

Title 153 - NEBRASKA STATE FIRE MARSHAL

Chapter 19 - FIRE SPRINKLER SYSTEM INSPECTIONS

Scope. Chapter 19 of Title 153 of the Nebraska Administrative Code is concerned with the certification of contractors who work on water-based fire protection systems. All water-based fire protection systems contractors shall be certified in accordance with applicable Nebraska state statutes, the rules and regulations promulgated by the State Fire Marshal, and nationally-recognized standards of the National Fire Protection Association (NFPA") which are incorporated by reference in these regulations. Information concerning each particular NFPA standard and which edition is currently adopted by the Agency is located at the back of this document.

This chapter also is concerned with the requirements for the installation, testing, repair, tagging, and inspection of water based fire protection systems, and the duties of water-based fire protection system contractors and the State Fire Marshal.

001. Certification Required.

001.01. Definitions:

(1) Responsible Managing Employee means an individual person employed full-time by the water-based fire protection system contractor who (a) is currently certified by the National Institute for Certification in Engineering Technologies (NICET) at a Level III or Level IV in fire protection engineering technology, automatic sprinkler layout, or another nationally recognized certification in an automatic sprinkler system layout recognized by the State Fire Marshal, (b) has completed and passed an examination administered by the State Fire Marshal, and (c) is an owner, partner, or officer in a management position of a contractor.

(2) Water-Based Fire Protection System means a system of overhead piping: (a) Designed in accordance with fire protection engineering standards, usually activated by heat from a fire and which, when activated, discharges water over the fire area; (b) supplied by an acceptable water supply; (c) which is specially sized or hydraulically designed and installed in a building, structure, or fire area to which fire sprinklers are connected; and (d) which includes a controlling valve and usually a device for actuating an alarm when the system is in operation. Only the portion of the water-based fire protection system which is separate from the domestic water system is considered the water-based fire

protection system. Water-based fire protection systems include wet-pipe systems, dry pipe systems, foam-water systems, pre-action systems, deluge systems, combined dry pipe and pre-action systems, stand-pipe systems, combined stand-pipe and sprinkler systems, water-spray fixed systems, fire pumps, fire-protection water storage tanks, antifreeze systems, and circulating closed-loop systems.

(3) Water-Based Fire Protection System Contractor means a person engaged in the business of installation, repair, alteration, addition, maintenance, or inspection of water-based fire protection systems. However, it does not include (a) individuals employed by and working under the direction of a contractor or local building officials, fire inspectors, or insurance inspectors when acting in their official capacity. Under Neb. Rev. Stat. § 49-801(16), a person shall include bodies politic and corporate, societies, communities, the public generally, individuals, partnerships, limited liability companies, joint-stock companies, and associations.

001.02. Any water-based fire protection system contractor who wishes to install, repair, alter, add to, maintain, or inspect a water-based fire protection system in the State of Nebraska shall first obtain a Water-Based Fire Protection Contractor's Certificate from the State Fire Marshal. Applications for the Water-Based Fire Protection Contractor's Certification are available from the State Fire Marshal. The address of the State Fire Marshal's Office is 246 South 14th Street, Lincoln, Nebraska, 68508. The telephone number is (402) 471-2027. Each applicant must designate a Responsible Managing Employee on the application.

A copy of the Application for Contractor's Certification is attached hereto as ATTACHMENT "A" and is incorporated by reference.

001.03. Upon receipt of a completed application, the applicant must provide the proof of insurance, demonstrating at least one million dollars (\$1,000,000.00) of coverage for the installation, inspection, and testing of water-based fire protection systems, and the required certificate fee, the State Fire Marshal will schedule a time for an examination of the responsible managing employee to demonstrate that he or she has a working knowledge of water-based fire protection systems and the rules and regulations of the State Fire Marshal. Upon successful completion of the examination, the State Fire Marshal shall issue a certificate to the contractor within thirty (30) days.

001.04. All water-based fire protection contractors' certificates shall expire on September 30 of the year following issuance. At least thirty (30) days prior to expiration of the certificate, a water-based fire protection

contractor may file an application to renew his or her certificate with the State Fire Marshal. Along with the renewal application, a renewal fee, not to exceed one hundred dollars (\$100.00) and a sworn affidavit must be submitted, stating that the responsible managing employee is currently employed by the contractor. The renewal application will use the same application form as the initial application for the contractor's certification, which is designated as ATTACHMENT "A".

001.05. The State Fire Marshal may refuse to renew or may revoke or suspend a water-based fire protection contractor's certificate for any of the following reasons:

- (a) Gross incompetence or gross negligence in the installation, alteration, or inspection of a water-based fire protection system.
- (b) The use of false evidence, false documentation or misrepresentation in the application process for a certificate.

002. Working Plans:

002.01. Working plans and hydraulic calculations are to be prepared in accordance with currently adopted National Fire Protection Association (NFPA) standards and these plans and calculations shall be submitted to the State Fire Marshal or his delegated authority for the following:

- (a) all new water-based fire protection systems.
- (b) all changes to special systems such as Large Drop or Early Suppression/Fast Response (ESFR).
- (c) all modifications to a water-based fire protection system that involve adding or relocating more than ten (10) sprinkler heads.
- (d) all changes to systems where the required system demand (flow or pressure) is affected by ten percent (10%) or more.

Information about or examination of the NFPA guidelines is available by contacting either the Fire Marshal's main office in Lincoln at (402) 471-2027, or the District "B" Office in Albion at (402) 395-2164 or the District "C" Office in North Platte at (308) 535-8181 or at the local delegated authorities at the following cities, Beatrice - (402) 228-3306, Bellevue - (402) 293-3153, Grand Island - (308) 385-5444 ext. 220, Lincoln - (402) 441-7791, Norfolk - (402) 644-8739, North Platte - (308) 534-7728, Omaha - (402) 444-5710, Scottsbluff - (308) 630-6205.

002.02. Proposed installation details and hydraulic calculations shall be submitted to the State Fire Marshal or his or her delegated authority for approval prior to the installation of backflow prevention devices on existing water-based fire protection systems and when existing backflow prevention devices are to be replaced by a device not identical to the backflow devices previously installed.

003. Systems Acceptance Testing and Inspections:

003.01. All water-based fire protection systems shall be hydrostatically tested, in accordance with the currently adopted NFPA standards upon completion of the system or whenever more than ten (10) sprinkler heads are added or modified.

003.02. All other initial system testing required by currently adopted NFPA standards (dry valve trip tests, etc.) shall be performed upon completion of the system.

003.03. A Deputy State Fire Marshal or the delegated authority shall be notified within 48 hours in advance of a system acceptance testing.

003.04. Final system acceptance testing and inspection of any water-based fire protection system installed in a hospital, nursing home, or a residential care facility shall be witnessed by a Deputy State Fire Marshal or the delegated authority.

003.05. Upon completion of all required acceptance testing for new and altered systems, the Water-Based Fire Protection Contractor shall complete a Contractor's Material and Test Certificate Form covering the work performed. Depending on whether the fire protection system utilizes aboveground or underground piping, the Contractor's Material and Test Certificate Form is attached hereto as ATTACHMENT "B-1" for aboveground piping and ATTACHMENT "B-2" for an underground piping system and is incorporated by this reference. The certificate shall be signed by the Water-Based Fire Protection System Contractor's Representative and the building owner or a representative of the building owner. A copy of the Nebraska State Fire Marshal Fire Sprinkler Inspection Form, which is attached hereto as ATTACHMENT "C" and is incorporated by this reference and shall also be completed and signed by the Water-Based Fire Protection System Contractor's Representative, the building owner or his or her representative and the witnessing authority. A copy of the Contractor's Material and Test Certificate and the Nebraska State Fire Marshal Fire Sprinkler Inspection Form shall be maintained at the system riser with a duplicate forwarded to the State Fire Marshal's Office.

003.06. Whenever any repairs, modifications or additions are made to a water-based fire protection system, the Water-Based Fire Protection System Contractor's Representative shall complete a Nebraska State Fire Marshal Fire Sprinkler Inspection Form. A copy of the form is to be maintained at the system riser with a duplicate forwarded to the State Fire Marshal's Office.

003.07. In order for the State Fire Marshal's Office to create a record of each system for tracking purposes, every water-based fire protection system shall have a separate and distinct serial identification number. Each system shall be tagged with a seal issued by the State Fire Marshal's Office. The seal shall be placed in a highly visible location. Each of the following devices must bear a separate identification tag and corresponding serial number.

- (1) Each main control valve from each sprinkler riser. The identification tag shall be placed either on or around the main control valve or on or around the main drain.
- (2) Each fire pump or booster pump, excluding jockey pumps, shall have a separate tag and serial number.
- (3) Each main system double-check backflow preventer assembly. The tag should be placed on or around one of the control valves for the device.
- (4) Auxiliary systems, such as pre-action systems, dry-systems, anti-freeze loops, etc. **do not** require a separate tag and serial number. However, in each annual inspection report, the condition of these auxiliary systems must be reported and noted on the corresponding main control valve inspection report.

004. Periodic Inspections:

004.01. In order to assure compliance with, and aid in the implementation of state and local building laws and regulations, all water-based fire protection systems shall be inspected annually by a Water-Based Fire Protection System Contractor's Representative. Small domestic systems with two (2) sprinklers or fewer are not required to be inspected annually.

004.02. The currently adopted edition of NFPA - No. 25, "Standards for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems" shall provide the basis for the inspection procedures to be performed.

004.03. Upon completion of the annual inspection, the Water-Based Fire

Protection System Contractor's Representative shall complete a Nebraska State Fire Marshal Fire Sprinkler Inspection Form, see ATTACHMENT "C". The form is to be signed by a qualified inspector and the building owner or a representative of the building owner. Each inspection report shall bear the serial numbers of the identification tag. A copy of the form is to be maintained at the system riser with a duplicate forwarded to the State Fire Marshal's Office.

Please refer to the following National Fire Protection Association (NFPA) Codes. Information about or the examination of these documents are available from the State Fire Marshal's Office in Lincoln, Albion, or North Platte and the delegated authority in Beatrice, Bellevue, Grand Island, Lincoln, Norfolk, North Platte, Omaha, and Scottsbluff.

1. Installation of Sprinkler Systems - NFPA 13 (1994 Edition)
2. Sprinkler Systems in One & Two Family Dwellings and Manufactured Homes - NFPA 13D (1994 Edition)
3. Sprinkler Systems in Residential Occupancies Up to & Including Four Stories in Height - NFPA 13R (1994 Edition)
4. Installation of Standpipe & Hose System - NFPA 14 (1996 Edition)
5. Water Spray Fixed Systems - NFPA 15 (1990 Edition)
6. Deluge Foam-Water Sprinkler Systems & Foam-Water Spray Systems - NFPA 16 (1995 Edition)
7. Installation of Closed-Head Foam Water Sprinkler Systems - NFPA 16A (1994 Edition)
8. Installation of Centrifugal Fire Pumps - NFPA 20 (1993 Edition)
9. Water Tanks for Private Fire Protection - NFPA 22 (1996 Edition)
10. Installation of Private Fire Service Mains - NFPA 24 (1995 Edition)
11. Water-Based Fire Protection Systems - NFPA 25 (1995 Edition)
12. General Storage - NFPA 231 (1995 Edition)
13. Rack Storage of Materials - NFPA 231C (1995 Edition)

Legal Citation: Title 153, Chapter 19, Nebraska State Fire Marshal

Statutory Authority: Neb. Rev. Stat. §81-5,158, 5,164 (1997 Supp.)



APPLICATION FOR WATER-BASED FIRE PROTECTION CONTRACTOR'S CERTIFICATE

Name of Company:

Address:

City:

State:

Zip:

Email:

Phone: ()

RESPONSIBLE MANAGING EMPLOYEE

Name:

Address:

City:

State:

Zip:

Email:

Phone: ()

Name of Engineering Certification Agency:

Level of Certification:

Engineering Certification #:

Expires:

I certify that I am a full-time employee of:

Signed:

Date:

Liability Insurance Company:

This application must include a \$100.00 (one-hundred dollars) fee check or money order, proof of insurance coverage and a copy of engineering certification. This certificate expires on September 30th of each year.

New Certificate:

Test Date:

Test Location:

Renewal of Certificate:

Certificate #:

MAIN OFFICE
246 SOUTH 14TH STREET
LINCOLN, NE 68508-1804
(402) 471-2027

ATTACHMENT A

NEBRASKA STATE FIRE MARSHAL'S OFFICE

Contractor's Material and Test Certificate for Aboveground Piping

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME	DATE
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PROPERTY ADDRESS

PLANS	ACCEPTED BY APPROVING AUTHORITIES (NAMES)				
	ADDRESS				
	INSTALLATION CONFORMS TO ACCEPTED PLANS				<input type="checkbox"/> YES <input type="checkbox"/> NO
	EQUIPMENT USED IS APPROVED IF NO, EXPLAIN DEVIATIONS				<input type="checkbox"/> YES <input type="checkbox"/> NO

INSTRUCTIONS	HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? IF NO, EXPLAIN					<input type="checkbox"/> YES <input type="checkbox"/> NO
	HAVE COPIES OF THE FOLLOWING BEEN LEFT ON THE PREMISES:					
	1. SYSTEM COMPONENTS INSTRUCTIONS				<input type="checkbox"/> YES <input type="checkbox"/> NO	
	2. CARE AND MAINTENANCE INSTRUCTIONS				<input type="checkbox"/> YES <input type="checkbox"/> NO	

LOCATION OF SYSTEM	SUPPLIES BUILDINGS				
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	MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
SPRINKLERS						

PIPE AND FITTINGS	Type of Pipe _____ Type of Fittings _____				
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ALARM VALVE OR FLOW INDICATOR	ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST CONNECTION		
	TYPE	MAKE	MODEL	MINIMUM	SECONDS	

DRY PIPE OPERATING TEST	DRY VALVE				Q.O.D.								
	MAKE		MODEL		SERIAL NO.		MAKE		MODEL		SERIAL NO.		
		TIME TO TRIP THROUGH TEST CONNECTION*		WATER PRESSURE		AIR PRESSURE		TRIP POINT AIR PRESSURE		TIME WATER REACHED TEST OUTLET*		ALARM OPERATED PROPERLY	
		MIN.	SEC.	PSI	PSI	PSI	MIN.	SEC.	YES	NO			
	Without Q.O.D.												

IF NO, EXPLAIN

*MEASURED FROM TIME INSPECTOR'S TEST CONNECTION IS OPENED.

NEBRASKA STATE FIRE MARSHAL'S OFFICE

DELUGE & PREACTION VALVES	OPERATION <input type="checkbox"/> PNEUMATIC <input type="checkbox"/> ELECTRIC <input type="checkbox"/> HYDRAULIC								
	PIPING SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO				DETECTING MEDIA SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO				
	DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS <input type="checkbox"/> YES <input type="checkbox"/> NO								
	IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING? <input type="checkbox"/> YES <input type="checkbox"/> NO						IF NO, EXPLAIN		
	MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM		DOES EACH CIRCUIT OPERATE VALVE RELEASE		MAXIMUM TIME TO OPERATE RELEASE		
		YES	NO	YES	NO	MIN.	SEC.		
PRESSURE REDUCING VALVE TEST	LOCATION & FLOOR	MAKE & MODEL	SETTING	STATIC PRESSURE		RESIDUAL PRESSURE (FLOWING)		FLOW RATE	
				INLET (PSI)	OUTLET (PSI)	INLET (PSI)	OUTLET (PSI)	FLOW (GPM)	
TEST DESCRIPTION	<p>HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours of 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.</p> <p>PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop, which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1-1.2 psi (0.1 bars) in 24 hours.</p>								
TESTS	ALL PIPING HYDROSTATICALLY TESTED AT _____ PSI FOR _____ HRS.						IF NO, STATE REASON		
	DRY PIPING PNEUMATICALLY TESTED <input type="checkbox"/> YES <input type="checkbox"/> NO								
	EQUIPMENT OPERATES PROPERLY <input type="checkbox"/> YES <input type="checkbox"/> NO								
	DRAIN TEST	READING OF GAUGE LOCATED NEAR WATER SUPPLY TEST CONNECTION: _____ PSI				RESIDUAL PRESSURE WITH VALVE IN TEST CONNECTION OPEN WIDE _____ PSI			
	UNDERGROUND MAINS AND LEAD IN CONNECTIONS TO SYSTEM RISERS FLUSHED BEFORE CONNECTION MADE TO SPRINKLER PIPING. VERIFIED BY COPY OF THE U FORM NO. 85B <input type="checkbox"/> YES <input type="checkbox"/> NO FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING <input type="checkbox"/> YES <input type="checkbox"/> NO						OTHER	EXPLAIN	
IF POWDER DRIVEN FASTENERS ARE USED IN CONCRETE, HAS REPRESENTATIVE SAMPLE TESTING BEEN SATISFACTORILY COMPLETED? <input type="checkbox"/> YES <input type="checkbox"/> NO						IF NO, EXPLAIN			
BLANK TESTING GASKETS	NUMBER USED	LOCATIONS					NUMBER REMOVED		
WELDING	WELDED PIPING							<input type="checkbox"/> YES	<input type="checkbox"/> NO
	IF YES . . .								
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10 9. LEVEL AR-3?							<input type="checkbox"/> YES	<input type="checkbox"/> NO
	DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10 9. LEVEL AR-3?							<input type="checkbox"/> YES	<input type="checkbox"/> NO
DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED?							<input type="checkbox"/> YES	<input type="checkbox"/> NO	
CUTOUTS (DISCS)	DO YOU CERTIFY THAT YOU HAVE A CONTROL FEATURE TO ENSURE THAT ALL CUTOUTS (DISCS) ARE RETRIEVED							<input type="checkbox"/> YES	<input type="checkbox"/> NO

NEBRASKA STATE FIRE MARSHAL'S OFFICE

HYDRAULIC DATA NAMEPLATE	NAMEPLATE PROVIDED <input type="checkbox"/> YES <input type="checkbox"/> NO	IF NO, EXPLAIN	
REMARKS	DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN:		
SIGNATURES	NAME OF SPRINKLER CONTRACTOR		
	TESTS WITNESSED BY		
	FOR PROPERTY OWNER (SIGNED)	TITLE	DATE
	FOR SPRINKLER CONTRACTOR (SIGNED)	TITLE	DATE
ADDITIONAL EXPLANATION AND NOTES			

ATTACHMENT "B-1 FOR Aboveground Piping" (Page 3)

SEND TO: Nebraska State Fire Marshal - 246 South 14th Street - Lincoln, NE 68508-1804
 A copy of this completed form shall be forwarded to the State Fire Marshal's Office and a duplicate shall be maintained at the system riser.

NEBRASKA STATE FIRE MARSHAL'S OFFICE

Contractor's Material and Test Certificate for Underground Piping				
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job. A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.				
PROPERTY NAME		DATE		
PROPERTY ADDRESS				
PLANS	ACCEPTED BY APPROVING AUTHORITIES (NAMES)			
	ADDRESS			
	INSTALLATION CONFORMS TO ACCEPTED PLANS		<input type="checkbox"/> YES	<input type="checkbox"/> NO
	EQUIPMENT USED IS APPROVED IF NO, EXPLAIN DEVIATIONS		<input type="checkbox"/> YES	<input type="checkbox"/> NO
INSTRUCTIONS	HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
	HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS BEEN LEFT ON PREMISES? IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
LOCATION	SUPPLIES BUILDINGS			
UNDERGROUND PIPES AND JOINTS	PIPE TYPES AND CLASS		TYPE JOINT	
	PIPE CONFORMS TO _____ STANDARD FITTINGS CONFORM TO _____ STANDARD IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
	JOINTS NEEDING ANCHORAGE CLAMPED, STRAPPED, OR BLOCKED IN ACCORDANCE WITH _____ STANDARD IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
TEST DESCRIPTION	FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 390 GPM (1476 L/min) for 4-inch pipe, 880 GPM (3331 L/min) for 6-inch pipe, 1560 GPM (5905 L/min) for 8-inch pipe, 2440 GPM (9235 L/min) for 10-inch pipe, and 3520 GPM (13323 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available. HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (138 bars) for two hours or 50 psi (34 bars) above static pressure in excess of 150 psi (103 bars) for two hours. LEAKAGE: New pipe laid with rubber gasketed joints shall, if the workmanship is satisfactory, have little or no leakage at the joints. The amount of leakage at the joints shall not exceed 2 qts. Per hr. (1.89 L/h) per 100 joints irrespective of pipe diameter. The leakage shall be distributed over all joints. If such leakage occurs at a few joints the installation shall be considered unsatisfactory and necessary repairs made. The amount of allowable leakage specified above may be increased by 1 fl oz per in valve diameter per hr (30 mL/25 mmh) for each metal seated valve isolating the test section. If dry barrel hydrants are tested with the main valve open, so the hydrants are under pressure, an additional 5 oz per minute (150 mL/min) leakage is permitted for each hydrant.			
FLUSHING TESTS	NEW UNDERGROUND PIPING FLUSHED ACCORDING TO _____ STANDARD BY (COMPANY) IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
	HOW FLUSHING FLOW WAS OBTAINED <input type="checkbox"/> PUBLIC WATER <input type="checkbox"/> TANK OR RESERVOIR <input type="checkbox"/> FIRE PUMP		THROUGH WHAT TYPE OPENING <input type="checkbox"/> HYDRANT BUTT <input type="checkbox"/> OPEN PIPE	
	LEAD-INS FLUSHED ACCORDING TO _____ STANDARD BY (COMPANY) IF NO, EXPLAIN		<input type="checkbox"/> YES	<input type="checkbox"/> NO
	HOW FLUSHING FLOW WAS OBTAINED <input type="checkbox"/> PUBLIC WATER <input type="checkbox"/> TANK OR RESERVOIR <input type="checkbox"/> FIRE PUMP		THROUGH WHAT TYPE OPENING <input type="checkbox"/> Y CONN. TO FLANGE <input type="checkbox"/> OPEN PIPE & SPIGOT	

NEBRASKA STATE FIRE MARSHAL'S OFFICE

HYDROSTATIC TEST	ALL NEW UNDERGROUND PIPING HYDROSTATICALLY TESTED AT _____ PSI FOR _____ HOURS	JOINTS COVERED <input type="checkbox"/> YES <input type="checkbox"/> NO	
LEAKAGE TEST	TOTAL AMOUNT OF LEAKAGE MEASURED _____ GALS FOR _____ HOURS		
	ALLOWABLE LEAKAGE _____ GALS FOR _____ HOURS		
HYDRANTS	NUMBER INSTALLED	TYPE AND MAKE	
		ALL OPERATE SATISFACTORILY <input type="checkbox"/> YES <input type="checkbox"/> NO	
CONTROL VALVES	WATER CONTROL VALVES LEFT WIDE OPEN IF NO, STATE REASON		
	HOSE THREADS OF FIRE DEPARTMENT CONNECTIONS AND HYDRANTS INTERCHANGEABLE WITH THOSE OF FIRE DEPARTMENT ANSWERING ALARM		
REMARKS	DATE LEFT IN SERVICE		
SIGNATURES	NAME OF INSTALLING CONTRACTOR		
	TESTS WITNESSED BY		
	FOR PROPERTY OWNER (SIGNED)	TITLE	DATE
	FOR INSTALLING CONTRACTOR (SIGNED)	TITLE	DATE
ADDITIONAL EXPLANATION AND NOTES			

ATTACHMENT "B-2 FOR Underground Piping" (Page 2)

SEND TO: Nebraska State Fire Marshal - 246 South 14th Street - Lincoln, NE 68508-1804
 A copy of this completed form shall be forwarded to the State Fire Marshal's Office and a duplicate shall be maintained at the system riser.

