GEORGETOWN MUNICIPAL WATER AND SEWER SERVICE MANUAL FOR CONTAINMENT AND CROSS-CONNECTION PREVENTION

AUGUST, 1992

GEORGETOWN MUNICIPAL WATER AND SEWER SERVICE
125 WEST CLINTON STREET
P.O. BOX 653
GEORGETOWN, KENTUCKY 40324
(502) 863-7816

GMWSS would like to take this opportunity to thank the following Committee Members for the time and effort put forth by them to review and make revisions to the "Manual for Cross-Connection Prevention":

Mark Bamberger, Kardon Industries
John Blackburn, Board of Commissioners, GMWSS
Don Dekoster, Division of Water
Joyce A. Gee, General Manager, GMWSS
Audney "Bo" Hall, Division of Plumbing
Bill Hamilton, City of Georgetown
R. Bruce Lankford, Attorney at Law
Bill McDonald, Wilmac Pen Company
Ron Milburn, Johnson Controls, Inc.
Gary Pruitt, Southern Elementary School
Jim Roberts, Georgetown College
Glenn Williams, Board of Commissioners, GMWSS

Thank you,

Billy G. Jenkins
Cross-Connection Inspector

REVISED DECEMBER, 1991

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

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REGULAR MEETING
February 18, 1992

The regular board meeting of the Georgetown Municipal Water and Sanitary Sewer Board was held at the Administrative Building on February 18, 1992, at the hour of 6:00 P.M.

THOSE PRESENT:

JOHN BLACKBURN
LEWIS WOLFE
RANDALL TRIGG
GLENN WILLIAMS
JOYCE GEE
ROBERT BRUCE LANKFORD
JUDITH HYNES
EBB RAY
DOUG RALSON
JOHN COOK
RAY BROOKS
SCOTT MALKMUS
DON SHORT

Meeting called to order by Chairman Blackburn.

The minutes of January 21, 1992, and February 5, 1992, were passed out to the Board members by Commissioner Williams. Minutes approved as corrected and/or amended.

The monthly bills were reviewed by the Board. Motion by Glenn Williams, seconded by Randall Trigg, to approve the bills presented and authorize payment of same. Motion carried unanimously.

Our financials were presented by Judith Hynes. Board accepted same.

Motion made by Randall Trigg, seconded by Lewis Wolfe, to approve the bid of NAC, Inc. in the amount of $7,203.94 for installation of an ammonia feed manhole, etc., as a portion of our chloramination process. Further, to purchase a HC-150 Duplex Water Softener from CULLIGAN for a total price of $5,495.00. Motion carried unanimously.

After discussion pertaining to our chloramination change-over, and considering the fact that time is running out before Georgetown Municipal Water and Sewer Service must begin to pay for water from the Frankfort Interconnect, motion was made by Randall Trigg, seconded by Lewis Wolfe, to declare an emergency as it relates to our chloramination project. Motion carried unanimously.

Based upon the emergency declared hereinabove, motion was made by Glenn Williams, seconded by Lewis Wolfe, to approve the bid of NAC, Inc. for the construction of a chlorine storage shed for a total cost of $13,100. Motion carried unanimously.

Continuing under the emergency status, motion was made by Glenn Williams, seconded by Lewis Wolfe, to approve the bid of NAC, Inc. to construct CMU buildings and lines pertaining to our chloramination project for a total cost of $37,310.00. Motion carried unanimously.

Under the heading of Public Requests, James and Margaret Banks requested service for a barn off Cedar Road. Based upon manager's recommendation, the Board decided to wait until the current extension project is completed before any new hook-ups are approved. Same action on the request of Mr. and Mrs. Ewell Cohorn.

Don Short gave his operational report. Copy attached.

The Board then heard from Billy Jenkins on the new draft of our Cross-Connection Manual. Chairman Blackburn commended Billy's job on the manual preparation. Billy requested that

if the manual is accepted, then it should be put into ordinance form by the City. Motion made by Randall Trigg, seconded by Lewis Wolfe, to approve the manual as presented and recommend same for passage by City Council. Motion carried unanimously.

The project summary list was reviewed. Copy attached.

The internal audit by P.D.R. was tabled until a special meeting can be called for this item to be discussed. Said meeting will take place on Tuesday, February 25, 1992 at 6:00 P.M.

Motion made by Randall Trigg, seconded by John Blackburn to authorize the payment of our agreed upon portion for the upgrade on the Lloyd Pike extension in the amount of $42,000.00. Voting yes: Blackburn, Trigg. Abstains: Wolfe, Williams.

Motion by Glenn Williams, seconded by Randall Trigg to approve the continuing services agreement with PDR as presented. Motion carried unanimously.

The meeting adjourned at 8:11 P.M.

JOHN BLACKBURN, CHRM.

GLENN WILLIAMS, SECRETARY-TREASURER

MINUTES JULY 16, 1992

The regular meeting of the Ciy Council was held Thursday July 16, 1992 at 7:00 p.m. in the Council Chambers.

Mayor Prather presided with the following members in attendance; Hawkins, Lewis, Martin , McDowell, Perry, Pollock, Pruitt, and Roberts.

Following a moment of silence , the pledge to the flag was led by Councilmember Hawkins.

1. Motion by Councilmember Pruitt, seconded by Councilmember Perry and by majority roll call vote the minutes of July 2,1992 meeting were approved.Councilmember Roberts abstained.

2. Motion by Councilmember Hawkins, seconded by Councilmember Lewis and by majority roll call vote the minutes of Special Meeting on May 28, 1992 were approved. Councilmember Martin abstained.

3. Motion by Councilmember Roberts, seconded by Councilmember Hawkins and by unanimous roll call vote the bills in the amount of $450,749.91 were approved for payment.

Mayor Prather stated the conclusion of the special hearing was a motion by Councilmember Perry seconded by Councilmember Pruitt to uphold the personnel policies, with a suspension of two weeks without pay was approved by the body by a unanimous vote.

Joyce Gee presented her report to each member . She announced the GMWSS July Board Meeting would be held July 21, 1992 at 6:00 p.m. At that time recommendations will be presented to the Board from Proctor, Davis & Ray regarding WWTP#1 renovation and expansion.

The Cross Connection and Back Flow Manual was discussed.

4. Motion by Councilmember Hawkins, seconded by Councilmember Perry and by majority roll call vote the Cross Connection and Back Flow Manual as presented by GMWSS, was approved.Councilmember Pruitt voting no.

The Mayor announced the need for the lists from members of streets in need of repair or paving. The list is needed by the next meeting on August 6, 1992.

Councilmember Pruitt questioned the section of Aztec that has not been accepted by the City as yet. Engineer Gray stated that there needs to be paving done before it will be accepted.

City Attorney Perkins presented RESOLUTION 92-008, RESOLUTION HONORING ED MOORE SR., expressing appreciation for his many services while an employee of the City of Georgetown.

5. Motion by Councilmember Roberts, seconded by Councilmember Lewis and by unanmious roll call vote the resolution honoring Ed Moore Sr., was approved.

The request for the City to accept Commercial Drive was discussed with the decision by Engineer Gray stating the street did not meet specifications.

6. Motion by Councilmember Roberts, seconded by Councilmember Hawkins and by unanimous roll call vote ORDINANCE 92021, AN ORDINANCE AMENDING THE ZONING ORDINANCE was adopted and approved.

7. Motion by Councilmember Pollock, seconded by Councilmember Lewis and by uanimous roll call vote ORDINANCE 92-022, AN ORDINANCE AMENDING THE `1991-92 BUDGET ,was adopted and approved.

Mayor Prather presented an update on Scott General Hospital.They are planning a 3 million dollar expansion. With having worked out funding details outside to allow water project to assure the hospital of an adequate water supply, the project will continue.The hospital is scheduled to fund $25,000 to assist in this water project.

NEW BUSINESS

Robert Wynn appeared before the body expressing concerns about those 159 persons who have been exempt to the full fee and are being charged just $2.00 monthly for garbage pick-up. The Mayor assured Mr. Wynn that all rates will be re-evaluated and assured him that the rates would be set in a fair and equitable manner with no exceptions.

Mayor Prather reported on the CDBG grant that was presented by the Governor to the City of Georgetown , with the entire total being 1.8 million dollars.This will renovate 22 houses in the Boston area.

The Housing Authority has received the Region 4 Performance award for 1992.

Chief Adkins receommended the acceptance of the bid from Summitt for the repowering of fire truck in the amount of $44,275.00 and an additional $675.00 for the speaker system..

8. Motion by Councilmember Lewis, seconded by Councilmember Pruitt and by unanimous roll call vote the bid for the fire truck repair in the amount of $44,275.00 from Summitt was approved.

9. Motion by Councilmember Lewis, seconded by Councilmember Lewis and by unanimous roll call vote the bid of $675.00 from Summitt for the speaker system was approved.

Mayor Prather announced the upcoming Swim Meet to be held at Suffoletta Park July 20,21 & 22 with No Parking in effect for those three days on Markham, Fairfax Way and Towson Way.

10 . Motion by Councilmember Lewis seconded by Councilmember Perry and by unanimous roll call vote the placing of parking restrictions on Markham Drive, Fairfax Way and Towson Way during the Swim Meet, were approved.

Lois Holmes, Director P&R, discussed the needs of improving the football/soccer filed at GMS. Grading and possible fencing of field was discussed also.

Engineer Gray presented a request from Valvoline Oil Change, north of Airport Road, for easement to allow access to existing sewer main,with the Sewer Board not responsible for maintenance.

11. Motion by Councilmember Roberts, seconded by Councilmember McDowell and by unanimous roll call vote the request for easement from Valvoline Oil Change was approved.

Mayor Prather reminded everyone of the Step and Stride Right "Fun Day " to be held Saturday , July 18, 1992. Urged everyone to try to vist if possible.

12. Motion by Councilmember Pollock, seconded by Councilmember Pruitt and by unanimous roll call vote permission to close Chambers Avenue, (if needed) for the "Fun Day" was approved.

Jack Wise reported that all easements for the tree street project had been completed. Engineer Gray reported that the work would possibly begin within the next week.

CONCERNS OF MEMBERS;

PRUITT-----discussed several possibilities of cable service via telephone companies . Also small satellite dishes. were mentioned.

HAWKINS----street cuts by utilities are not being repaired properly.

PERRY-----informing all members of the water overflowing onto Vic Jennings property.

MCDOWELL----- "Children At Play" signs needed on Main Ave.

13. Motion by Councilmember McDowell, seconded by Councilmember Perry and by unanimous consent the body entered into executive session.

14. Motion by Councilmember Lewis, seconded by Councilmember Pruitt and by unanimous consent the regular session resumed.

Mayor Prather reported no action taken in executive session.

Next meeting August 6, 1992.

Having completed the agenda, meeting adjourned at 9:15 p.m.

CITY CLERK

MAYOR

CERTIFICATION

I, the undersigned City Clerk of the City of Georgetown, Kentucky, do hereby certify that the foregoing is a true , correct copy of the City of Georgetown, Kentucky, of properly convened meeting of the City Council on the date of July 16, 1992 as shown by the official records in my custody and control.

WITNESS, my hand and the seal of this City, this 3rd day of August 1992.

Glenwood C. Williams

GLENWOOD C. WILLIAMS,
CITY CLERK
GEORGETOWN, KENTUCKY

(SEAL)

PHILLIP J. SHEPHERD
SECRETARY

BRERETON C. JONES
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601

September 9, 1992

Joyce A. Gee
General Manager
Georgetown Municipal
Water & Sewer Service
PO Box 653
Georgetown, Kentucky 40324

RE: Manual for Containment and
Cross-Connection Prevention
Georgetown Municipal W/S Service

Dear Mrs. Gee:

This office has reviewed the above referenced manual for the Georgetown water system. Based on our review, the manual is acceptable for implementation.

If we may be of any further assistance in this matter, please contact us.

Sincerely,

John T. Smither

John T. Smither, Manager
Drinking Water Branch
Division of Water

JTS:DWP:lm

C: Scott County Health Department
Frankfort Regional Office
Drinking Water Files

SECTION I
GOALS & OBJECTIVES OF THE
GMWSS CONTAINMENT PROGRAM

It is the expressed intent of the Georgetown Municipal Water and Sewer Service to achieve the following:

A. To comply with the appropriate laws, regulations and codes governing the water purveyor in the areas of cross-connection prevention.

B. To protect the water distribution system from contamination and/or pollution of any type.

C. Provide assurance to our customers of protection from cross-connection contamination and/or pollution of the public water supply.

D. To continue to work with all agencies for the development and implementation of rules, regulations and codes in order to enforce an effective cross-connection prevention program.

E. Our goal is to promote continuing education as it relates to cross-connection prevention. The cross-connection prevention program consists of the following items:

1. Inspection of potential hazardous locations served by GMWSS.

2. Make appropriate requirements of existing and new customers, for cross-connection prevention control.

3. The mechanical devices and/or air gaps used for backflow prevention must meet or exceed accepted standards.

4. Maintain a record keeping system for the following items:

   a. Description of the facilities where the potential cross-connection exists.

   b. Actual location where installation of RP and/or double check devices have been required for the containment program.

      1) Address of contact person.
      2) Location of devices within the facility or facilities.
      3) Model, size and serial number of devices.
      4) Performance testing records of backflow prevention devices.

5. An application for water service shall be reviewed "review process" for cross-connection prevention.

6. Current status of laws, rules and codes, subject to yearly review.

SECTION II
DEFINITION LIST

A. AIR GAP

(Air Gap Separation) The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or outlet supplying water to a tank, plumbing fixture, or other device, and the flood-level rim of the receptacle.

B. APPROVED

The term "approved" as herein used in reference to a water supply system or backflow prevention device (or method) shall mean one that has been approved by one of the appropriate regulatory agencies, water purveyor or testing laboratories.

C. ATMOSPHERIC VACUUM BREAKER

A mechanical device consisting of a float check valve and an air inlet port designed to prevent backsiphonage.

D. BACK PRESSURE

Pressure created by any means in the water distribution system on the premises, which by being in excess of the pressure in the water supply main could cause backflow, also back pressure means backflow caused by a pump, elevated tank, boiler, or other means that could create pressure within the system greater than the supply pressure.

E. BACKFLOW PREVENTOR

Any mechanical device designed to automatically prevent an unintentional reverse flow in a potable water distribution system.

F. BACKSIPHONAGE

A form of backflow due to a negative or subatmospheric pressure within a water system.

G. BYPASS

Any arrangement of pipes, plumbing, or hoses designed to divert the flow around an installed device through which the flow normally passes.

H. CONTAINMENT

The installation of an approved backflow prevention device at the water service connection to any customer's facility which creates a closed loop system thereby separating the private plumbing system from the public water supply.

I. CONTAMINANT

Any substance that could cause serious health damage or death.

J. CROSS-CONNECTION

Any physical connection or arrangement between two (2) otherwise separate piping systems, one (1) of which contains potable water and the other either water of unknown or questionable safety or steam, gas or chemical whereby there may be a flow from one (1) system to the other, the direction of flow depending on the pressure differential between the two (2) systems.

K. DOUBLE CHECK VALVE ASSEMBLY (ADCVA)

An assembly composed of two single, independently acting, "approved check valves", including tightly closed shutoff valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve.

L. HIGH & LOW HAZARD

The term is derived from an evaluation of the potential risk to public health and the adverse affect of the hazard upon the potable water system.

M. INDIRECT CONNECTION

Any arrangement of pipes, fittings, or fixtures that indirectly connects a potable water supply to a non-potable supply; for example, a submereged inlet to a tank.

N. INDUSTRIAL FLUIDS

Any fluid or solution that may chemically, biologically, or physically degrade the approved water supply.

O. INDUSTRIAL LINE

A separate water piping system serving water using devices, with backflow preventor or air gap separation on this line at the point of takeoff from the potable water line.

P. INDUSTRIAL PIPING SYSTEM, CONSUMERS

A system used by a consumer for transmission or storage of anything (fluid, solid or gas) other than the water supply intended or used for human consumption or food processing. (Such receptacles, fixtures, equipment, and apparatus used to produce, convey or store substances that are or may be polluted).

Q. ISOLATION

To confine a potential source of contamination of the nonpotable system being served; for example, to install a backflow prevention device on a laboratory faucet or boiler feed line, within a closed loop system of the customer.

R. LIABILITY

Obligated by law, or responsible for. Anything for which a person is legally bound.

S. NEGATIVE PRESSURE

Pressure that is less than atmospheric; negative pressure in a pipe can induce a partial vacuum that can siphon non-potable liquids into the potable distribution system.

T. NON-POTABLE WATER

Any water supply that is unsafe for human consumption and does not meet the Safe Drinking Water Standards.

U. NON-TOXIC

Not poisonous; a substance that will not cause illness or discomfort if consumed.

V. PLUMBING

Any arrangement of pipes, fitting, fixtures, and devices for the purpose of moving liquids from one point to another, generally within a single structure.

W. POISON

A substance that can kill, injure or impair a living organism.

X. POLLUTION

The presence of any foreign substance (organic, inorganic, or biological) in water, which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not creat an actural hazard to the public health, but which does adversly and unreasonably affect such waters of domestic use.

Y. POTABLE WATER

Water that is safe for human consumption and meets the standards of the Safe Drinking Water Act.

Z. POTENTIAL

Capable of backflow.

AA. PRESSURE

The weight (of air, water, etc.) exerted on a surface, generally expressed as pounds per square inch (psi).

BB. PRESSURE VACUUM BREAKER

A device consisting of one or two independently operating, spring-loaded check valves and an independently operation, spring-loaded air-inlet valve designed to prevent backsiphonage.

CC. REDUCED PRESSURE PRINCIPLE OR REDUCED PRESSURE ZONE DEVICE

(RP or RPZ) A mechanical device consisting of two independently operating, spring-loaded check valves with a reduced pressure zone between the checks designed to protect against both back pressure and backsiphonage.

DD. REFUSAL OF SERVICE

(Shutoff policy) A formal policy adopted by a governing board to enable a utility to refuse or discontinue service where a known hazard exists and corrective measures are not undertaken.

EE. REGULATING AGENCY

Any local, state or federal authority given power to issue rules or regulations having the force of law for the purpose of providing uniformity in details and procedures.

FF. SUBMERGED INLET

An arrangement of pipes, fittings, or devices into a potable water system that introduces water into a non-potable system below the flood level rim of a receptacle.

GG. TEST COCK

An apparatus on a device or valve used for testing the device.

HH. TOXIC

Poisonous; a substance capable of causing injury or death.

II. VACUUM BREAKER

A device consisting of one spring-loaded air-inlet valve designed to prevent backsiphonage.

JJ. WATERBORNE DISEASE

Any disease that is capable of being transmitted through water; for example typhoid, polio, giardiasis.

SECTION III
LAWS, RULES AND REGULATIONS

A. Ky. Public and Semipublic Water Supplies Regulations. (402 KAR 8:020), Section 2, Item 2

Cross-connection prohibited. All cross-connections are prohibited. The use of automatic devices, such as reduced pressure zone back flow preventers and vacuum breakers, may be approved by the cabinet in lieu of proper air gap separation. A combination of air gap separation and automatic devices shall be required if determined by the cabinet to be necessary due to the degree of hazard to public health. It shall be the responsibility of every public water system to determine whether or where cross-connections exist and to immediately eliminate them.

B. Kentucky Occupational Safety and Health Standards; subpart

J-General Environment Controls (1910 141) (B) (2) (ii) "Construction of nonpotable water systems or systems carrying any other nonpotable substances shall be such as to prevent backflow or backsiphonage into a potable water system".

C. Georgetown Municipal Water and Sewer Service Rules and Regulations.

The Cross-Connection Manual has been approved and adopted by the Board of Directors of the Georgetown Municipal Water and Sewer Service.

The Georgetown Municipal Water and Sewer Service is legally authorized to discontinue water service to those customers who do not comply with the rules and regulations of the Cross-Connection Program.

The Cross-Connection Inspector must determine the type of device to be used according to the degree of hazard. After installation, all backflow preventor devices must be inspected by the Cross-Connection Inspector.

D. Approval by Division of Water & Georgetown City Council.

E. Appeal Process (See Attachment "A").

F. Emergency Response Plan (Available at consumers request).

ATTACHMENT "A"

Appeal Process

If a consumer has received notification from GMWSS that it is required to install an approved backflow prevention device, the customer has thirty (30) days in which to provide a written appeal to GMWSS.

The appeal should include:

- Name
- Address (of customer making appeal)
- Phone
- Contact Person
- Location of potention cross-connection hazard as identified in the field inspection of GMWSS.
- Reason for appeal

The appeal will be reviewed by the cross-connection prevention supervisor and will respond within ten (10) working days of receipt of the appeal in writing.

A second appeal can be made in writing to the manager of GMWSS, but must be done within 14 days of the receipt of the decision of the cross-connection prevention supervisor. The appeal will be reviewed and a response in writing will be done in ten (10) working days.

The final appeal can be made to the GMWSS water board, but must be submitted in writing within ten (10) working days of the receipt of the decision of the manager of GMWSS. The appeal will be heard at the next regularly scheduled meeting of the water board. This decision is final.

During the appeal process no action for termination of water service to the facility submitting the appeal may take place, unless the degree of hazard determines the potential for a health hazard.

SECTION IV
POLICIES AND PROCEDURES

A. GENERAL PRACTICES POLICY

1. General Operational Criteria. The primary responsibility of the water purveyor is to protect the public potable water system from contamination by solid, liquid or gaseous pollutants originating from a consumer's premises.

PROCEDURES

A. When a hazard to the public water system is found on a consumer's premises, the consumer shall be required to install an approved backflow prevention device at each public water service connection to the premises. The type or kind of device will depend on the degree of hazard. Under normal procedures, high hazard will require an RPZ and low hazard will require a double check valve.
involved.

B. After an approved backflow prevention device has been installed the responsibility for segregating domestic and industrial water uses internally usually depends upon the health agency (or others having jurisdiction) and the customer. The water purveyor should be informed of any change in the use of water on a customer's premises that would affect the degree of hazard to the public system.

C. In making a determination of potential backflow hazards, it should be remembered that a backflow can occur under a wide range of pressure differentials, varying from vacuums to very high pressures. This means that a backflow can occur from a consumer's premises into the public potable water system when the street main pressure is lower than the customer's pressure, is at atmospheric pressure, or is under a partial vacuum.

2. New Construction. Plans should be checked prior to construction to determine the degree of hazard and the class of backflow prevention device, if any, required at the point of delivery.

In planning the service connection to an industrial plant, designer should divide the system into domestic and industrial uses at the point of delivery and provide for a backflow prevention device on each leg or branch. If the types of backflow prevention devices cannot be immediately determined, a spool of dummy section of pipe should be installed temporarily on each leg or branch at the service connection in lieu of a backflow

prevention device. When the water use requirements and the degree of hazard have been established and it has been found that there is an actual need for a backflow prevention device, the dummy sections may be removed and replaced by appropriate backflow prevention devices, in accordance with the degree of hazard. If no backflow protection is immediately required, the spacer would remain in place until there is a need for a device.

3. Existing Systems. A survey shall be made of a customer's water system, in order to determine if there is a hazard to the public potable water system.

4. Typical Methods of Backflow Prevention. When a hazard has been found and a degree established, effective steps should be taken, to require the installation of backflow prevention devices at service connections. The devices should be installed on each service connection at the point of delivery and ahead of any outlet. Where the customer's water line is divided at the point of delivery, a device must be installed on each leg or branch. The type and kind of device needed on each leg or branch should be in accordance with the highest degree of hazard found in the system.

5. Installation of Devices. All devices, whether of the double check or reduced-pressure type, should have their locations approved. All devices must have location approved and be installed in a horizontal position. They should be in locations where they are readily accessible for maintenance and testing should not be located where any parts of the device will be submerged at anytime. This is particularly applicable to the reduced-pressure type of device.

6. Testing, Inspection and Test Programs. Regular testing, inspection and maintenance of all backflow devices, and appropriate records of the results, are essential parts of GMWSS cross-connection/containment program.

7. Surveys - Surveys of existing customers in the form of a written letter are made to determine any potential hazard to GMWSS potable water system. Such surveys may result from questions by GMWSS staff or the public regarding water quality. The survey is intended to identify:

    1. Specific water uses on the site.
    2. The existence of potential cross-connections.
    3. The availability of water not delivered by GMWSS.
    4. The use of any contaminants on the site.

SECTION IV CONTINUED
TYPICAL FACILITIES, CROSS-CONNECTIONS OR WATER USES
WHICH MAY ENDANGER THE PUBLIC WATER SYSTEM

Georgetown Municipal Water and Sewer Service has a policy requiring that the determination of the "degree of hazard" be based on a complete inspection of the consumer's water-using facilities. (See section IV (A), 1A).

4.1 GROUP I: HIGH HAZARD INCLUDES CROSS-CONNECTIONS TYPICAL TO CERTAIN INDUSTRIES OR USES.

HIGH HAZARDS NORMALLY TO BE FOUND IN CONNECTION WITH THE OPERATION OF AN AVERAGE WATER SYSTEM INCLUDE:

4.1.1 SEWAGE SYSTEMS

Cross-connections to sewage or surface water pumps for priming, cleaning, flushing or unclogging purposes.

Water-operated sewage sump ejectors for operational purposes.

Sewers for the purpose of disposing of filter or softener backwash water or water from cooling systems or for the purpose of providing for a quick drain for the building water lines or of flushing or blowing out obstructions in the sewer lines, etc. (NOTE: most State regulations require backflow protection at the service connection to any premises on which there is located a sewage or pumping station, even though there are no cross-connections.)

Reclaimed water.

4.1.2 RESERVOIRS, COOLING TOWERS, ETC.

Reservoirs, cooling towers and circulating systems which may be heavily contaminated either with bird droppings, vermin, algae, bacterial slimes or with toxic water treatment compounds such as pentachlorophenol, copper, chromates, metallic glucosides, compounds of mercury, quaternary ammonium compounds, etc.

4.1.3 INDUSTRIAL FLUID SYSTEMS

Industrial fluid systems and lines containing cutting and hydraulic fluids, coolants, hydrocarbon products, glycerine, paraffin, caustic and acid solutions, etc.

4.1.4 FIRE FIGHTING SYSTEMS

Fire fighting systems, including storage reservoirs which may be treated for prevention of scale formation, corrosion, algae, slime growth, etc.

Fire systems which may be subject to contamination with anti-freeze solutions, "Foamite" or other chemicals or chemical compounds used in fighting fires.

Fire systems which are subjects to contamination with auxiliary or used water supplies or industrial fluids.

4.1.5 PLATING FACILITIES

Plating facilities involving the use of highly toxic cyanides, heavy metals in solution (such as copper, cadmium, chrome, nickel, etc.), acids and caustic solutions.

Plating solution filtering equipment with pumps and circulating lines.

Tanks, vats or other vessels used in painting, descaling, anodizing, cleaning, stripping, oxidizing, etching, passivating, pickling, dipping, rinsing operations.

Other lines or facilities needed in the preparation or finishing of the products.

4.1.6 STEAM GENERATING FACILITIES

Steam generating facilities and lines which may be contaminated with boiler compounds such as pentachlorophenol, hydrazine, cyclohexylamine, etc.

4.1.7 PLUMBING HAZARDS

Inadequately protected (improperly installed, improperly maintained or without vacuum breakers) flush valve toilets, urinals, aspirators, retorts, pipet tube washers and similar contaminated and/or sewer-connected facilities.

Laboratory equipment which may be chemically or bacteriologically contaminated such as steam sterilizers, autoclaves, specimen tanks, autopsy and mortuary equipment.

4.1.8 COOLING SYSTEMS - SINGLE PASS

Compressors, heat exchangers, air-conditioning equipment and other water cooled equipment which may be sewer-connected.

4.1.9 IRRIGATION SYSTEM

Irrigation systems which may be equipped with pumps, injectors, pressurized tanks or vessels, or other facilities for injecting into the irrigation system agricultural chemicals such as fungicides, pesticides, soil conditioning and other similar noxious, toxic or objectionable substances.

Irrigation systems subject to contamination from submerged inlets, auxiliary water supplies, ponds, reservoirs, swimming pools and other sources of stagnant, polluted or contaminated waters.

4.1.10 PLUMBING - HOSPITALS

Contaminated or sewer-connected equipment such as bed pan washers, flush valve toilets and urinals, autoclaves, specimen tanks, sterilizers, pipet tube washers, cuspidors, aspirators, autopsy and mortuary equipment, etc.

4.1.11 INDUSTRIAL SYSTEMS - CHEMICAL CONTAMINATION

Tanks, can and bottle washing machines and lines where caustics, acids, detergents and other compounds are used in cleaning, sterilizing and flushing.

4.1.12 PHOTO PROCESSING EQUIPMENT

Tanks, automatic film processing machines or other facilities used in processing films, which may be contaminated with chemicals such as acetic acid, potassium ferricyanide and/or one of the many different types of aromatic series of organic chemicals.

4.1.13 LAUNDRIES AND DYE WORKS

Laundry machines having under-rim or bottom inlets.

Dye vats in which are used toxic chemicals and dyes.

Wash water storage tanks equipped with pumps and recirculating systems.

Rentention and mixing tanks.

Shrinking, bluing and dyeing machines with direct connections to circulating systems.

4.1.14 INDUSTRIAL FACILITIES

Tanks, lines, valves, fittings and other equipment being subjected to hydraulic tests.

Hydraulically operated equipment where the city water pressure is used directly and may be subject to back pressure.

Equipment under hydraulic tests where pumps, rams, pressure cylinders or other hydraulic principles are used to provide pressures for testing purposes.

4.1.15 MOTION PICTURE STUDIOS

Open reservoirs, lagoons, tanks or similar facilities, used as props in the making of motion pictures.

Automatic film processing machines, tanks, vats and other facilities used in processing films.

Special effects equipment in which chemicals and other materials may be injected into the water supply for special effects.

4.1.16 PETROLEUM PROCESSING

Steam boilers, steam lines, mud pumps and mud tanks, hydraulically operated Tretolite tanks, oil well casings (for dampening gas pressure) dehydration tanks, outlet lines from storage and dehydration tanks (for purging purposes), oil and gas tanks (to create hydraulic pressures and to hydraulically raise the oil and gas levels), gas and oil lines (for testing, evacuating and slugging purposes.

4.1.17 PAPER PROCESSING

Pulp, bleaching, dyeing and other processing equipment which may be contaminated with toxic chemicals.

4.1.18 CANNERY EQUIPMENT

Pressure cookers, autoclaves, retorts and other similar steam-connected facilities, washers, cookers, tanks, lines, flumes and other equipment used for storing, washing, cleaning, blanching, cooking, flushing, or for transmission of foods, fertilizers or wastes.

4.1.19 AUXILIARY WATER SYSTEMS

Most State regulations require that the service connection from an approved water supply be protected by a suitable backflow prevention assembly where there is an auxiliary supply system on the premises even though there are no overt cross-connections.

4.1.20 SOLAR ENERGY SYSTEMS

Solar energy systems for domestic hot water heating, space heating or cooling, industrial process water heating, swimming pool heating which may have cross-connections with the domestic water system. The solar energy system may employ anti-freeze solutions or chemical corrosion resistent.

4.2 GROUP II: INCLUDES HIGH AND LOW HAZARDS CROSS-CONNECTIONS INVOLVING WATER-USING FIXTURES AND EQUIPMENT

SITUATIONS WHICH SHOULD BE CONSIDERED IN EVALUATION THE DEGREE OF HAZARD TO THE PUBLIC POTABLE WATER SYSTEM INCLUE:

4.2.1 AUXILIARY WATER SUPPLIES, FIRE FIGHTINGS, IRRIGATION, SWIMMING POOLS, ETC.

Fire Fighting systems- booster pumps to tank systems, storage facilities and Siamese connections.
Fish ponds - pump connected.
Hot water systems - drainage and flushing facilities.
Irrigation systems - parks, golf courses, playgrounds, schools, etc.
Jumper connections.
Lawn sprinklers under pressure.
Fountains - display, public and private.
Public and private water companies.
Private wells for domestic, commercial, irrigation and industrial use.
Swimming pool inlets, recirculation systems, chlorinators and drains.

4.2.2 PROCESS WATERS RECIRCULATED

Air conditioning - refrigerated, air wash, make-up and drains.
Ball mills.
Cooling systems - refrigeration, diesel engines, compressors.
Any industries practicing water conservation.
Ink mills.
Paint mills.

4.2.3 WATER TREATMENT FACILITIES

Addition of chemicals.
Boiler feed treatment.
Compound feeders.
Scale, corrosion, slime control.
Water filtration and water softening.

4.2.4 SITUATION WHERE TOXIC OR OBJECTIONABLE CHEMICALS ARE OR MAY BE TRANSMITTED, STORED OR USED IN A MANNER WHICH MAY ENDANGER THE WATER SYSTEM

Brine Lines
Foamite Lines
Glycerine Lines
Laboratory Equipment
Mixing Tanks
Oil Systems
Photo processing & washing
Pickling Tanks
Plating Works
Refrigerants

4.2.5 PRIMING LINES - THAT HAVE BEEN FOUND CONNECTED TO:

Acid pumps
Air conditioner pumps
Air pumps
Booster pumps
Cadmium solution pumps
Caustic pumps
Chromic acid
Cyanide pumps
Gasoline lifts
Glycerine pumps
Hydraulic elevator pumps
Sewer pumps
Sump ejectors
Venturi float lines

4.2.6 DIRECT WATER CONNECTIONS TO STEAM SYSTEMS AND HYDRAULIC ELEVATORS AND AIR LINES, ETC.

Boilers - high and low pressure.
Cold and hot water return to steam systems.
Compressors.
Direct-connected hydraulic elevators.
Elevator air lines.
Return and surge tank hydraulic elevator systems.
Steam ejectors.
Steam lines.
Suction tees.
Turbo burners.
Vacuum systems.

4.2.7 INDUSTRIALIZED LINES

All types of industries.
Laboratories.

4.2.8 INTERSTREET SERVICES - LOW PRESSURE AND FRINGE AREAS

Elevation and pressure conditions.
More than one service to a premise.

4.2.9 INDUSTRIAL WATER-USE CONNECTIONS

Box plants - glue pots, soaking vats, steaming processes.
Canneries - pressure cookers, retorts, wash lines, salt wash lines.
Creameries - distilled water, ice water, tap water, hot water, steam, milk and other products.
Laundries - caustic soap solutions, hot and cold water, softened hot and cold water, chlorinated water and boiler room equipment.
Metal works - testing lines, cooling systems, plating solutions, metal processing lines, cutting oil, lubricant lines, and welding machines.
Oil Companies - flushing oil lines, tanks and systems - to dehydrators - heating and cooling systems.
Packing houses - rendering vats, pressure reduction vats, and hide soaking and pickling vats.
Rubber and rubber goods plants - roll cooling machines, cookers, water transmission systems, brine and styrene solutions.
Shipyards - salt water systems, tank testing facilities, ship line testing, pierhead outlets, fire systems, prestolite systems.
Tanneries - chemical solution and dye lines, lanolin lines and soaking tanks.
Hospitals - all types.

4.2.10 CROSS-CONNECTIONS INVOLVING SEWAGE OR SEWAGE DISPOSAL FACILITIES

Baptismal founts
Brewery vats
Brine tanks
Cheese tanks
Compressors - cooling systems with direct connection
Culture vats
Diesel engines - cooling systems with direct connection
Dipper vats
Direct water lines to sewer for drains or flushing
Dye tanks
Fire sprinkler drain lines
Flush manholes - water supply to
Flush tanks
Food mixing tanks
Holding tanks - camper or trailer toilet flushing facilities
Kitchen equipment
Morticians aspirators
Photographic tanks
Pickling tanks
Plating tanks
Potato peelers
Priming lines
Reservoir by-passes and drains to sewer or storm drains
Reverse Osmosis Purifiers - brineline

Sewage chlorinators - direct injection
Sewage sump ejectors
Sewage sump pumps and ejectors - water operated
Sewer flushing equipment - water connection
Shrinking tanks
Sinks
Soaking tanks
Spring-loaded glass washers
Steam soap washing devices
Steam table connections
Swimming pool gutter drains
Tanks
Therapeutic baths
Various blowoffs or drains to sewers
Vats
Water jacketed tanks, vats and pots
Water Softeners
Water street mains drain to sewer or storm drains
Water-operated pumps

4.2.11 SPECIAL USES WHERE CROSS-CONNECTIONS ARE USUALLY FOUND

Baptismal tanks
Blood plasma equipment
Blueprint machines
Car washing equipment - caustic and soap guns, mixers and boiler equipment
Chillers
Commercial vacuum cleaning equipment
Construction equipment lines
Deaerators
Garbage washing with steam and cold water connections
Humidity controls
Hydraulic fertilizer applications
Mortuaries
Oil well leases
Pest control equipment - orchard spray
Pressure and steam cookers
Roof and house tanks
Soap mixing layouts
Solar heating systems
Steamer supply equipment
Storage reservoirs
Veterinary hospitals
Water-operated siphons - all types
Weed control equipment
X-ray equipment

4.2.12 PLUMBING AND WATER PIPING POTENTIAL CROSS-CONNECTIONS

Aspirators
Autoclaves
Auto shampoo
Basins
Bathtubs
Bedpan washers
Bidets
Blueprint machines
Bottle washers
Carbonators
Can washers
Coffee urns
Colonic irrigators
Cooking kettles
Dental Cuspidors - water operated
Dishwashers
Drains, tanks, vats
Drinking fountains
Fish ponds
Frostproof toilets
Garbage griding devices
Grease traps
Hoppers (utility)
Hose bibs (certain types)
Hydraulic vacuum cleaners
Instrument sterilizers
Insecticide sprayers water operated
Integral tank and closet bowls
Laboratory operated vacuum pumps
Lawn sprinklers (at last control valve)
Laundry trays
Laundry washers
Pressure cookers
Refrigeration units
Shampoo units
Soda fountains
Turbo burner drains
Toilets - flush valves low tanks
Urinals
Washing machines
Water Purifiers - brineline to sewer
Watering troughs
Yard outlets - submerged
Yard sprinkling nozzles
Overflow tanks
Overhead exposed leaking sewage
Pasteurizers
Plumbers enemy
Plumbers friend - identical gadgets:
 removable hose connection between bib and lavatory or sink drain

4.3 Group III: CHEMICALS AND CHEMICAL COMPOUNDS USED IN WATER TREATMENT

CHEMICALS OR CHEMICAL COMPOUNDS WHICH MAY CREATE A HAZARD TO THE PUBLIC SYSTEM WHEN INJECTED OR OTHERWISE INTRODUCED INTO THE CONSUMER'S SYSTEM INCLUDE (BUT ARE NOT LIMITED TO):

4.3.1 AGRICULTURE

Solutions of chemicals are used by agriculture for many purposes. The following are some of the chemical compounds which may be injected into irrigation systems for spreading purposes. All of them are toxic in concentrated solutions.

Fertilizers	**Ammonium Salts**	**Phosphates**
	Ammonium Gas	**Potassium Salts**
Weedicides	**2.4.D**	**Sodium Chlorate**
	Dinitrophenol	**Borax**
	Karmex	**Sodium arsenite**
	2.4.5.T	**Methyl bromide**
	Pentachlorophenol	
Pesticides	**DDT**	**Parathion**
	TDE	**Malathion**
	BHC	**Nicotine**
	Lindane	**MH**
	TEPP	

4.3.2 COOLING SYSTEMS - OPEN OR CLOSED

Cooling systems - including cooling towers - usually require some treatment of the water for algae, slime or corrosion control.

Chemical frequently used for this purpose may include, but are not limited to the following highly toxic chemicals:

Quaternary ammonium compounds
Pentachlorophenol
Mercury
Chromium

Chlorine	**Permanganate**
Bromine	**Glucosides**
Copper	

4.3.3 PLATING PLANTS

In plating work, materials are first cleaned in acid or caustic solutions at concentrations that are highly toxic, after which they are

mmersed in plating solutions which are highly toxic. Such solutions may contain:

Cyanides
Fluorides

OR metals in solution such as:

Copper	**Cadmium**
Chromium	**Antimony**
Nickel	**Silver salts, etc.**

4.3.4 STEAM BOILER PLANTS

Most boiler plants will use some form of boiler feed water treatment. The chemicals normally used for this purpose include but are not limited to:

Toxic compounds such as:

Cyclohexylamine
Hydrazine
Morpholine
Benzylamine

Acids
Sodium hydroxide
Sodium sulphite
Sodium phosphate
Sodium nitrate
Sodium aluminate
Sodium alginate

4.3.5 DYE PLANTS

Most solutions used in dyeing are highly toxic. The toxicity depends on the chemicals used and their concentrations. The following types or chemical groups of dyes are generally used but are not limited to:

Vat Dye
Mordant Dye
Chrome Dye
Nitro Dye
Metallized Dye
Thiazol Dye

SECTION V
FIRE SYSTEMS

Industrial fire protection systems consist of sprinklers, hose connections and hydrants. Sprinkler systems may be dry or wet, open or closed. Systems of fixed-spray nozzles may be used indoors or outdoors for protection of flammable liquid and other hazardous processes. It is standard practice, especially in cities, to equip automatic sprinkler systems with fire department pumper connections.

The primary responsibility of Georgetown Municipal Water & Sewer Service is to protect the public potable water system. The policies set forth are to determine the type of backflow prevention to be used based on the risk factor.

CLASS 1-4 - LOW HAZARD

1. Class 1 - direct connections from public water mains only; no pumps, tanks, or reservoirs; no physical connection from other water supplies; no antifreeze or other additives of any kind; all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.

2. Class 2 - same as Class 1, except that booster pumps may be installed in the connections from the street mains (Booster pumps do not affect the potability of the system; it is necessary, however, to avoid drafting so much water that pressure in the water main is reduced below 10 psi.)

3. Class 3 - direct connection from public water supply main plus one or more of the following elevated storage tanks; fire pumps taking suction from aboveground covered reservoirs or tanks; and pressure tanks (All storage facilities are filled or connected to public water only, the water in the tanks to be maintained in a potable condition. Otherwise, Class 3 systems are the same as Class 1.)

4. Class 4 - directly supplied from public mains similar to Classes 1 and 2, and with an auxiliary water supply on or available to the premises; or an auxiliary supply may be located within 1,700 feet of the pumper connection.

CLASS 5&6 - HIGH HAZARD

5. Class 5 - directly supplied from public mains, and interconnected with auxiliary supplies, such as: pumps taking suction from reservoirs exposed to contamination, or rivers and ponds; driven wells; mills or other industrial water systems; or where antifreeze or other additives are used.

6. Class 6 - combined industrial and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.

Class 1, 2 & 3 systems will require minimum protection (approved double-check valves) to prevent stagnant waters from backflowing into the public potable water system.

Classes 4 and 5 systems normally would need maximum protection (air gap or reduced pressure) to protect the public potable water system.

Class 6 system protection would depend on the requirements of both industry and fire protection, and could only be determined by a survey of the premises.

A meter (detector check) is required as part of a backflow prevention device. The meter and backflow prevention device must be specifically designed to meet GMWSS requirements.

SECTION VI

CROSS-CONNECTION/BACKFLOW PREVENTION
SAMPLE LETTERS

5.1 See Attached Letters

A. Attachment "A" - Risk Assessment Letter

B. Attachment "B" - Cross-Connection and Backflow Prevention Initial Survey

C. Attachment "C" - Requirement Letter - High Hazard
Low Hazard

D. Attachnent "D" - 2nd Notice

E. Attachment "E" - Thank You Letter

F. Attachment "F" - Periodic Test and Maintenenace Report Letter

G. Attachment "G" - Backflow Device Test Report

ATTACHMENT "A"

June 5, 1992

Mr. John Doe
East Main Street
Georgetown, KY 40324

Re: Meter at East Main Street

Dear Mr. Doe:

Cross-connection prevention is a means by which one protects the domestic water supply system from being contaminated and/or polluted by foreign substances. All water systems are subject to potential cross-connection problems.

The facility has been rated by the Georgetown Muncipal Water and Sewer Service, as a potential for cross-connection problems.

I will need the attached information concerning this subject within 30 days from receipt of this letter. Thank you for your assistance in completing this request.

Sincerely,

GEORGETOWN MUNICIPAL WATER AND
SEWER SERVICE

Cross-Connection Inspector

pc: General Manager

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

CROSS-CONNECTION PREVENTION
INFORMATION SHEET

As part of our cross-connection prevention program, we will need the following information:

1. Does your facility have approved backflow prevention valves installed on the main water service line?

Yes_____ No_____

2. Type of Valve(s), Model(s), and Serial No.(s).

_____

_____

3. Is the device routinely maintained and tested for performance?

_____

_____

_____
SIGNATURE

_____
TITLE

_____
DATE

ATTACHMENT "B"

CROSS-CONNECTION AND BACKFLOW PREVENTION
FOR CUSTOMER WATER USAGE SURVEY

1. LOCATION: _____

_____

2. LIST ANY KNOWN CROSS-CONNECTION IN YOUR BUILDING.

_____

_____

NOTE: A cross-connection is any physical connection or arrangement between two (2) otherwise separate piping systems, one (1) of which contains potable water and the other either water of unknown or questionable safety or steam, gas or chemical whereby there may be a flow from one (1) system to the other, the direction of flow depending on the pressure differential between the two (1) systems.

3. PLEASE PLACE A CHECK MARK BY ANY ITEM OF THE FOLLOWING LIST THAT MAY BE CONTAINED IN YOUR BUILDING.

Chilled Water Makeup	_____	Heating Hot Water Makeup	_____
Sterilizer	_____	Water Softener	_____
Water Cooled Bearings	_____	Ice Machine	_____
Swimming Pool	_____	Chemial Mixing Tanks	_____
Laundry Equipment	_____	Still	_____
Boiler Makeup	_____	Cooling Tower	_____
Paint Spray Booths	_____	Hoses Connected to Faucets	_____
Embalming Tables	_____	Hazardous Chemicals	_____
Radioactive Materials	_____	Vending Machines	_____
Irrigation Lines	_____	Dish or Cage Washer	_____
Meat Processing	_____	Film Developing	_____
Other	_____		

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

4. PLEASE GIVE DETAILS OF ANY ITEM CHECKED ABOVE IN SPACE PROVIDED BELOW AND LIST ANY OTHER CROSS-CONNECTIONS OR POTENTIAL CROSS-CONNECTION BELOW. DESCRIBE.

_____

_____

_____

_____

_____

_____

_____

5. DOES YOUR FACILITY HAVE APPROVED BACKFLOW PREVENTION VALVES INSTALLED ON THE MAIN WATER LINE?_____

6. IF YES TO 5 ABOVE:

TYPE OF VALVE(S)_____

MODEL(S)_____

SERIAL NO.(S)_____

IS THIS DEVICE ROUTINELY MAINTAINED AND CHECKED FOR PERFORMANCE?_____

_____	_____
OWNER	CROSS-CONNECTION INSPECTOR
_____	_____
DATE	DATE

ATTACHMENT "C"

June 1, 1992

Mr. John Doe
East Main Street
Georgetown, KY 40324

Re: East Main Street

Dear Mr. Doe:

During a recent investigation of the plumbing construction at your facility, it was revealed that a high or low hazard cross-connection exists in your facility.

The high or low hazard in your plumbing construction consists of a boilers, water softner, and a baptism pool.

The approved device that GMWSS requires is an approved reduced pressure zone assembly or an approved double check valve assembly. The device must be installed in a manner approved by GMWSS and the State Plumbing Inspector.

When a cross-connection device is properly installed, this creates a closed water system. A properly sized thermal expansion tank should be installed in the cold water supply as near the water heater as possible.

This requirement must be completed within (30) days from receipt of this letter, and the device must be tested by a tester certified by the Bluegrass Cross-Connection Prevention Association and/or approved by GMWSS within thirty (30) days of installation. Failure to comply could result in the discontinuation of your water service.

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

If you wish to appeal this process, you must do so within 30 days to GMWSS.

Sincerely,

GEORGETOWN MUNICIPAL WATER &
SEWER SERVICE

Cross-Connection Inspector

_____
Signature Upon Receipt

_____
Date

pc: Scott County Health Department
General Manager

ATTACHEMENT "D"

August 6, 1992

Mr. John Doe
East Main Street
Georgetown, KY 40324

Re: Domestic Water

Dear Mr. Doe:

On June 1, 1992, a combined form letter and Test & Maintenance Report form was mailed to you requesting that you perform the necessary periodic test for the backflow prevention assembly identified on the form. This was to have been returned to our office no later than 30 days from the date of the letter. As of today, we have neither heard from you nor received your report.

Our request is in compliance with Georgetown Municipal Water and Sewer Service rules and regulations and failure to carry out your responsibility in this matter may result in discontinuance of water service to your property.

Should you desire instructions or additional information in this matter, please notify this office.

Sincerely,

GEORGETOWN MUNICIPAL WATER AND
SEWER SERVICE

Cross-Connection Inspector

pc: General Manager

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

ATTACHMENT "E"

July 7, 1992

Mr. John Doe
East Main Street
Georgetown, KY 40324

Re: Backflow Preventor at East Main Street

Dear Mr. Doe:

This is notification that the backflow preventor installed by you has met the requirements and approval of Georgetown Municipal Water & Sewer Service (GMWSS).

GMWSS has yet to receive the test report required after installation of the device. Enclosed please find a list of certified testers and a test report form. Please return this report to our office within 10 days.

We thank you for your cooperation. If there are any further questions concerning this matter, please contact me.

Sincerely,

GEORGETOWN MUNICIPAL WATER &
SEWER SERVICE

Cross-Connection Inspector

pc: General Manager

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

ATTACHMENT "F"

August 6, 1992

Mr. John Doe
East Main Street
Georgetown, KY 40324

Re: Periodic Test & Maintenance Report
Backflow Prevention Assembly
Domestic Water

Dear Mr. Doe:

The backflow prevention assembly is due for its periodic test as required by Georgetown Municipal Water & Sewer Service's rules and regulations. Please have this test performed by a backflow prevention assembly tester possessing a valid Certificate of Competence issued by the Bluegrass Cross-Connection Association and/or a tester approved by GMWSS.

If the test discloses that the assembly is not operating satisfactorily, please have the necessary repairs made and the assembly retested by the Certified tester. On completion of a test showing that the assembly is operating satisfactorily, please return the Test & Maintenance Report form attached to GMWSS no later than 30 days from the date of this letter.

Additional information relative to this matter may be obtained by writing to Cross Connection Inspector, Georgetown Water & Sewer Service, P.O. Box 653, Georgetown, Kentucky, 40324 or calling (502) 863-7816.

Sincerely,

GEORGETOWN MUNICIPAL WATER &
SEWER SERVICE

Cross-Connection Inspector

Enclosure
pc: General Manager

P.O. Box 653 Georgetown, Kentucky 40324 502-863-7816 FAX 502-863-3575

RETURN FORM TO: ATTACHMENT "G"

GEORGETOWN MUNICIPAL WATER & SEWER SERVICE
P.O. BOX 653
GEORGETOWN, KY 40324
(502) 863-7816

BACKFLOW DEVICE TEST REPORT

OWNER:_____ TYPE:_____ SIZE:_____

ADDRESS:_____ MFG.:_____ MOD.:_____

_____ SERIAL NO.:_____

PHONE: (____)_____ VISUAL INSP.:_____ OUTSIDE TEMP.:___

CONTACT:_____ DATE:_____ TIME:_____
TEST GAUGE:_____

LOCATION OF DEVICE:_____

HOUSING FREEZE PROOF:_____ HEAT: PERMANENT_____

THERMOSTAT_____ MANUAL_____

PLEASE CHECK ONE:

PLUMBING_____ IRRIGATION_____ FIRE SERVICE_____

DATE OF LAST GAUGE CALIBRATION:_____/_____/_____

TEST

R.P.	D.C.	P.V.B.
SUPPLY PRES____PSI	SUPPLY PRES____PSI	SUPPLY PRES____PSI
RELIEF OPEN____PSI	1ST CHECK: CLOSED_____ LEAKED_____	AIR INLET OPENED _____PSI
1ST CHECK_____ 2ND CHECK_____	2ND CHECK: CLOSED_____ LEAKED_____	CHECK CLOSED_____

COMMENTS:_____

_____

CERTIFIED TESTER:

SIGNED:_____ TESTER NO._____