

January 18, 2013

Kenda Clark
717 Rhonda
Italy, TX 76651-3535



RE: CROSS CONNECTION/BACKFLOW PREVENTION ASSEMBLY
PER ORDINANCE NO. 10-1108-02

Dear Mr. Jenkins:

The City of Italy adopted an Ordinance No. 10-1108-02, the purpose of which is to protect the City's water supply from contamination or pollution due to plumbing cross-connection or backflow, pursuant to Texas Administration Code, Title 30, Part 1, Chapter 290, Subchapter D, and in particular, Sections 290.44 & 290.46.

According to the Public Works records, this address is required to have a backflow prevention device installed and tested on an annual basis.

Per Ordinance No 10-1108-02 Article II, Section 2.12 Testing of Assemblies (4) It is the responsibility of the property owner and the person in control of the premises to have all backflow prevention assemblies tested in accordance with this ordinance.

Per Ordinance No. 10-1108-02 Article V, Section 5.01 (1) A person who violates any provision of this Ordinance by performing an act prohibited or failing to perform an act required is guilty of a misdemeanor; each day the violation continues shall be a separate offense. Also be advised that the City has the right to suspend service to any premises without prior notice.

This is a service that the City of Italy can provide for a minimal fee of \$75. You may contact the Backflow Assembly Contractor of your choice, however this contractor must register with the City.

Please consider this official notice that the backflow testing requirement is past due and must be submitted to the City no later than February 7, 2013. After this date, further action will be taken by the City, which may include a citation being issued by the code enforcement division.

If you have any questions, concerns, or for a copy of this ordinance please do not hesitate to contact City Hall at 972-483-7329 X 0 or Dean Carrell, Public Works Director at 972-483-6212.

Sincerely,

Dean Carrell
Public Works Director

AI 30 TAC 290 Hach Carlibr

4/8/2013				
4/15/2013				
4/22/2013	8:00 AM	0.18	0.83	1.50
4/29/2013	8:00 AM	0.25	0.95	1.42
May				
5/6/2013	8:00 AM	0.23	0.81	1.60
5/13/2013	8:00 AM	0.21	0.89	1.52
5/20/2013	8:00 AM	0.25	0.83	1.59
5/27/2013	8:00 AM	0.10	0.80	1.46
June				
6/3/2013	8:00 AM	0.23	0.95	1.62
6/10/2013	8:00 AM	0.17	0.92	1.37
6/17/2013	8:00 AM	0.25	0.97	1.44
6/24/2013	8:00 AM	0.27	0.95	1.62
July				
7/1/2013	8:00 AM	0.23	0.96	1.65
7/8/2013	8:00 AM	0.25	0.93	1.61
7/15/2013	8:00 AM	0.27	0.89	1.70
7/22/2013	7:00 AM	0.26	0.86	1.53
7/29/2013	7:10 AM	0.27	0.92	1.69
August				
8/5/2013	7:00 AM	0.25	0.95	1.61
8/12/2013	7:00 AM	0.24	0.94	1.62
8/19/2013	7:00 AM	0.22	0.89	1.62
8/26/2013	7:00 AM	0.24	0.87	1.63
September				
9/2/2013				
9/9/2013				
9/16/2013				
9/23/2013				
9/30/2013				
October				
10/7/2013				
10/17/2013				
10/21/2013				
10/28/2013				
November				
11/4/2013				
11/11/2013				
11/18/2013				
11/25/2013				
December				
12/2/2013				
12/9/2013				
12/16/2013				
12/23/2013				
12/30/2013				

THI WATER WELL

P.O. Box 1300

Bowie, Texas 76230

(940) 872-6633 Phone

(940) 872-3461 Fax

Invoice

3572

RECEIVED

2012

To: CITY OF ITALY
P.O. BOX 840
ITALY, TX 76651

Well Location: WELL #1

Invoice Date 11/2/2012

Service Date 10/31/2012

Description	Qty	Rate	Amount
SERVICE CHARGES			
WE PULLED THE WELL FOR A GROUNDED MOTOR. THE PUMP WAS IN GOOD SHAPE. WE REPLACED THE MOTOR AND SEAL SECTION AND 2 CHECK VALVES AND PUT THE WELL BACK ONLINE.			
RIG TIME	1	3,500.00	3,500.00
MATERIALS CHARGES			
HALLIBURTON MOTOR (WARRANTY)			
HALLIBURTON SEAL (WARRANTY)			
4" CHECK VALVE(S)	2	526.48	1,052.96
AIR LINE	1,155	0.26	300.30

REGULATED BY :
THE TEXAS DEPT. OF LICENSING
AND REGULATION
P.O. BOX 12157
AUSTIN, TX 78711
800-803-9202 512-463-7880

Subtotal \$4,853.26

Sales Tax (8.25%) \$0.00

Total \$4,853.26

Payable in Bowie, TX. Terms: Due Upon Receipt 1 1/2% Interest Charged After Maturity

THI WATER WELL

P.O. Box 1300

Bowie, Texas 76230

(940) 872-6633 Phone

(940) 872-3461 Fax

Invoice

3465

To: CITY OF ITALY
P.O. BOX 840
ITALY, TX 76651

Well Location: WELL #1

Invoice Date 7/12/2012

Service Date 06/12/2012

Description	Qty	Rate	Amount
SERVICE CHARGES			
WE PULLED THE WELL BECAUSE THE WELL HAD A BAD VIBRATION AND AMP LOAD WAS GETTING TOO HIGH. WHEN WE GOT THE PUMP OUT IT WAS COMPLETELY TRASHED. WE SENT THE PUMP IN TO DETERMINE CAUSE OF FAILURE. THE PUMP WAS TORN UP BECAUSE THE WELL HAD BEEN MAKING SAND. WHEN THE PUMP FAILED, IT TORE UP THE MOTOR AND SEAL SECTION AS WELL. WE DOWNSIZED THE NEW PUMP TO AVOID SAND DAMAGE.			
RIG TIME	2	3,000.00	6,000.00
SERVICE TECHNICIAN		5,765.20	5,765.20
TRUCKING		5,334.55	5,334.55
MATERIALS CHARGES			
GICON PUMP	1	8,452.88	8,452.88
HALLIBURTON MOTOR	1	18,987.50	18,987.50
HALLIBURTON SEAL	1	10,823.75	10,823.75
MOTOR LEAD	1	3,150.00	3,150.00
SHIEAR PIN(S)	2	67.94	135.88
AIR LINE	1,155	0.26	300.30

REGULATED BY :
THE TEXAS DEPT. OF LICENSING
AND REGULATION
P.O. BOX 12157
AUSTIN, TX 78711
800-803-9202 512-463-7880

Subtotal	\$58,950.06
Sales Tax (8.25%)	\$0.00
Total	\$58,950.06

Payable in Bowie, TX. Terms. Due Upon Receipt 1 1/2% Interest Charged After Maturity

RECEIVED JUL 23 2012

F

K W UTILITIES
4793 FM 639
FROST, TEXAS 76641
2546781129/fax2546789071
kwmmeters@myway.com

Invoice

DATE	INVOICE #
1/16/2013	8139

BILL TO	SHIP TO
ITALY, City of 101 W Main St PO Box 840 ITALY, TEXAS 76651	water dept. attn: Dean C

DUE DATE	P.O. NUMBER
2/4/2013	DEAN

QUANTITY	DESCRIPTION	SHIPPED	PRICE EACH	AMOUNT
1	On Site Well #1	1		75.00
1	Clean Meter Head	1		75.00
1	Well #2 In Shop Meter Head Repair	1		175.00
1	Parts Installed	1		
1	seperator Shaft	1		25.00
1	Vertical Shaft Bearing			0.00

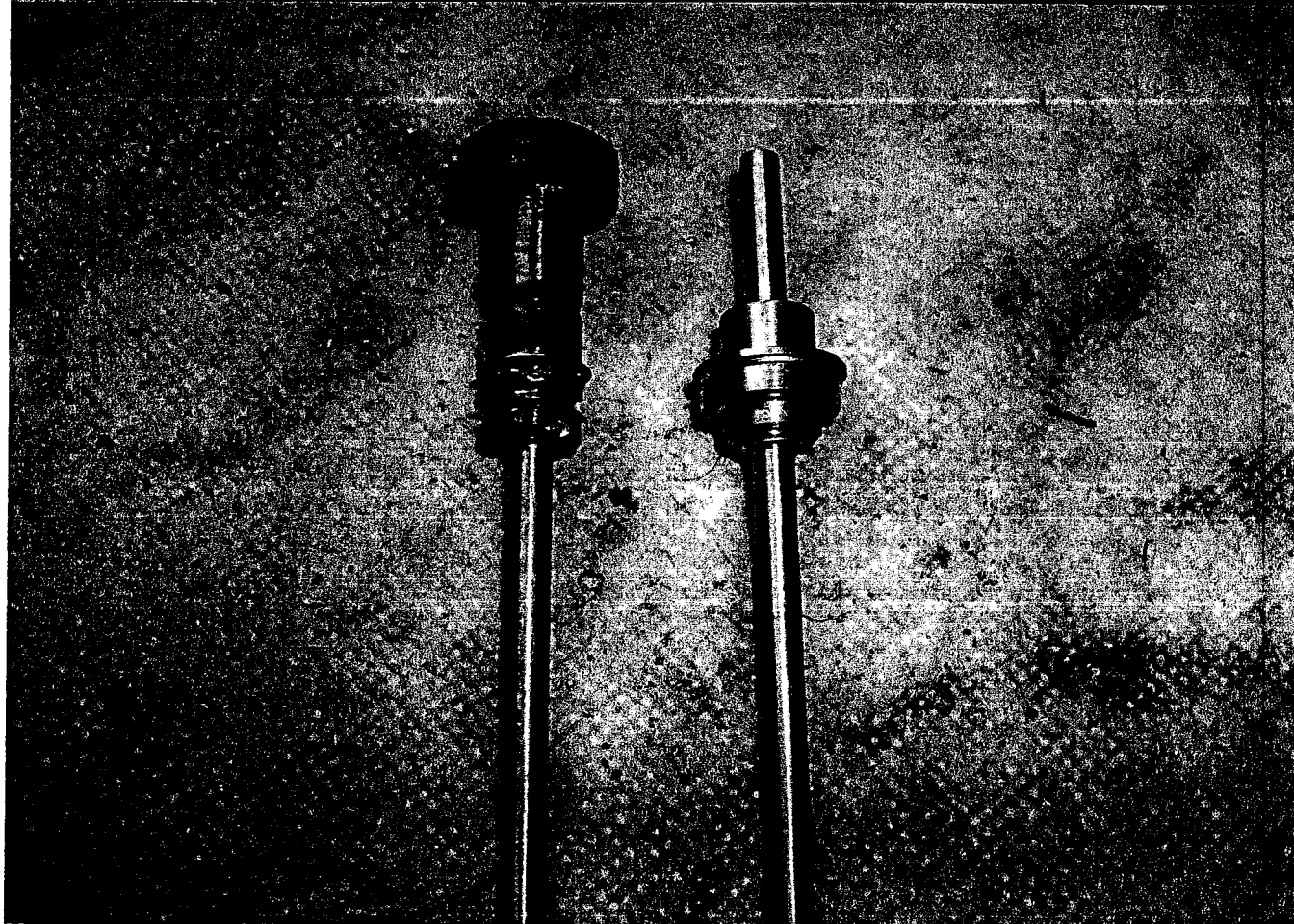
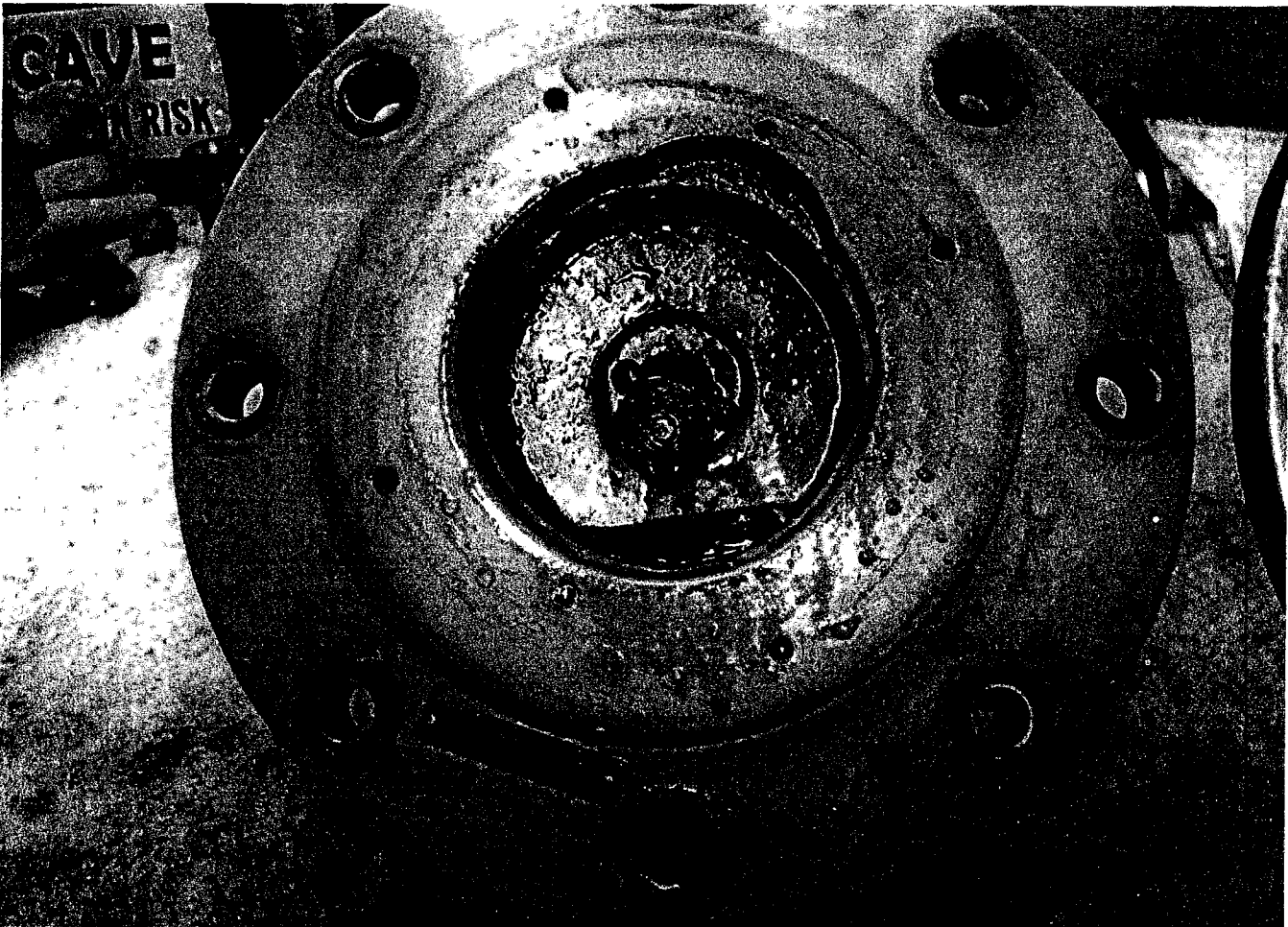
Thank you for your business!

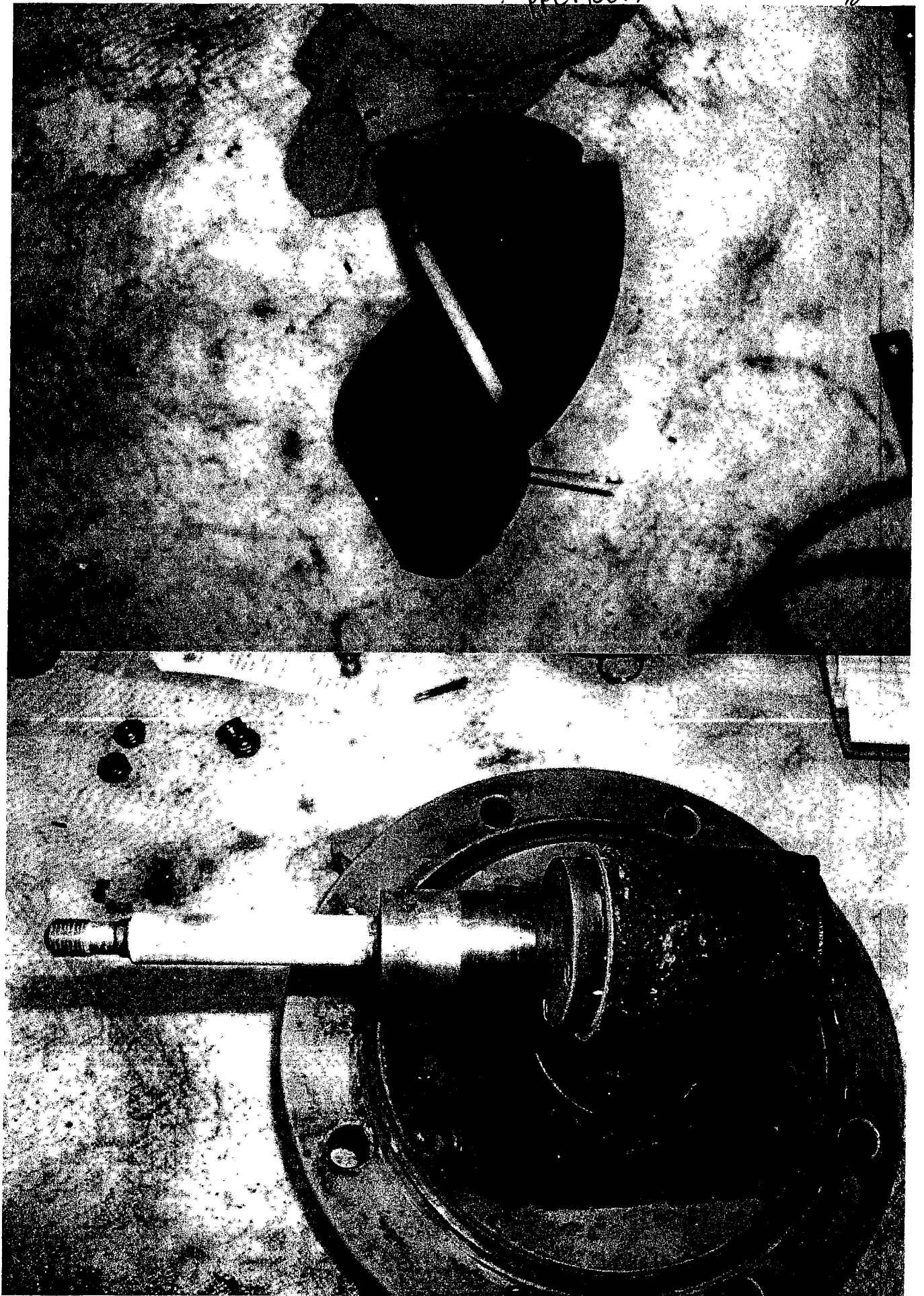


Total

350.00

7





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K W UTILITIES
"THE WATER METER PEOPLE"

4793 FM 639

FROST, TEXAS 76641

PHONE - 254 678 1129

FAX - 254 678 9071

EMAIL: KWMETERS@MYWAY.COM

"WE APPRECIATE YOUR BUSINESS"

"HUB" MEMBER OWNED BUSINESS

METER TESTING - REPAIR - SALES

DATE: April 26, 2012

TO: City of Italy

METER LOCATION: Hwy 77 Storage

METER BRAND: Water Specialties

SIZE: 6"

TYPE: Propeller Ml-03

SERIAL NUMBER: 20053938

START READING: 442741000

END READING: 442742000

CERTIFICATION OF CALIBRATION

This is to certify that the physical standards described below were, on this day, compared to the standards of the State of Texas which are directly traceable to standards of the National Bureau of Standards (NBS test numbers 39569, 40093, 179355, 225713) American Waterworks Test.

LOW FLOW:

QUANTITY:

ACCURACY:

MEDIUM FLOW:

QUANTITY:

ACCURACY:

HIGH FLOW: 176gpm

QUANTITY: 1000gal

ACCURACY: 98.6%

COMMENTS: This Meter is within AWWA Standards.

TESTED BY:



Ken Whitsitt

8/2/2012 I

K W UTILITIES
"THE WATER METER PEOPLE"

4793 FM 639
FROST, TEXAS 76641

PHONE - 254 678 1129-
FAX - 254 678 9071

EMAIL: KWMETERS@MYWAY.COM

"WE APPRECIATE YOUR BUSINESS"

"HUB" MEMBER OWNED BUSINESS

METER TESTING - REPAIR - SALES

DATE: April 26, 2012

TO: City of Italy

METER LOCATION: Clark st. Trinity # 2

METER BRAND: Water Specialties

SIZE: 4"

TYPE: Propeller MI-03

SERIAL NUMBER: 20061737

START READING: 9598200

END READING: 9599400

CERTIFICATION OF CALIBRATION

This is to certify that the physical standards described below were, on this day, compared to the standards of the State of Texas which are directly traceable to standards of the National Bureau of Standards (NBS test numbers 39569, 40093, 179355, 225713) American Waterworks Test.

LOW FLOW:

QUANTITY:

ACCURACY:

MEDIUM FLOW:

QUANTITY:

ACCURACY:

HIGH FLOW: 303gpm

QUANTITY: 1000gal

ACCURACY: 100.8%

COMMENTS: This Meter is within AWWA Standards.

TESTED BY:



Ken Whitsitt

I

K W UTILITIES
"THE WATER METER PEOPLE"

4793 FM 639

FROST, TEXAS 76641

PHONE - 254 678 1129

FAX - 254 678 9071

EMAIL: KWMETERS@MYWAY.COM

"WE APPRECIATE YOUR BUSINESS"

"HUB" MEMBER OWNED BUSINESS

METER TESTING - REPAIR - SALES

DATE: April 26, 2012

TO: City of Italy

METER LOCATION: Clark St.. Woodbine #3

METER BRAND: Sensus

SIZE: 3"

TYPE: Turbine

SERIAL NUMBER: 66904529

START READING: 18467600

END READING: 18466500

CERTIFICATION OF CALIBRATION

This is to certify that the physical standards described below were, on this day, compared to the standards of the State of Texas which are directly traceable to standards of the National Bureau of Standards (NBS test numbers 39569, 40093, 179355, 225713) American Waterworks Test.

LOW FLOW:

QUANTITY:

ACCURACY:

MEDIUM FLOW:

QUANTITY:

ACCURACY:

HIGH FLOW: 157gpm

QUANTITY: 1000gal

ACCURACY: 98.7%

COMMENTS: This Meter is within AWWA Standards.

TESTED BY:


Ken Whitsitt

H

K W UTILITIES
"THE WATER METER PEOPLE"

4793 FM 639

FROST, TEXAS 76641

PHONE - 254 678 1129

FAX - 254 678 9071

EMAIL - KWMETERS@MYWAY.COM

"WE APPRECIATE YOUR BUSINESS"

"HUB" MEMBER OWNED BUSINESS

METER TESTING - REPAIR - SALES

DATE: March 4, 2011

TO: City of Italy

METER LOCATION: City Hall Well

#1

METER BRAND: Hersey

SIZE: 4"

TYPE: Turbine

SERIAL: 7053832

START READING: 11963500

END READING: 11965600

CERTIFICATION OF CALIBRATION

This is to certify that the physical standards described below were, on this day, compared to the standards of the State of Texas which are directly traceable to standards of the National Bureau of Standards (NBS test numbers 39569, 40093, 179355, 225713) American Waterworks Test.

LOW FLOW:

QUANTITY:

ACCURACY:

MEDIUM FLOW:

QUANTITY:

ACCURACY:

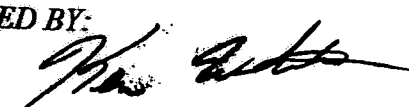
HIGH FLOW: 144gpm

QUANTITY: 1000gal

ACCURACY: 99.6%

COMMENTS: This Meter is within AWWA Standards.

TESTED BY:


Ken Whitsitt

Copy
DeAnn C.

I

K W UTILITIES
"THE WATER METER PEOPLE"

4793 FM 639

FROST, TEXAS 76641

PHONE - 254 678 1129

FAX - 254 678 9071

EMAIL: KWMETERS@MYWAY.COM

"WE APPRECIATE YOUR BUSINESS"

"HUB" MEMBER OWNED BUSINESS

METER TESTING - REPAIR - SALES

DATE: January 16, 2013

TO: City of Avalon

METER LOCATION: Wastewater Plant

METER BRAND: Sensus

SIZE: 1 1/2"

TYPE: Turbine

SERIAL NUMBER: 46386435

START READING: 25435800

END READING: 25435900

CERTIFICATION OF CALIBRATION

This is to certify that the physical standards described below were, on this day, compared to the standards of the State of Texas which are directly traceable to standards of the National Bureau of Standards (NBS test numbers 39569, 40093, 179355, 225713) American Waterworks Test.

LOW FLOW:

QUANTITY:

ACCURACY:

MEDIUM FLOW:

QUANTITY:

ACCURACY:

HIGH FLOW: 14gpm

QUANTITY: 100gal

ACCURACY: 99.5%

COMMENTS: This Meter is within AWWA Standards.

TESTED BY:

Ken Whitsitt

NSF Certified Products - Public Water Supply Treatment Chemicals



Live safer.™

Close w/
exit NSF

NSF Product and Service Listings

These Listings were Last Updated on **Thursday, February 26, 2009** at 4:15 AM Eastern Time. Please contact **NSF International** to confirm the status of any Listing, report errors, or make suggestions.

Warning: NSF is concerned about fraudulent downloading and manipulation of website text. If you have received this listing in hard copy, always confirm this certification/listing information by going directly to <http://www.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=dpc&PlantState=Texas+TX> for the latest most accurate information.

NSF/ANSI STANDARD 60 Drinking Water Treatment Chemicals - Health Effects

DPC INDUSTRIES COMPANY

300 JACKSON HILL
P.O. BOX 130410
HOUSTON, TX 77219-0410
281-457-4888

Cert-Link™
(Click here to visit this
Company's Website)

Facility : CLEBURNE, TX

Chlorine[CL]
Trade Designation
Chlorine

Product Function
Disinfection & Oxidation

Max Use
30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in finished drinking water to ensure compliance to all applicable regulations.

NOTE: All Listed products from this facility are NSF Certified, whether or not they bear the NSF Mark.

DPC INDUSTRIES, INC.

Cert-Link™
(Click here to visit this
Company's Website)

H

Material Safety Data Sheet

Provided by:

DPC Industries, Inc.

DX Distributors, Inc.

DPC Enterprises

DX Systems Company

DXI Industries, Inc.

DX Terminals

PO Box 24600
Houston, Tx 77229-4600
281-457-4888
www.dxgroup.com

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Product Name** CHLORINE**Synonyms****Chemical Name** CHLORINE**Emergency phone:** 281-457-4888**Chemtrec:** 800-424-9300**Date of Issue:** 10/1/00**Revised Date:** N/A**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS****COMPONENTS**

CHLORINE

PERCENT**CAS NO.**

> 99%

7782-50-5

SECTION 3 - HAZARDS IDENTIFICATION**Potential Health Effects****ACGIH - TLV:** 0.5 ppm**Eye Contact** CONTACT MAY CAUSE EYE BURNS.**Skin Contact** CONTACT MAY CAUSE BURNS AND TISSUE DESTRUCTION.**Ingestion** NOT A LIKELY ROUTE OF EXPOSURE.**Inhalation** COUGHING, BURNING, CHEST PAIN, VOMITING, HEADACHE, ANXIETY AND FEELING OF SUFFOCATION. SEVERE EXPOSURE MAY CAUSE PNEUMONITIS AND PULMONARY EDEMA.**Carcinogenicity:** NTP NO IARC NO OSHA NO**SECTION 4 - FIRST AID PROCEDURES****Eye Contact:** IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.**Skin Contact:** IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF AVAILABLE OR FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. GET MEDICAL ATTENTION.**Inhalation:** REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.**Ingestion:** DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER, IF CONSCIOUS. GIVE LARGE QUANTITIES OF WATER OR MILK AND GET IMMEDIATE MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**SECTION 5 - FIRE FIGHTING MEASURES****Flash Point** NOT APPLICABLE**Extinguishing Media** USE MEDIA FOR SURROUNDING MATERIALS.

12/21/2006 09:42 8176414799

DPC CLEBURNE

PAGE 03/03

**Special Firefighting
Procedures/Precautions**

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.
STAY UPWIND AND KEEP OUT OF LOW AREAS.

SECTION 6 - ACCIDENTAL RELEASE MEASURES**For Spill:**

EVACUATE UNNECESSARY PERSONNEL UPWIND OF SPILL AREA. CONTAIN LIQUIDS AND PREVENT DISCHARGES INTO WATERWAYS AND SEWERS. CONTROL OR STOP THE LOSS OF VOLATILE MATERIAL TO THE ATMOSPHERE. DO NOT APPLY WATER TO THE LEAK. CHLORINE CAN BE ABSORBED INTO AN ALKALINE SOLUTION SUCH AS CAUSTIC SODA, SODA ASH, OR LIME.

SECTION 7 - HANDLING AND STORAGE

Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area away from direct sunlight, heat and incompatible materials. Protect containers from physical damage.

FOLLOW SAFETY PROCEDURES FOR CONTAINERS OF COMPRESSED GASES. PROVIDE SPECIAL TRAINING TO WORKERS HANDLING CHLORINE. STORE IN WELL-VENTILATED AREA OF LOW FIRE POTENTIAL AND AWAY FROM INCOMPATIBLE MATERIALS. REGULARLY TEST AND INSPECT PIPING AND CONTAINMENT VESSELS.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**Respiratory Protection**

USE A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS WHERE DUST OR MIST MAY BE GENERATED.

Ventilation

LOCAL AND MECHANICAL RECOMMENDED.

Protective Gloves

CHEMICAL IMPERVIOUS GLOVES.

Eye/Face Protection

CHEMICAL SAFETY GOGGLES AND/OR FULL-FACE SHIELD.

Other Protection

CHEMICAL RESISTANT CLOTHING SUCH AS COVERALLS/APRON, BOOTS, ETC. EMERGENCY SHOWER AND EYEWASH FACILITY SHOULD BE IN CLOSE PROXIMITY.

Work Practices

USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F): -29.3

Vapor Pressure (mmHg): 2748

Freezing Point (°F): -150

Vapor Density (Air=1): 2.49

Solubility (H₂O): NEGLIGIBLE

Specific Gravity (H₂O=1): 1.4

pH 5.5

Evaporation Rate:

NOT APPLICABLE.

Appearance/Odor: AMBER COLOR LIQUID, GREENISH-YELLOW GAS. PUNGENT IRRITATING ODOOR.

SECTION 10 - STABILITY AND REACTIVITY**Chemical Stability:**

YES

Incompatible Materials:

AVOID CONTACT WITH REDUCING AGENTS. KEEP AWAY FROM MATERIALS SUCH AS ACETYLENE, TURPENTINE & OTHER HYDROCARBONS, AMMONIA, HYDROGEN, ETHER, METALS, SULFUR, & ALUMINUM.

Decomposition Products:

REACTS WITH HYDROGEN SULFIDE AND WATER FORMING HYDROCHLORIC ACID. COMBINES WITH CARBON MONOXIDE AND SULFUR DIOXIDE FORMING PHOSGENE AND SULFURYL CHLORIDE.

Hazardous Polymerization:

WILL NOT OCCUR.

H

SECTION 11 - TOXICITY INFORMATION

LC50 (rat) = 293 ppm

SECTION 12 - ECOLOGICAL INFORMATION

LC50/96HR/RAINBOW TROUT/14-291 UG/L
LC50/96HR/STRIPED BASS/140-230 UG/L
LC50/48HR/WATER FLEA/30-150 UG/L
LOEC PGR/5-10 DAY/GREEN ALGAE/760-1520 UG/L

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSE OF WASTE MATERIALS ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 14 - TRANSPORT INFORMATION

USA DOT Shipping Name: CHLORINE

Hazard Class: 2.3 (POISON-INHALATION HAZARD, ZONE B)

UN/NA Number: UN1017

Packing Group: NOT APPLICABLE

Subsidiary Hazard: CORROSIVE

Marine Pollutant: YES

SECTION 15 - REGULATORY INFORMATION

CERCLA RQ (lbs): 12

SARA Title III Section 312:

☒ Acute ☒ Chronic ☐ Flammable ☒ Sudden Release of Pressure ☒ Reactive

SARA Title III Section 313: Yes

SARA Extremely Hazardous Substance: Yes

HMS HAZARD RATING

Health: 4

Fire: 0

Reactivity: 0

0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Extreme

SECTION 16 - OTHER INFORMATION

EPA Pesticide Registration Number:

813-10

NSF Maximum Use Level for Potable Water (Standard 60):

30 mg/l

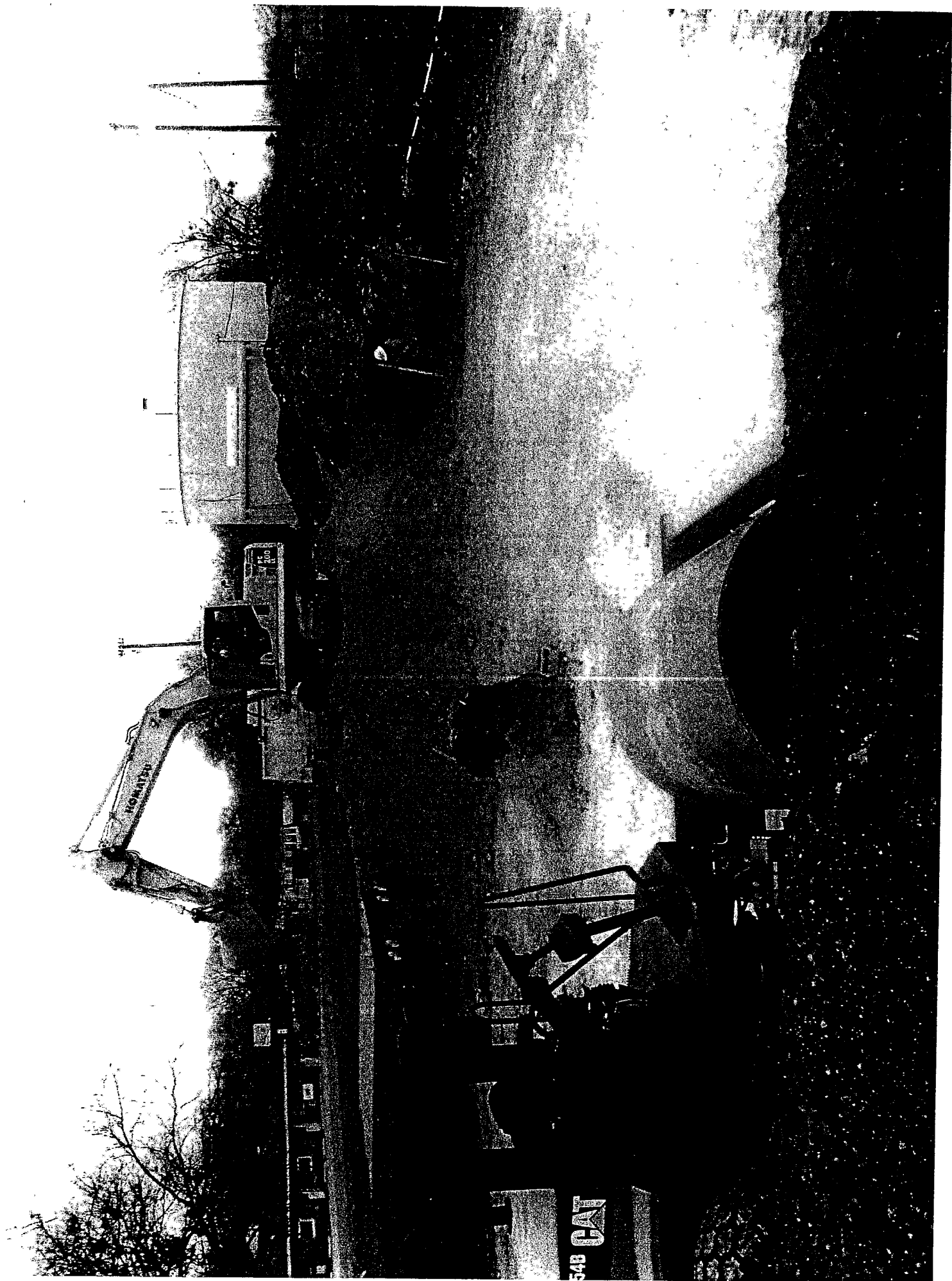
TSCA (Toxic Substance Control Act), 40 CFR 710:

Sources of the raw materials used in this mixture assure that all chemical ingredients present are in compliance with Section 8(b) Chemical Substance Inventory, or are otherwise in compliance with TSCA.

DISCLAIMER

THE DATA PRESENTED IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF; HOWEVER, NEITHER SELLER NOR PREPARER MAKES ANY WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE INFORMATION PRESENTED. THE USER IS CAUTIONED TO PERFORM HIS OWN HAZARD EVALUATION AND TO RELY UPON HIS OWN DETERMINATIONS.

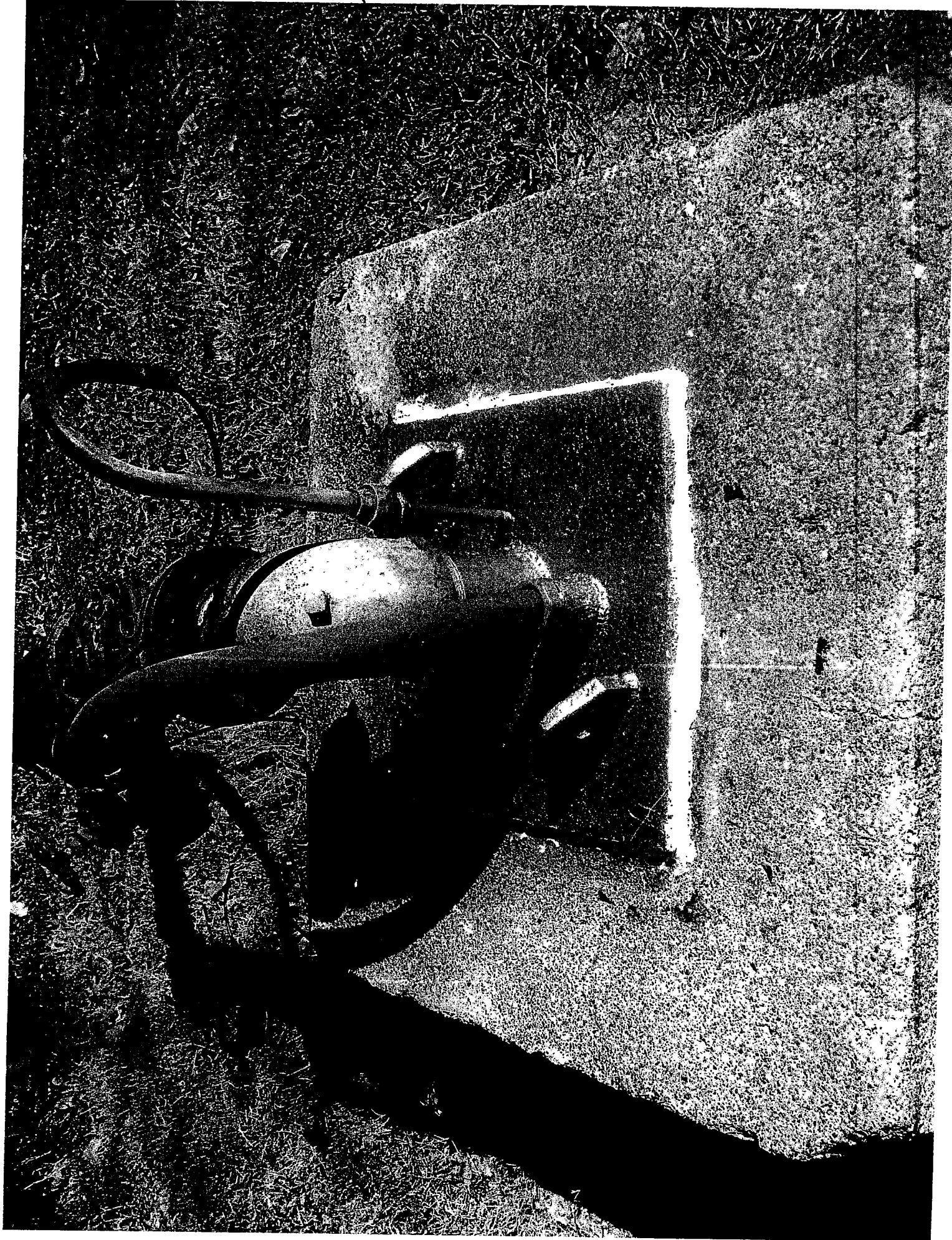
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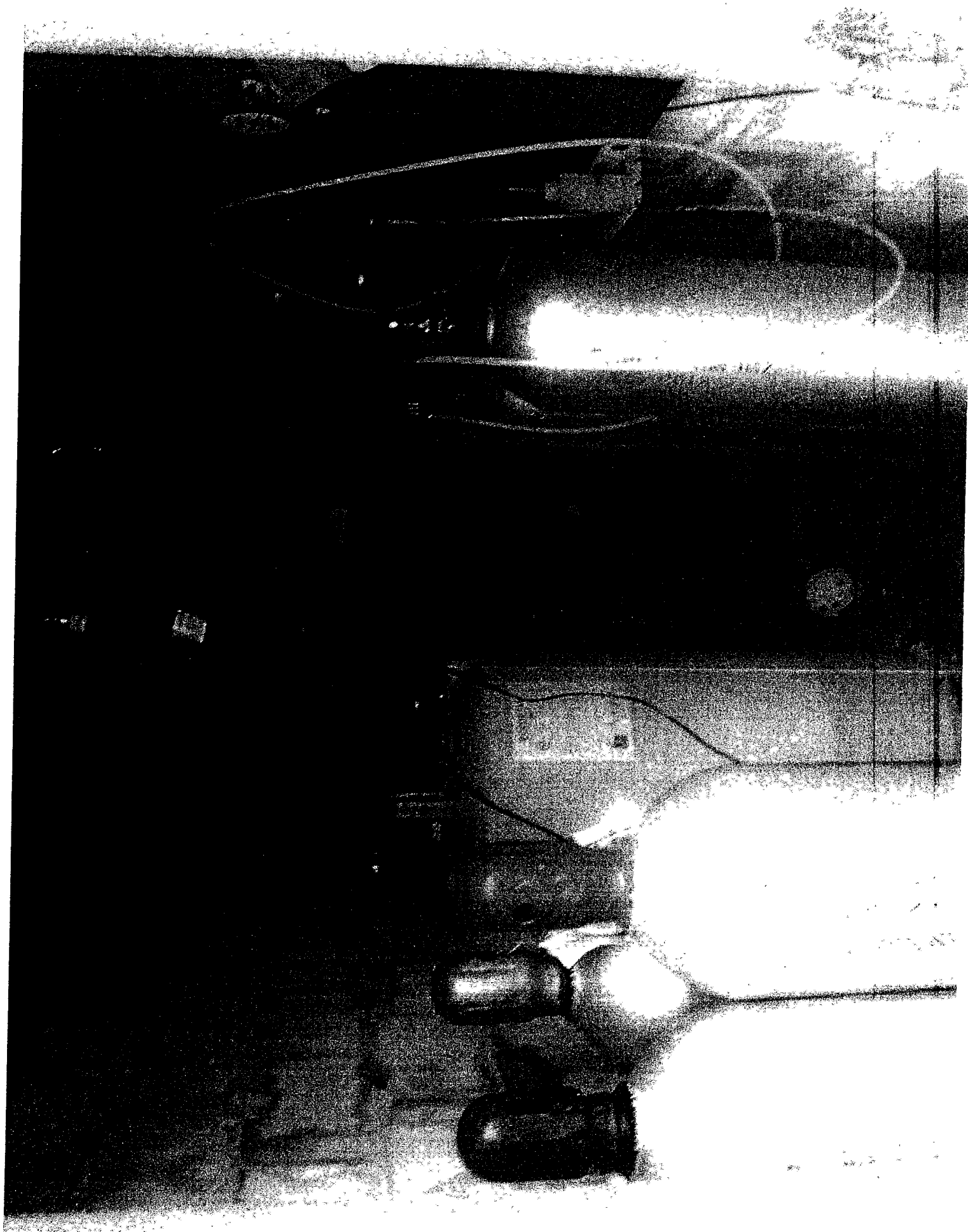
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Appendix 1



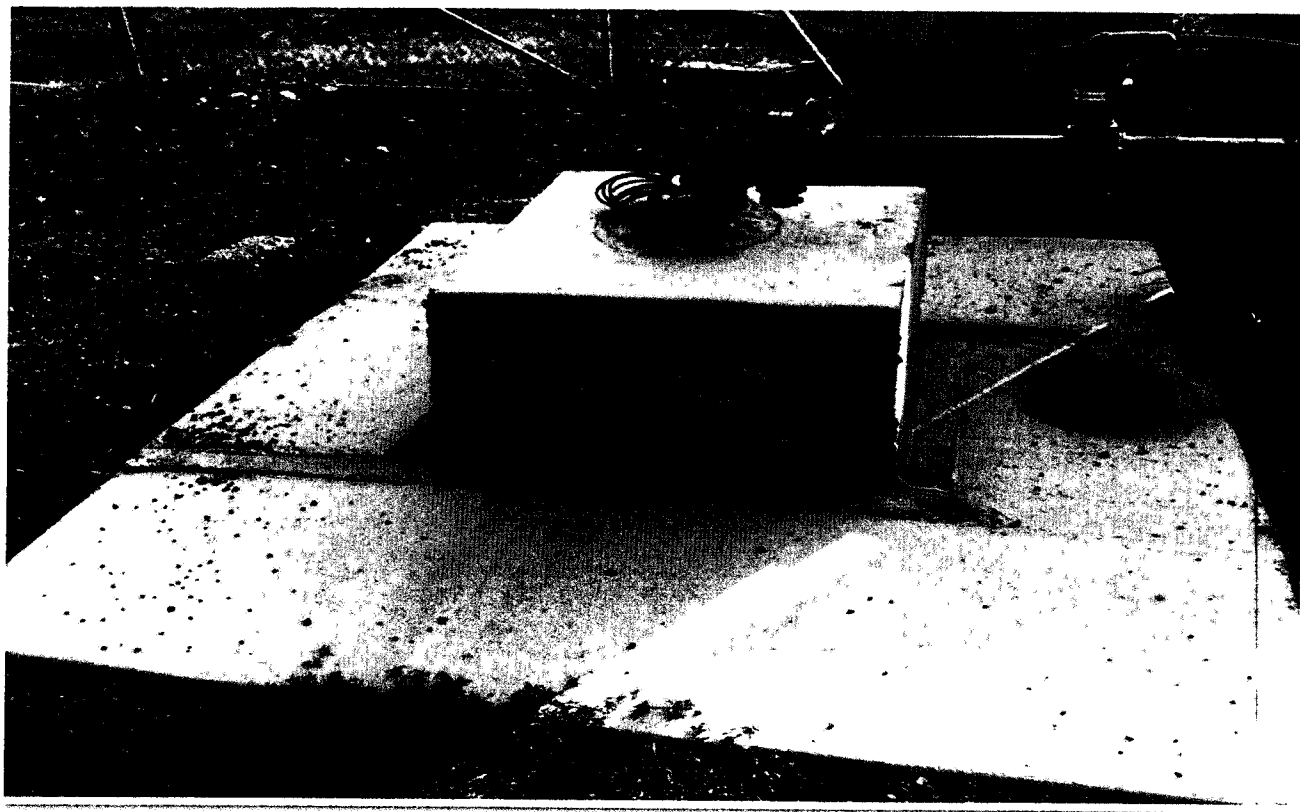
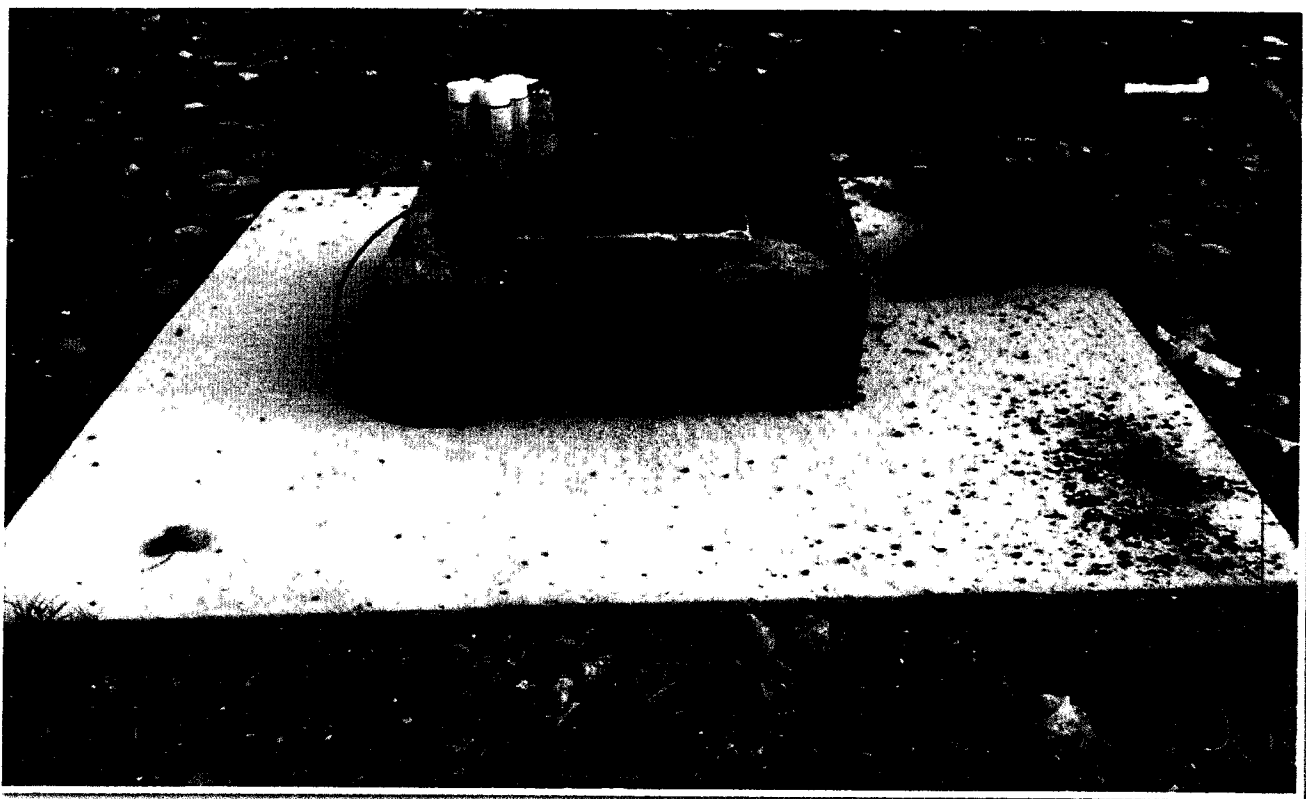
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Appendix 2



See Appendix 09





COPY

CITY OF ITALY, TEXAS

ONGOING WASTEWATER COLLECTION SYSTEM
ANALYSIS AND WATER CONSERVATION PLAN

WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

Prepared by:

The C.T. Brannon Corporation
1321 South Broadway
P.O. Box 7487
Tyler, Texas 75711

903/597-2122

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SECTION 1 INTRODUCTION

Utilization of ALL State resources is manatory if affordable development is to occur on a statewide basis. Water, a basic human need, will be a major factor in development. Conservation of water is necessary if we are to meet future needs for our most valuable resource.

Passage of House Bill 2 and House Joint Resolution 6 by the Texas Legislature and the voters of Texas tend to reflect that the need for conservation of water resources has been recognized and is a high priority item for State Officials. As evidence of the State Official's concern for water conversation, the Texas Water Commission included in the April 27, 1993 pending enforcement action the requirement for the city of prepare and implement a Water Conservation and Dought Contingency Plan.

A. PLANNING AREA -- PROPOSED PROJECT

The study or planning area will consist of the entire City of Italy. An area of 1.57 square miles. The City is located in Ellis County approximately 45 miles from south of Dallas, Texas. Ground elevation varies in elevation from 600 feet to 505 feet above sea level. Major drainage facilities are privately owned and consist of open unimproved ditches.

The current project includes:

1. Design and replacement of deterieated santiary sewer manholes throughout the City.
2. Rehabilitation and replacement of sanitary sewer manholes throughout the City.
3. Design and construction of lift stations in four (4) areas of the City. The new lift stations will eliminate smaller multiple stations and provide a new service to unsewered areas.
4. Rehabilitation of one (1) lift station.
5. Design and construction of an enlargement of the wastewater treatment plant.

Pending successful application to the Farmer's Home Administration the City intends to proceed with construction of these sewer system improvements plus treatment plant expansion.

B. CONTINGENCY PLAN

System improvements including infrastructure and educational enhancements to promote water conservation and provide a plan of action in the event of drought will be developed from study and evaluation of existing conditions.

C. UTILITY EVALUATION DATA

1.	Population of service area	1,748		
2.	Area of service area (sq miles)	1.57		
3.	Number and type of equivalent 5/8" meter connections in service area			
	5/8"-3/4" meters	1" meters	2" meters	
	Residential	679	4	0
	Commercial	51	0	4
	Industrial	0	1	1
4.	<u>Net rate</u> of new connection additions per year (new connections less disconnections)	3		
5.	Water Use Information:			
a.	Water production for the last year	57,296,000		
b.	Average water production for last 2 years	60,323,500		
c.	Average monthly water production for last 2 years	5,026,958		
d.	Estimated monthly water sales by User category.			
	Residential	3,688,700		
	Commercial/Institutional	556,900		
	Industrial	86,200		
	Total	4,331,800		
e.	Average daily water use (all customers, gallons) calendar year ending 1992	142,000		
f.	Peak daily use (all customers) July 1992, 254,000 gallons/715 customers, (gallons per customer per day)	356		
g.	Peak to average use ratio (average daily summer use divided by annual average daily use)	1.30		
h.	Unaccounted for water (% of water production), 1992	9.28%		
6.	Wastewater Information			
a.	Percent of your potable water customers sewered by your wastewater treatment system (before expansion of collection system)	96%		
b.	Percent of potable water customers who have septic tanks or other privately operated sewage disposal systems	4%		
c.	Percent of potable water customers sewered by another wastewater treatment utility	0%		

- d. Percent of potable water sales to the three categories described in F(1), F(2), and F(3).
- 1) Percent of total sales to customers you serve with sewer 97.4%
 - 2) Percent of total sales to customers who are on septic tanks or private disposal systems 2.6%
 - 3) Percent of total sales to customers who are on other wastewater treatment systems 0%
- e. Average daily volume (gallons) of wastewater treated for the months 1/92 - 12/92 364,000
- f. Peak daily wastewater volume (highest 24-hour flow (gallons))
- | | |
|------|-----------|
| 1992 | 1,500,000 |
| 1991 | 1,440,000 |
- g. Estimated average percent of wastewater flows to your treatment plant that originate from the following categories:
- | | |
|------------------------------|-----|
| Residential | 65% |
| Industrial and manufacturing | 1% |
| Commercial/institutional | 24% |
| Storm water | 10% |
| Other, explain | 0% |
7. Safe annual yield of water supply (millions gallons) 198
8. Peak daily design capacity of water system (Million gallons) 0.667
9. Major high-volume water customers (list):
- | <u>User</u> | <u>Quantity (gal/year)</u> |
|-------------------|----------------------------|
| Italy I.S.D. | 2,319,500 |
| American Manor | 1,594,900 |
| Jamieson Mfg. Co. | 1,034,000 |
| Italy Washateria | 835,200 |
| Roy Crownover | 708,100 |
| James Carter | 271,600 |
| Stiller Co. | 269,500 |
| Jerry Tekell | 250,700 |
| Pic Mauldin | 217,400 |
| Kelley Wilsford | 215,900 |

10. Population wastewater volume projections
- | Year | Population Potential | Daily Avg. MGD | Per Capita GPCD | Daily Max. MGD | Per Capita GPCD |
|-------|----------------------|----------------|-----------------|----------------|-----------------|
| 1990* | 1,699 | 0.364 | 158 | 728 | 428 |
| 1995 | 1,916 | 0.400 | 209 | 0.800 | 418 |
| 2000 | 2,152 | 0.448 | 208 | 0.896 | 416 |
| 2005 | 2,376 | 0.473 | 199 | 0.946 | 398 |
| 2010 | 2,658 | 0.632 | 238 | 1.264 | 476 |
| 2015 | 2,860 | 0.665 | 233 | 1.330 | 465 |
| 2020 | 3,100 | 0.695 | 224 | 1.390 | 448 |
- *Actual
11. Percent of water supply connection in system metered:
- | | |
|-------------|------|
| Residential | 100% |
| Commercial | 100% |
| Industrial | 100% |
12. Water rate structure:
- Residential**
- | | |
|--------------------------------|---------|
| First 3,000 gallons (minimum) | \$12.00 |
| Each 1,000 gallons (per 1,000) | \$4.00 |
- Commercial**
- | | |
|--------------------------------|---------|
| First 2,000 gallons (minimum) | \$12.00 |
| Each 1,000 gallons (per 1,000) | \$4.00 |
13. Average annual revenues from water and wastewater rates:
- | | |
|------------|-----------|
| Water | \$254,500 |
| Wastewater | \$154,100 |
14. Average annual water/sewer revenues from non-rate derived sources (such as taps, fees, interest, etc.):
- \$8,500
15. Average annual fixed costs of operation (water and wastewater):
- \$223,500
16. Average annual variable costs of operation (water and wastewater):
- \$62,800
17. Average annual water or wastewater revenues used for other purposes including debt service and contingency fund (if applicable):
- \$130,800

18. Applicable local regulations:
Extension Policy
Rate Ordinance
19. Applicable State, Federal, or other regulations: As a Public Water Supply, the City of Italy must abide by the rules of the following agencies:
 - a. Texas Water Commission
 - b. Texas Department of Health
 - c. Environmental Protection Agency

D. NEEDS AND GOALS

Immediate foreseeable needs consist of supplying sewer service to two (2) distinct neighborhoods within the corporate limits of Italy, reconstruction and rehabilitation of the sanitary sewer system and enlarging the wastewater treatment plant.

Homeowners and user education will be emphasized in the City of Italy Conservation Plan to meet the 69th Texas Legislature (1985) requirements as dictated by House Bill (HB) 2, and House Joint Resolution (HJR) 6. The following plan has been prepared to meet requirements of the Texas Water Commission.

A substantial reduction in water consumption will also be noticeable in wastewater facility requirements if conservation is implemented within the household. Education of homeowners is necessary if a conservation plan is to succeed in effectively reducing water use and wastewater treatment requirements.

The City of Italy, through customer education, city maintenance and operation, city planning and implementation of planning elements, establishes a dual goal.

- * First, a reduction in water usage of 12% per capita is established.
- * Second, water unaccounted for is to be maintained at below 10%. These two items are related in implementation and can be attained from outlined planning elements.

Production, storage, and distribution capabilities of the existing potable water system and wastewater treatment efficiencies can be greatly enhanced if State requirements are implemented for water conservation.

Achieving the established goal will conserve our most valuable resource, water. It will also enable existing facilities to provide service for economic growth and additional customers without further expenditures for expansion.

E. PUBLIC INVOLVEMENT

The City of Italy Council meets in regular session the 1st Tuesday of each month. Meeting agenda is posted in accordance with State law, 72 hours before the meeting, listing items for discussion and items to be acted upon by City Officials. Meetings are open to the public and the public is given an opportunity to speak and voice their views and opinions.

Public hearings for city wide projects, grant applications, and other items which normally consume a large amount of time, are heard at special announced meetings. Discussions are normally very informal in order to encourage more public input.

City meetings are attended by representatives of local newspapers. These news media sources provide excellent distribution of events and subjects.

SECTION 2

LONG TERM WATER CONSERVATION PLAN

A. PLANNING ELEMENTS

1. Education and Information

The City of Italy will inform city users of various recommended methods for reducing water consumption. Generally, a majority of water consumption in a City is consumed by residential customers. Therefore the target area for educational information is to be the majority user.

a. First year program or activities will consist of eight (8) activities:

- 1) A fact sheet explaining the Conservation Plan will be developed and distributed.
- 2) An article will be placed in newspaper, correlated with fact sheet distribution.
- 3) Each new customer will be provided with "Homeowner's Guide to Water Use and Water Conservation".
- 4) A newspaper article advising water customers that Homeowner's Guide is available at City Hall will be published in a local paper.
- 5) One (1) brochure will be mailed to water customers, "Water . . . Half-A-Hundred Ways to Save It".
- 6) News articles elaborating on brochure items will be published.
- 7) One (1) brochure, either "How to Save Water Outside the Home", or "How to Save Water Inside the Home" will be mailed to customers.
- 8) News article highlighting certain methods for saving water will be published.

b. Long-term program will consist of five (5) activities each year after the first year:

- 1) New brochures emphasizing new or innovative means for conserving water will be mailed.
- 2) Newspaper article targeting one particular household water-using utility or item and methods for conserving water (dishwasher, shower, toilet, laundry) will be published.
- 3) A brochure relating to outside household use (car washing, lawn watering, time of day, etc.) will be mailed out in May.
- 4) Newspaper items conciding to brochure mail out will be published.

- 5) Continued distribution of Homeowner's Guide to customers will be made.

The City will stock resource materials available from the Texas Water Development Board and other agencies or organizations which provide pertinent information or data.

2. Codes

The Title 5 Health and Safety Code has been amended to include Senate Bill 587 passed May 27, 1991 as summarized below. The bill is included as Appendix D of this plan.

Summary Subtitle E
New Water Conservation Standards for Residential and Commercial Plumbing Fixtures
S.B. 587 Passed May 27, 1991
Amending Title 5 Health and Safety Code, Subtitle E, Chapter 421

Lavatory and sink faucets or faucet aerators (60 psi)	NTE* 2.2 gallons per minute
Shower heads (80 psi)	NTE 2.75 gallons per minute
Flush valve urinal	NTE 1.0 gallons per flush
Toilets	NTE 1.6 gallons per flush
Flush valve toilets (wall mounted)	NTE 2.0 gallons per flush
All hot water lines	Insulated
Swimming pools	New pools must have recirculating Filtration equipment
Drinking foundations	Must be self closing

*NTE - Not to Exceed

3. Water Conservation Retrofit Program

The City of Italy will encourage customers to utilize low demand fixtures and appliances through proposed educational sources described in this plan. The City will advise customers of low water demand items, shower heads, toilet dams, etc., by mail outs and/or publication of newspaper articles, emphasizing the importance of water saving devices. The City will contact local suppliers of plumbing supplies advising suppliers of water saving drive content. Suppliers will be requested to stock low water-using fixture.

4. Meter Replacement

Meter readers will classify apparent condition of all city meters during the following six (6) months from plan adoption. During this same period, all meters larger than one (1) inch will be tested, and retested each year thereafter. The second year, a testing program will be initiated for all meters one (1) inch or smaller. Repairing is to begin in areas with poor classification rated by meter

readers. Proposed plan will provide testing of all meters one (1) inch and smaller at least once during a period not to exceed ten (10) years. Annual testing of large meters, testing, maintaining, and replacement of inoperative meters will enable water consumption to be tracked thus providing a more efficient conservation plan.

5. Water Conservation Landscaping

Educational material will include information relating to low water use landscaping. The City reviews and approves subdivision plans. Subdividers and builders, at the time building permits are acquired, will be provided with literature pertaining to low water demand landscaping items. Area nurseries will also be provided with mentioned literature.

6. Water Audits and Leak Detection

The City of Italy will continue to monitor monthly consumption. Classification of meter condition will be implemented in this plan which will provide a reliable and effective leak detection program. Unaccounted for water will be maintained below 10% per year.

7. Recycling and Reuse

Area industrial customers will be contacted to determine if reuse and recycling is being employed. Wastewater reuse, at this time is limited to wastewater plant hosedown, irrigation and similar intraplant operations which features are being made part of the proposed treatment plant improvements. Location of wastewater treatment plant with relation to industrial users is not conducive. The City is not located in an arid section of Texas.

8. Means of Implementation and Enforcement

The Mayor, through his staff, will implement the plan in accordance with Council adoption of the plan, adoption of plumbing codes and revisions thereof as set out in this plan. Enforcement will be provided by:

- a. Refusing to provide taps for customers who do not meet requirements for water conservation fixtures as established by plumbing code.
- b. Nonpayment of water bills will trigger prompt discontinuation of service. Service will be disconnected.
- c. Analysis of water rates and adjusting rates to eliminate conservation plan abuse.

9. Contracts with other Political Subdivisions

Any political subdivision and/or wholesale customer contracting for water from the City of Italy must have:

- a. an approved Texas Water Development Board water conservation and drought contingency plan in effect or
- b. must officially adopt applicable provisions of the City of Italy Water Conservation and Drought Contingency Plan.

B. ANNUAL REPORTING

The City through adoption of this plan, commits to report to the Executive Director of the Texas Water Development Board annually, within sixty (60) days after the anniversary date of loan closing. The report to the Director will contain information describing:

1. Progress in conservation plan implementation
2. Public response to plan implementation and operation
3. Quantitative effectiveness with reference to:
 - a. System water production
 - b. Reduction in customer or per capita use
4. List of public information released during the year.

SECTION 3 DROUGHT CONTINGENCY PLAN

A. THRESHOLD CONDITION

The Texas Water Development Board suggests three (3) levels or conditions for determining degree of urgency for initiation of drought contingency plans. These three (3) levels of drought conditions are as follows and relate to the City of Italy system.

1. **MILD DROUGHT** occurs when:
 - a. Average daily water consumption reaches 90% of production capacity, and
 - b. Consumption at 90% of production capacity has existed for a period of three (3) days, and
 - c. Long, cold, or dry weather periods are predicted.
2. **MODERATE DROUGHT** conditions are reached when:
 - a. Average daily water consumption reaches 100% of rated production capacity for a three-day period.
 - b. Weather forecasts indicate mild drought conditions will exist five (5) days or more.
 - c. One (1) ground storage tank, or one (1) elevated storage tank, or one (1) clear well is taken out of service during mild drought period.
 - d. Storage water level is not being maintained during period of 100% rated production period.
 - e. Existence of any one (1) listed condition for a duration of 36 hours.
3. **SEVERE DROUGHT** classification is reached when:
 - a. Average daily water consumption reaches 110% of production capacity.
 - b. Average daily water consumption will not enable storage levels to be maintained.
 - c. System demand exceeds available high service pump capacity.
 - d. Any two (2) conditions listed in moderate drought classification occurs at the same time for a 24-hour period.
 - e. Water system is contaminated either accidentally or intentionally. Severe condition is reached immediately upon detection.
 - f. Water system fails -- from acts of God (tornados, hurricanes) or man. Severe condition is reached immediately upon detection.

B. DROUGHT CONTINGENCY MEASURES

The Water Conservation and Drought Contingency Ordinance adopted and included as part of this plan, enable the Mayor to initiate action that will effectively implement the Plan. The following steps are recommended.

1. Step 1

- A.** Step 1 measures related to mild drought conditions and will initiate the following listed action.
 - a.** Develop information center and designate information person.
 - b.** Advise public of condition and publicize availability of information from center.
 - c.** Encourage voluntary reduction of water use.
 - d.** Contact commercial and industrial users and explain necessity of initiation of strict conservation methods.
 - e.** Implementation of system oversight and make adjustments as required to meet changing conditions.

2. Step 2

Step 2 curtailment is to be initiated by Mayor upon identifying moderate drought conditions. Listed action is compulsory on users and is intended to prohibit water waste. "Water waste" is defined as washing house windows, siding, eaves, and roof with hose, without use of bucket; washing driveways, streets, curbs and gutters, washing vehicles without cutoff valve and bucket, and unattended sprinkling of landscape shrubs and grass; draining and filling swimming pools and flushing water system.

- a.** Outdoor residential use of water will be permitted on alternate days. Even number house on even days of the month and odd number house on odd number days. Outdoor residential uses consist of washing vehicles, boats, trailers, landscape sprinkler systems and irrigation, recreational use of sprinklers, outside showers (in parks) and water slides.
- b.** The Mayor will monitor system function and establish hours for outside water use, depending upon system performance.
- c.** Commercial and industrial use will be visited to insure volunteered conservation has been initiated.

3. Step 3

Step 3 curtailment shall be initiated upon existence of severe conditions as determined by the Mayor. The Mayor will ban the use of water for:

- a.** Vehicle washing, window washing, outside watering (lawn, shrubs, faucet dripping, garden, etc.);
- b.** Public water uses which are not essential for health, safety, and sanitary purposes. These include: street washing, fire hydrant flushing, filling pools, athletic fields and courses and dust control sprinkling.

- c. Commercial uses not listed and industrial uses will be controlled to the extent dictated by the Mayor.

Businesses requiring water as a basic function of the business such as nurseries, commercial car wash, laundromats, high pressure water cleaning, etc., will obtain WRITTEN PERMISSION from the Mayor for intended water use.

The System Priority for maintaining water service shall be made on the following basis from highest to lowest priority: 1) hospitals, 2) residences, 3) schools, 4) industrial and manufacturing, 5) commercial including restaurants, car washes and laundromats, and 6) recreational.

C. INFORMATION AND EDUCATION

The public will be made aware of conservation and drought conditions by information and data transfer through the City's annual program. During periods of drought curtailment, Step 1 conditions establish an information center, an information person, and utilize the most effective methods developed for information dissemination on a daily basis.

Close observation of the first year information program should develop the most effective ways to communicate with customers. Posting notices, newspaper articles, radio coverage, and direct mail to customers will be used during the first year activities.

D. INITIATION PROCEDURES

Each condition of drought severity will be met with corresponding action by the Mayor. The Mayor will affect curtailment, give notice, publicize, and follow with implementation of curtailment.

E. TERMINATION OF CURTAILMENT

Termination of each drought condition will be when that specific condition has been improved to the extent that an upgraded condition can be declared by the Mayor. This process will be employed until full service can be provided. System priority will be considered in return to upgraded condition, returning hospitals, schools, etc., in priority order.

F. MODIFICATION, DELETION, AND AMENDMENT

The Mayor can add, delete, and amend rules, regulations, and implementation as needed/desired, and shall advise City Council of such amendments at it's next regular or called meeting.

G. MEANS OF IMPLEMENTATION

City Council adoption of this Plan, Drought Contingency Ordinance, and modification of Plumbing Code Ordinance will enable the city to implement and carry out enforcement of enacted ordinances to make the Plan effective and workable.

APPENDIX A

TEXAS WATER DEVELOPMENT BOARD

WATER CONSERVATION LITERATURE

TITLE	PUBLISHED by	DESCRIPTION	LENGTH
Water...Half-a-Hundred Ways to Save It*	TWDB	pamphlet	8 pages
Water Saving Ideas for Business and Industry*	TWDB	Pamphlet	8 pages
How to Save Water Outside the Home	TWDB	Pamphle	8 pages
How to Save Water Inside the Home	TWDB	Pamphlet	8 pages
A Homeowner's Guide to Water Use and Water Conservation*	TWDB	Booklet	22 pages
Drip Irrigation*	TWDB	Pamphlet	6 pages
Lawn Watering Guide*	TWDB	3 1/2" x 5"Card	2 sides
Toilet Tank Leak Detector Tablets*	TWDB	2 Tablets	
Municipal and Commercial Water Conservation and Drought Contingency Planning and Program Development	TWDB	Loose-leaf	36 pages
How to Xeriscape	NXC	Pamphlet	10 pages
Texas Sesquicentennial Native Plant Landscape	TDA/TWDB	Pamphlet	8 pages
Guide for Locating and Reducing Unaccounted for Water Through the Use of the Water Audit and Leak Detection	TWDB	Guidebook	30 pages
Guide for Designing Conservation Water Rate Structures	TWDB	Guidebook	30 pages
Model Water Ordinances	TWDB	Guidebook	25 pages
The Authority of Cities, Water Utilities, and Water Districts to Regulate and Enforce Water Conservation Measures	TWDB	Paper	5 pages
Texas Water Resources and Conservation	TWDB	Paper	38 pages
Efficient Use of Water in the Garden and Landscape (B-1496)	TAEX	Booklet	20 pages
Xeriscape+	City of Austin	Booklet	21 pages
Water Pressure Reducing Valves+	Watts Regulator	Booklet	21 pages
Texas Native Tree and Plant Directory, 1986+	TDA	Book	161 pages
Sources of Leak Detection Equipment and Services+TWDB		List	2 pages
Sources of Water Saving Devices+			
Treatment	TWDB	Paper	9 pages
Potential for Utilization of Brackish Groundwater+	TWDB	Paper	21 pages
Guidelines for Water Reuse EPA-600/8-80-036+	EPA	Book	105 pages
Guidelines for Municipal Water Conservation and Drought Contingency Planning and Program Development+	TWDB	Loose-leaf	36 pages
Water Conservation and Drought Contingency Plan Development Procedures+	TWDB	Loose-leaf	58 pages
Municipal Water Conservation Workshop Notebook	TWDB	Notebook	6 sections

+These items are available either in single copies or in the Municipal Water Conservation Notebook. However, the Board is not able to give out the notebook, but can loan a copy for a period of two (2) weeks.

*Order in lots of 1,000

Abbreviations:

AWWA	American Water Works Association
EPA	Environmental Protection Agency
HPUWCD #1	High Plains Underground Water Conservation District #1
NXC	National Xeriscape Council, Inc.
SCS	USDA - Soil Conservation Service
TAEX	Texas Agricultural Extension Service
TDA	Texas Department of Agriculture
TWDB	Texas Water Development Board

APPENDIX B

PUBLIC INFORMATION SUGGESTIONS

This section has been reproduced, in part, from Texas Water Development Board Bulletin, titled "Water...Half-A-Hundred Ways to Save It".

POSSIBLE SAVINGS WITH WATER CONSERVATION

For approximately \$10.00 to \$15.00 the average homeowner can install two (2) low-flow showerheads, place dams or bottles in the toilet tanks, put low-flow aerators on the faucets, and repair dripping faucets and leaking toilets. This could save from 10,000 to 25,000 gallons per year for a family of four, and would pay for itself, in less than a year. Even more water could be saved if good outdoor conservation is practiced for lawns and gardens.

A. IN THE BATHROOM

1. Take a shower instead of filling the tub and taking a bath. Showers usually use less water than tub baths.
2. Install a low-flow shower head which restricts the quantity of flow at 60 psi to no more than 3.0 gallons per minutes.
3. Take short showers and install a cutoff valve or turn the water off while soaping and back on again only to rinse.
4. Do not use hot water when cold will do. Water and energy can be saved by washing hands with soap and cold water; hot water should only be added when hands are especially dirty.
5. Reduce the level of the water being used in a bath tub by one or two inches if a shower is not available.
6. Turn water off when brushing teeth until it is time to rinse.
7. Do not let the water run when washing hands. Instead, hands should be wet, and water should be turned off while soaping and scrubbing and turned on again to rinse. A cutoff valve may also be installed on the faucet.
8. Shampoo hair in the shower. Shampooing in the shower takes only a little more water then is used to shampoo hair during a bath and much less than shampooing and bathing separately.
9. Hold hot water in the basin when shaving instead of letting the faucet continue to run.
10. Test toilets for leaks. To test for a leak, a few drops of food coloring can be added to the water in the tank. The toilet should not be flushed. The customer can then watch to see if the coloring appears in the bowl within a few minutes. If it does, the fixture needs adjustment or repair.
11. Use a toilet tank displacement device. A one-gallon plastic milk bottle can be filled with stones or with water, recapped, and placed in the toilet tank. This will reduce the amount of water in the tank, but still provide enough for flushing. (Bricks which some people use for this purpose are not recommended, since they

crumble eventually and could damage the working mechanism, necessitating a call to the plumber.) Displacement devices should never be used with new low-volume flush toilets.

12. Install faucet aerators to reduce water consumption.
13. Never use the toilet to dispose of cleaning tissues, cigarette butts, or other trash. This can waste a great deal of water and also places an unnecessary load on the sewage treatment plant or septic tank.
14. Install a new low-volume flush toilet that uses 3.5 gallons or less per flush when building a new home or remodeling a bathroom.

B. IN THE KITCHEN

1. Use a pan of water (or place a stopper in the sink) for rinsing pots and pans and cooking implements when cooking, rather than turning on the water faucet each time a rinse is needed.
2. Never run the dishwasher without a full load. In addition to saving water, expensive detergent will last longer and a significant energy saving will appear on the utility bill.
3. Use the sink disposal sparingly, and never use it for just a few scraps.
4. Keep a container of drinking water in the refrigerator. Running water from the tap until it is cool is wasteful. Better still, both water and energy can be saved by keeping cold water in a picnic jug on a kitchen counter to avoid opening the refrigerator door frequently.
5. Use a small pan of cold water when cleaning vegetables rather than letting the faucet run.
6. Use only a little water in the pot and put a lid on it for cooking most food. Not only does this method save water, but food is more nutritious since vitamins and minerals are not poured down the drain with the extra cooking water.
7. Use a pan of water for rinsing when hand washing dishes rather than running the faucet.
8. Always keep water conservation in mind, and think of ways to save in the kitchen. Small kitchen savings from not making too much coffee or letting ice cubes melt in a sink can add up in a year's time.

C. IN THE LAUNDRY

1. Wash only full load when using a automatic washing machine (32 to 59 gallons are required per load).
2. Use the lowest water level setting on the washing machine for light loads whenever possible.
3. Use cold water as often as possible to save energy and to conserve the hot water for uses which cold water cannot serve. (This is also better for clothing made of today's synthetic fabrics.)

D. FOR APPLIANCES AND PLUMBING

1. Check water requirements of various models and brands when considering purchasing new appliance that uses water. Some use less water than others.
2. Check all water line connections and faucets for leaks. If the cost of water is \$1.00 per 1,000 gallons, one could be paying a large bill for water that simply goes down the drain because of leakage. A slow drip can waste as much as 170 gallons of water EACH DAY, or 5,000 gallons per month, and can add as much as \$5.00 per month to the water bill.
3. Learn to replace faucet washers so that drips can be corrected promptly. It is easy to do, costs very little, and can represent a substantial amount saved in plumbing and water bills.
4. Check for water leakage that the customer may be entirely unaware of, such as a leak between the water meter and the house. To check, all outdoor faucets should be turned off, and the water meter should be checked. If it continues to run or turn, a leak probably exists and needs to be located.
5. Insulate all hot water pipes to avoid the delays (and wasted water) experienced while waiting for the water to "run hot".
6. Be sure the hot water heater thermostat is not set too high. Extremely hot settings waste water and energy because the water often has to be cooled with cold water before it can be used.
7. Use a moisture meter to determine when house plants need water. More plants die from over-watering than from being on the dry side.

E. OUT-OF-DOOR USE

1. Water lawns early in the morning during the hotter summer months. Much of the water used on the lawn can simply evaporate between the sprinkler and the grass.
2. Use a sprinkler that produces large drops of water, rather than a fine mist, to avoid evaporation.
3. Turn soaker hoses so the holes are on the bottom to avoid evaporation.
4. Water slowly for better absorption, and never water in high winds.
5. Forget about watering the streets and walks or driveways. They will never grow a thing.
6. Condition the soil with compost before plating grass or flower beds so that water will soak in, rather than run off.
7. Fertilize lawns at least twice a year for root stimulation. Grass with a good root system makes better use of less water.
8. Learn to know when grass needs watering. If it has turned a dull grey-green or if footprints remain visible, it is time to water.
9. Do not water too frequently. Too much water can overload the soil so that air cannot get to the roots and can encourage plant diseases.
10. Do not over-water. Soil can absorb only so much moisture and the rest simply runs off. A timer will help, and either a kitchen timer or an alarm clock will do.

An inch and one-half of water applied once a week will keep most Texas grasses alive and healthy.

11. Operate automatic sprinkler systems only when the demand on the city's water supply is lowest. Set the system to operate between 4:00 am and 6:00 am.
12. Do not scalp lawns when mowing during hot weather. Taller grass holds moisture better. Rather, grass should be cut fairly often, so that only 1/2 to 3/4 inch is trimmed off. A better looking lawn will result.
13. Use a watering can or hand water with the hose in small areas of the lawn that need more frequent watering (those near walks or driveways, or in especially hot, sunny spots).
14. Learn what types of grass, shrubbery, and plant do best in the area and in which parts of the lawn, and then plant accordingly. If one has a heavily shaded yards, no amount of water will make roses bloom. In especially dry sections of the state, attractive arrangements of plants that are adapted to arid or semi-arid climates should be chosen.
15. Consider decorating areas of the lawn with rocks, gravel, wood chips, or other materials now available that require no water at all.
16. Do not "sweep" walks and driveways with the hose. Use a broom or rake instead.
17. Use a bucket of soapy water and use the hose only for rinsing when washing the car.

SECTION 4 APPENDIX C

CONSERVATION/DROUGHT CONTINGENCY PLAN ORDINANCE ORDINANCE NO. 232

AN ORDINANCE ADOPTING A CITY OF ITALY WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN; PROVIDING A PENALTY OF NOT LESS THAN \$10 PER DAY NOR MORE THAN \$200 PER DAY FOR EACH DAY OF NON-COMPLIANCE AND/OR DISCONNECTION OF WATER SERVICES TO SUCH USERS BY THE CITY; DECLARING A PUBLIC NEED OF AN EMERGENCY NATURE FOR THE ADOPTION HEREOF ON ONE READING; PROVIDING FOR PUBLICATION AND ORDAINING OTHER MATTERS RELATED TO THE FOREGOING.

BE IT ORDAINED BY THE CITY OF ITALY, TEXAS

WHEREAS, the City Council has determined there is a urgent need in the best interest of the City of Italy, Texas, to adopt a Water Conservation Plan an Drought Contingency Plan, and the City Council further determines that such public need is of an emergency nature and the legal requirement of two (2) required separate readings of the subject ordinance be dispensed with and waived;and

WHEREAS, the City Council of the City now desires to evidence its approval of the Water Conservation/Drought Contingency Plan and adopt such plan as an official policy of the city; now, THEREFORE,

BE IT ORDAINED BY THE CITY OF ITALY, TEXAS:

SECTION 1: Approval of the Plan: The City Council hereby approves and adopts as the City's Water Conservation Plan, and the Water Conservation/Drought Contingency Plan attached hereto as Exhibit "A" to be included in full as a part of this Ordinance as if recited verbatim herein. The City commits to implement the program according to the procedures set forth in the adopted plan.

SECTION 2: The City shall report to the Texas Water Development Board annually on the implementation and effectiveness of the Plan in accordance with the outline set forth in the Plan.

SECTION 3: In regards to implementation and enforcement of the Conservation/Drought Contingency Plan the Mayor is designated as the official responsible for implementation and enforcement, and the following guidelines are adopted:

1. Mild drought occurs when:
 - a. Average daily water consumption reaches 90% of production capacity, and
 - b. Consumption at 90% of production capacity has existed for a period of three (3) days, and
 - c. Long, cold, or dry weather periods are predicted.
2. Moderate drought conditions are reached when:
 - a. Average daily water consumption reaches 100% of rated production capacity for a three-day period.

- b. Weather forecasts indicate mild drought conditions will exist five (5) days or more.
 - c. One (1) ground storage tank, one (1) elevated storage tank, or one (1) clear well is taken out of service during mild drought period.
 - d. Storage water level is not being maintained during period of 100% rated production period.
 - e. Existence of any one (1) listed condition for a duration of 36 hours.
3. Severe drought classification is reached when:
- a. Average daily water consumption reaches 110% of production capacity.
 - b. Average daily water consumption will not enable storage levels to be maintained.
 - c. System demand exceeds available high service pump capacity.
 - d. Any two (2) conditions listed in moderate drought classification occurs at the same time for a 24-hour period.
 - e. Water system is contaminated either accidentally or intentionally. Severe condition is reached immediately upon detection.
 - f. Water system fails -- from acts of God (tornados, hurricanes) or man. Severe condition is reached immediately upon detection.

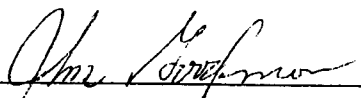
In the event severe classification conditions persist (Item 3 above) for an extended period of time, the City may ration water usage and/or terminate service to selected users of the system in accordance with the following sequence: 1) recreational users, 2) commercial users, 3) industrial users, 4) school users, 5) residential users, 6) hospitals, public health and safety facilities.

SECTION 4: Users of City water except the City, that do not comply with Section 3 of this Ordinance shall be subject to a penalty and fine of not less than \$10.00 per day nor more than \$200 per day for each day of non-compliance and/or disconnection or discontinuance of water services to such users by the City.

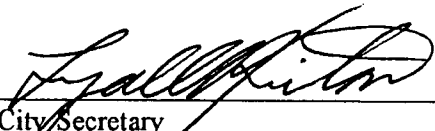
SECTION 5: The City Council finds and declares that a sufficient written notice of the date, hour, place, and subject of this meeting of the City Council was posted at a designated place convenient to the public at the City Hall for the time required by law preceding this meeting and that such place of posting was readily accessible at all times to the general public; that hall of the foregoing was done as required by law; and that this meeting has been open to the public as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered, and formally acted upon.

The City Council further rectifies, approves, and confirms such written notice and the contents and posting thereof.

PASSED AND APPROVED THIS 6th day of July, 1993.



Mayor



City Secretary

**SECTION 4
APPENDIX D**

**AMENDMENT TO THE PLUMBING CODE
ORDINANCE NO. 233**

AN ORDINANCE AMENDING THE PLUMBING CODE OF THE CITY OF ITALY, TEXAS BY ADOPTING APPENDIX J (WATER CONSERVATION) OF THE STANDARD PLUMBING CODE, 1985 EDITION COMPILED AND PUBLISHED BY THE SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL, INC., AS AMENDED BY THIS ORDINANCE; PROVIDING A PENALTY NOT TO EXCEED \$200.00 FOR EACH VIOLATION THEREOF; PROVIDING FOR PUBLICATION AND ORDAINING OTHER MATTERS RELATED TO THE FOREGOING.

BE IT ORDAINED BY THE CITY OF ITALY:

SECTION 1: The Plumbing Code of the City of Italy, Texas, is hereby amended by adopting Appendix J (Water Conservation) of the Standard Plumbing Code, 1985 Edition published by the Southern Building Code Congress International, Inc.

SECTION 2: That Appendix J of Standard Plumbing Code, 1985 Edition published by the Southern Building Code Congress International, Inc. adopted by Section 1 of this Ordinance is hereby amended to add the following paragraphs:

J107 - Swimming Pools "All new swimming pools installed in the City of Italy after the effective date of this Ordinance shall be equipped with recirculating filtration equipment."

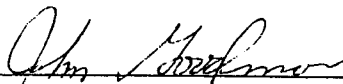
J108 - Hot Water Pipe All above ground hot water piping shall be insulated in FSK Jacket or Armaflex Jacket.

SECTION 3: That any violation of the provisions of the said Appendix J of the Standard Plumbing Code adopted pursuant to the Section 1 of this Ordinance shall be punishable by a fine not to exceed \$200.00 upon conviction.

SECTION 4: That the Mayor of the City of Italy, Texas is hereby authorized and directed to cause a true and correct copy of the caption of this Ordinance to be published in a newspaper having general circulation in City of Italy, Ellis County, Texas, and as an amendment to be published in the Plumbing Code of the City of Italy, Texas.

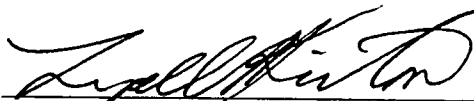
SECTION 5: That the Elective Council of the City of Italy hereby determines that there is a urgent need in the best public interest of the City of Italy, Texas to adopt this Ordinance and that such public need is of an emergency nature and the legal requirements of two separate readings of this Ordinance is hereby dispensed with and waived.

PASSED AND APPROVED THIS 6th day of July, 1993.



Mayor

City of Italy



City Secretary

**SECTION 4
APPENDIX E**

**WATER RATE STRUCTURE
CONSERVATION ORIENTED WATER RATE STRUCTURE**

RESIDENTIAL AND COMMERCIAL

\$12.00	First 2,000 gallons plus:
\$1.00 each 1,000 gallons	Each additional 1,000 gallons

SECTION 4 APPENDIX J

WATER CONSERVATION STANDARD PLUMBING CODE, 1985

J101 - General: Automatic flushing devices of the siphonic design shall not be used to operate urinals.

J102 - Water closets: Water closets, either flush tank or flushometer operated, shall be designed, manufactured, and installed to be operable and adequate flushed with no more than 4.0 gallon per flushing cycle when tested in accordance with applicable standards.

J103 - Urinals: Urinals shall be designed, manufactured, and installed to be operable and adequate flushed with more than 1.5 gallons of water per flush.

J104 - Lavatory Facilities, J104.1 - Public Facilities: Faucets for public lavatories shall be equipped with outlet devices which limit the flow of water to a maximum of 0.5 gpm or be equipped with self-closing valves that limit delivery to a maximum of 0.25 gallons of hot water for recirculating systems and to a maximum of 0.5 gallons for non-recirculating systems. EXCEPTION: Separate lavatories for physically handicapped persons shall not be equipped with self-closing valves.

J104.2 - Private Facilities: Faucets for private lavatories shall be designed, manufactured, and installed to deliver water at a flow rate not to exceed 3.0 gpm when tested in accordance with applicable standards.

J105 - Shower Heads: Showerheads shall be designed, manufactured, and installed to deliver water at a rate not to exceed 3.0 gpm when tested in accordance with applicable standards.

J106 - Sink Faucets: Sink faucets shall be designed, manufactured, and installed to deliver water at a rate not to exceed 3.0 gpm when tested in accordance with applicable standards.