amount of 1 1/2-inch Hose 0 100%

The requirement for 1.5-inch + hose on each pumping apparatus is 400 feet with 200 feet in reserve.

#### 11c. Total Amount of Pre-Connected Hose 0 100%

The requirement for pre-connected, 1.5-inch + hose on each pumping apparatus is 200 feet. Booster hose that is pre-connected to the pump is creditable, but booster hose smaller than 1.5 inches will only receive 50% credit.



**Explanation of Points** 

**Points Scored** 

% of Credit

12. Condition of Hose

25

69%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

#### 12a. Hose Testing Frequency

80%

All hose, in service and reserve, must be maintained in good condition and tested annually in accordance with NFPA Standard 1962.

12b. Age of Hose

47%

The age of all hose in service and in reserve is evaluated for the item.

#### 12c. Hose Washing, Drying, and Storage Facilities

0%

Suitable facilities and procedures must be provided for washing, drying, and storing hose. This is to prevent mildew in the hose jackets and rust / corrosion in hose compartments.

#### 12d. Cotton Jacket Hose

100%

An additional deficiency will be added for cotton-jacketed hose.

#### 13. Training

198

34%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

#### 13a. Supervision

60%

Training must be under the guide of a qualified training officer. Maximum credit is achieved when the training officer has at least 10 years of direct incident command experience, a rank of captain or better, and certification as a Fire Instructor II. Personnel in charge of training sessions must be certified as fire instructors.

#### 13b. Company Training

23%

Firefighters are required to have a minimum of 20 hours of structural fire fighting training per firefighter, per month. This amount can be reduced by 25%, to 15 hours, for firefighters that are certified Firefighter I and by 50%, to 10 hours, for firefighters that are certified firefighter II. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.

#### 13c. Training Center Training

15%

This item evaluates the quantity of training at a training center and the quality of the training center. A minimum of 8 half-day (3-hour) drills per year, including 2 drills at night and 4 multiple-company drills, shall be provided for all firefighters. Training centers shall be provided with a drill tower that is 3 stories in height (4 stories in height if a ladder truck is required in the community), a structure to support live fire simulation, a combustible liquid pit (minimum of 20-foot radius accessible from all directions), training aids and props, and an area of at least 2 acres suitable for multi-company operations.

#### 13d. Officer Training

100%

A minimum of two days per year (16 hours) is required for all officers. This amount can be reduced by 25%, to 12 hours, for officers that are certified Fire Officer I and by 50%, to 8 hours, for officers that are certified Fire Officer II. Officer training should include topics outlined in NFPA 1021: Standrad for Fire Officer Professional Qualifications that focus on leadership, fire tactics, and incident command.



#### **Explanation of Points**

#### 13e. Driver & Operator Training

100%

Personnel who drive and/or operate apparatus shall participate in a minimum of 1 day (8 hours) of training per year. Training should include topics outlined in NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications. Current state-approved EVIP certification can serve in lieu of annual training.

#### 13f. Recruit Training

80%

New fire department members shall receive a minimum of 240 hours of recruit training before becoming active firefighters. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.

#### 13g. Pre-Fire Planning

10%

An annual inspection of all commercial or similar type buildings is required. Pre-fire information shall be readily available on responding apparatus. Pre-fire plans should be in accordance with NFPA 1620: Recommended Practice for Pre-Incident Planning.

#### 14. Response to Alarms

7

93%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

#### 14a. Run Cards

100%

Run cards detailing the fire department response to fires must be developed for all areas of the community.

#### 14b. Commercial Districts

85%

Adequate response to alarms must be established. The required first alarm response depends on the district's basic fire flow. For districts with basic fire flow from 1500-3,999 gpm, at least 1 chief officer, 2 engine companies, and 1 ladder service company are required. For districts with basic fire flow from 4,000-8,999 gpm, at least 1 chief officer, 3 engine companies, and 1 ladder truck company are required. When basic fire flow is 9,000 gpm or higher, at least 1 chief officer, 3 engine companies, and 2 ladder truck companies are required.

#### 14c. Residential Districts

100%

At least 1 chief officer, 2 engine companies, and adequate ladder equipment are required to respond to residential districts.

#### 14d. Multiple Alarms

90%

Engine company response to each additional alarm for the same fire should approximate the number of engine companies required for the first alarm.

#### 14e. Cover Plan

50%

Response areas in the community must have a cover plan for when the first due companies are out of service.



Explanation of Points Scored % of Credit

#### 15. Fire Operations

261

18%

Consideration will be given to the ability of the department to operate effectively at fires. Effectiveness is dependent on staffing and training; however, others factors can also affect fire operations. Percentage for this item will be determined by taking the average of the percentages from Items 7, 8, and 13 and adjusting as conditions warrant.

#### 16. Special Protection

#### 16a. Insufficient Fireboats in Service

0

100%

A suitably staffed, equipped, and maintained fireboat will be required where at least 1 mile of wharf frontage necessitates firefighting operations from the water side. Such frontage must be within 1.5 miles of a fireboat.

#### 16b. Lack of Other Needed Special Protection

0

100%

Conditions in the municipality that require special fire department protection in addition to that covered elsewhere in this schedule will be considered in this item. Conditions considered in this item include but are not limited to: waterfront properties needing some special protection but not requiring a conventional fireboat, extensive brush areas, extensive bulk oil and other hazardous storage.

#### 17. Miscellaneous Factors and Conditions

#### 17a Fire Stations

45

55%

This item considers suitability of fire stations, including construction, housing of apparatus, and if the station is provided with a secondary power source. Communication equipment should be provided at fire stations and include two-way radios, spare portable radios, commercial telephone, and means for public reporting to the dispatch center. Firefighters must have two separate means for receiving alarms from the communication center that are under the control of the communications center. At least one means must be supervised. If the stations are not staffed, firefighters must be equipped with the means to receive alarms.

17b. Fuel

15

25%

Fuel must be available in sufficient quantities at fire stations. Suitable arrangements must be made for delivery of fuel to apparatus at fires of long duration.

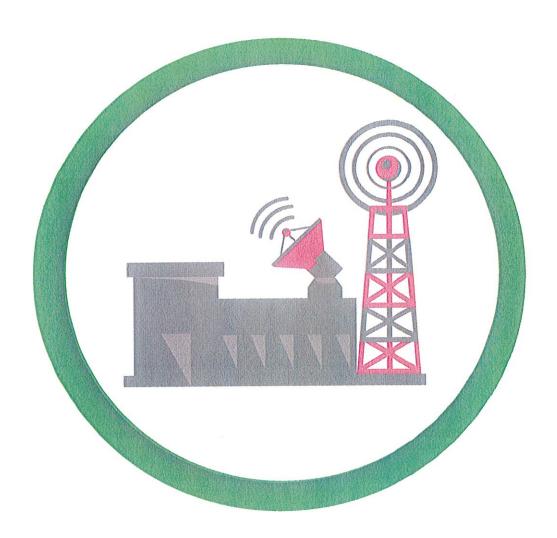
#### 17c. Delays in Response

23

77%

The possibility of delays due to poor condition of roads, including snow and ice, steep grades, vehicle parking, traffic, railroad grade crossings, and similar features are considered in this item.

# **Emergency Communications**





## **Emergency Communications**



#### **SUMMARY OF POINTS**

ltem	Points
1 Communication Center	
1a. Building Construction, Exposures and Communicating Openings	18
1b. Fire Protection	6
1c. Security	5
1d. Emergency Lighting	0
Total Points for Item	29
2 Communication Center Equipment	The second secon
2a. Computer-Aided Dispatch (CAD)	21
2b. Recording	0
2c. Telephone Service	0
2d. Supervision	20
2e. Dispatch Circuits	40
2f. Emergency Power	2
Total Points for Item	83
3 Telecommunicators	and Andrew Street has been self-of-street and an extension of the self-of-street
3a. Training	0
3b. Number of Telecommunicators on Duty	33
Total Points for Item	33
<b>Emergency Communications Total Points</b>	145

#### **EMERGENCY COMMUNICATIONS**

and Communicating Openings



Explanation of Points Scored Points % of Credit

1. Communications Center

1a. Building Construction, Exposures 18 64%

This item evaluates the building where the communication center is located. Communication centers should be in fire-resistive, separate buildings without internal or external exposures.

1b. Fire Protection 6 80%

This item evaluates the adequacy of fire protection provided for the communication center, including portable fire extinguishers, fire alarms, automatic sprinkler systems and suppression systems in computer and data-processing equipment rooms.

1c. Security 5 50%

Communication center security is meant to protect against vandalism, terrorism, and civil disturbances. Restricted access, security of doors and windows, and the vulnerability of the areas surrounding the center are considered.

1d. Emergency Lighting 0 100%

Communication centers must be provided with emergency lighting that will be placed in service immediately after a power loss so operations can continue uninterrupted. At least one self-charging lantern or flashlight should also be provided.

2. Communications Center Equipment

2a. Computer-Aided Dispatch (CAD) 21 70%

Features and capabilities of the Computer-Aided Dispatch (CAD) system are evaluated. Maximum credit is achieved when the CAD system has enhanced 911, wireless and VoIP capabilities; allows data exchange; has a redundant backup system with automatic switch-over to backup; selects and recommends units to be dispatched; is MDC-capable; and has automatic vehicle locating, GIS capabilities, and management information system (MIS). Credit will be prorated depending on the communication center's CAD capabilities.

2b. Recording 0 100%

All incoming and outgoing voice transmissions shall be recorded including the date and time. All telecommunicators should have access to immediate playback of recordings.

2c. Telephone Service 0 100%

The number of required telephone lines for emergency and business calls is determined by the population served by the communication center. Additional lines may be required if emergency calls other than fire are received or if central station alarms are received. One outgoing-only line must also be provided.



# EMERGENCY COMMUNICATIONS (continued)

Explanation of Points % of Credit

2d. Supervision 20 0%

All components of the alarm dispatch circuits shall be monitored for integrity, including dispatch circuits, transmitters, repeaters, and primary and secondary power. Fault conditions detected shall actuate an audible and visual trouble signal at a constantly attended location.

2e. Dispatch Circuits 40 0%

The communication center must have separate primary and secondary dispatch circuits for transmitting alarms. Maximum credit is obtained when dual circuits are provided, circuits are supervised, there is automatic switchover to a secondary circuit, and all components of the system are owned by the communication center.

2f. Emergency Power 2 93%

The Communication Center shall be provided with an emergency power source. An uninterruptible power supply (UPS) shall be provided along with an automatically starting generator.

#### 3. Telecommunicators

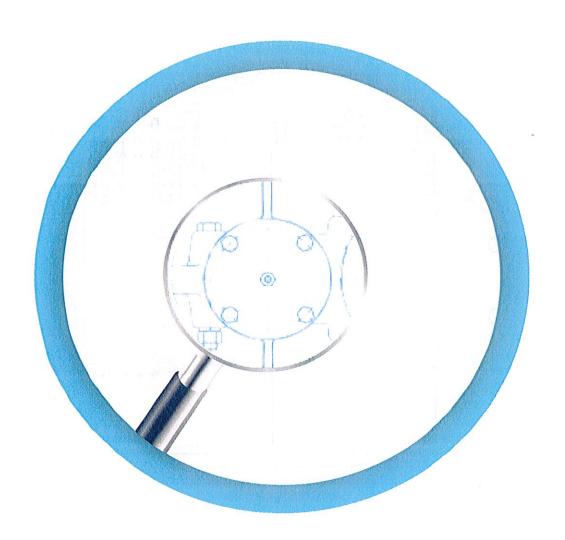
3a. Training 0 100%

A minimum of 480 hours of initial training is required for Telecommunicators. General dispatch training and fire dispatch training should be a minimum of 240 hours each. Non-certified telecommunicators should receive 40 hours of continuing education per year. Certified Telecommunicator I personnel and certified Telecommunicator II personnel shall receive 30 hours and 24 hours of continuing education, respectively.

3b. Number of Telecommunicators on Duty 33 67%

The number of required telecommunicators on duty is based on the total number of calls received per year at the communication center. If the communication center is meeting the call-answering and dispatching times set forth by NFPA 1221: <u>Standard for the Installation</u>, <u>Maintenance</u>, and <u>Use of Emergency Services Communications Systems</u>, then full credit will be applied in this item.

# Fire Safety Control





## Fire Safety Control



#### **SUMMARY OF POINTS**

Item	Points
100 100 100 100 100 100 100 100 100 100	
1 Fire Code Enforcement	
1a. Fire Marshal	10
1b. Fire Plan Review	15
1c. Inspections of Fire Code Permits	16
1d. Fire Code Inspections of Existing Occupancies	344
1e. Confidence Testing of Fire Protection Systems	17
Total Point for Item	402
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2 Public Fire Education	
2a. School Programs	28
2b. Adult Programs	14
Total Point for Item	42
TO COMPANY AND ADDRESS OF THE PROPERTY OF THE	SOURCE OF THE AREA SOURCE STATE OF THE SOURCE SOURCE SOURCE STATE OF THE SOURCE
3 Fire Investigations	
Total Point for Item	15
Political Control of the Control of	
4 Building Code Enforcement	
Total Point for Item	12
TOTAL TOTAL TOTAL THE STATE OF	
Fire Safety Control Total Points	471
rife Safety Control Total Formes	17

### FIRE SAFETY CONTROL



Explanation of Points Scored Points % of Credit

#### 1. Fire Code Enforcement

1a. Fire Marshal 10 50%

The fire marshal shall oversee fire code enforcement. The fire marshal shall have 10 or more years of code enforcement experience, be certified as a fire marshal, and receive at least 16 hours of fire-code-related continuing education per year.

1b. Fire Plan Review 15 70%

Review of plans for fire code compliance must be done by experienced, certified personnel. The plan reviewer shall have 5 or more years of plan review experience, be a registered design professional (licensed professional engineer), and receive at least 16 hours of plan review related continuing education per year. The plan review department needs to have adequate staffing to ensure comprehensive plan reviews.

### 1c. Inspection of Fire Code Permits 16 68%

New and renovated occupancies requiring a fire code permit must be inspected prior to issuing a Certificate of Occupancy. Fire inspectors shall be certified with 5 or more years of experience in inspections and receive at least 16 hours of fire inspection related continuing education per year. Adequate department staffing levels must be maintained to ensure comprehensive inspections.

#### 1d. Fire Code Inspections of Existing Occupancies 344 14%

Fire Code Inspections of existing occupancies shall be conducted. The frequency of inspections will be evaluated using Table 7 in the Protection Class Grading Schedule. Fire code inspectors should be certified with 5 or more years of experience and receive minimum of 16 hours of fire inspection related continuing education per year. Staffing levels must be sufficient to ensure comprehensive inspections.

### 1e. Confidence Testing of Fire Protection Systems 17 15%

Fire protection systems must be inspected and tested in accordance with the applicable NFPA standards. A program shall be in place to ensure these inspections are done, monitor the inspections results, and ensure deficiencies found with the systems are corrected.

#### 2. Public Fire Education

Fire safety education must be provided to the general public. Fire educators should be Certified Public Educators in accordance with NFPA 1035, have 5 or more years of experience, and receive 16 hours of public-education-related continuing education per year. All education programs and events should be documented and should include date, instructor, topics taught, length of class, and number of students.

# FIRE SAFETY CONTROL (Continued)

**WSRB** 

**Explanation of Points** 

**Scored Points** 

% of Credit

2a. School Programs

28

20%

School programs should include age appropriate subjects for all students, preschool to the 12th grade.

2b. Adult Programs

14

7%

Adult education should include programs for all segments of the adult population in the community.

3. Fire Investigations

15

25%

Fire investigations must be done to determine the cause and origin of all fires. Fire investigator shall have 5 or more years of experience, be a commissioned law officer, be certified as a fire investigator, and receive at least 16 hours of fire-investigation-related continuing education per year. In addition, sufficient staff levels are required to ensure adequate response to fires, and all fires should be reported to NFIRS.

4. Building Code Enforcement

12

70%

Current building codes must be adopted and effectively enforced. The score for this item is based on the current Building Code Class of the community.