Indiana Utilities Corporation
123 West Chestnut Street
Corydon, IN 47112

October 5, 2011

Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
PO Box 615
Frankfort, Ky 40602-0615

RECEIVED
OCT 14 2011
PUBLIC SERVICE
COMMISSION

RE: Case No. 2011-00213, Data Request

To Whom It May Concern:

Listed below is the information requested by number.

1. We are required by Indiana Pipeline Safety to sample our odorant monthly. Currently we check our odorant level monthly at the end of our pipeline. Prior to the closing of the Sherman Minton Bridge it took our company about forty-five minutes to get to our pipeline from our office. Changing from weekly to monthly odorant readings would save us approximately two hours of work time weekly. Weekly readings also tie up other employees in that if we have one employee in Kentucky we have to pull a worker from our construction crew to do locates, connects, and leak calls.
2. Until our last Kentucky inspection we had checked our odorant readings monthly at the end of our pipeline, since the last inspection we have tried to get weekly odorant readings at the end of our pipeline in Indiana. The readings are attached:
3. Indiana Utilities employees work varied amounts of time in Kentucky based on the weather. Our company visits our station in Louisville a minimum of once monthly to change our pressure charts, twice yearly to check cathodic protection readings and visit five miles of pipe were we have twenty test points. We conduct leak surveys once a year and clean the regulators yearly. In addition to those sixteen visits we also do all locates which in the construction season can averages over one a week, during the winter season locates may require a trip once a month.
4. Our odorator is calibrated twice annually by Verification Services, Inc. These were performed most recently on 01/12 /2011 & 06/07/2011. Copies of calibrations are attached.
5. Attached are maps requested of system. NOTE: For our distribution main in Louisville all five miles of pipe are located in class 3 locations. A potential impact radius (PIR) is about 100' feet from the pipeline. There are two schools near our pipeline; they are an estimated 600' and 500' feet away from the pipeline. Being so far away from the pipeline, we do not consider them as high consequence areas.
6. Attached copies of Indian Utilities current Operation and Maintenance Manual.

Sincerely,

Corey Thatcher

INDIANA UTILITIES CORPORATION

ODORANT LEVEL REPORT

LOCATION IUC shop (midway in system) NO. _____

DATE	INTENSITY			ODOROMETER READING	REMARKS	TECHNICIAN
	MILD	AVERAGE	STRONG			
1-4-11			✓			
1-10-11			✓	.40		KK
1-17-11			✓	.70		
1-18-11				ADJ ODORANT		
1-19-11			✓	.60		
1-31-11				.40		
2-14-11				.70		
2-21-11				.85	ADJ ODORANT	
2-28-11				.65	ADJ ODORANT	CB
3-14-11			✓	.40		
3-21-11				.70	ADJ ODORANT	
3-28-11			✓	.50		
4-18-11				1.10		
4-19-11				.95	ADJ ODORANT	
4-28-11					ADJ ODORANT	
5-2-11			✓	.50		
5-16-11				.80	ADJ ODORANT	
5-18-11			✓	.45	ADJ ODORAINT	
5-23-11				.42		
6-6-11				.70		
6-22-11			✓	.50		
6-27-11		✓		.80	ADJ ODORANT	
7-5-11				.65		

INDIANA UTILITIES CORPORATION

ODORANT LEVEL REPORT

LOCATION Tyson feed mill Cin of line

NO. _____

DATE	INTENSITY			ODOROMETER READING	REMARKS	TECHNICIAN
	MILD	AVERAGE	STRONG			
1-10-11		✓		.60		K K
1-17-11		✓		1.00		
1-31-11				.70		
2-14-11				.90		
2-21-11				1.07		
2-28-11				1.08		CB
3-14-11		✓		.85		
3-28-11		✓		.80		
5-16-11				.90		
5-23-11				.80		
6-13-11				.70		

Invoice

VERIFICATION SERVICES, INC.
P.O. BOX 4047
EVANSVILLE, INDIANA 47724
(812) 768-6438
FAX: (812) 768-5501

DATE	INVOICE #
1/12/2011	37788

BILL TO:

Indiana Utilities Corp.
123 W. Chestnut Street
Corydon, IN 47112

P.O. NUMBER	TERMS	PROJECT
	Net 30	

QUANTITY	DESCRIPTION	RATE	AMOUNT
1	Service Report No. 57150	67.50	67.50
	Semi-annual service to Heath Odorator, S/N 2515-5		
	Subtotal - Service Report No. 57150		67.50
	Shipping & Handling	36.27	36.27
	7% Indiana Sales Tax	7.00%	2.54

TOTAL $106.31

FROM :VERIFICATION SERVICES INC FAX NO. :8127685501 Oct. 05 2011 08:29AM P4

Indiana Utilities Corporation

Operations & Maintenance Manual

May 23, 2011

Indiana Utilities Corporation
123 West Chestnut St.
Corydon, IN. 47112

Date: May 23, 2011

To: All Operating and Maintenance Personnel

The attached O & M plan was originally adopted on October 25, 1982 and revised periodically. Please discard the old plan and replace it with this plan. This O & M plan shall be reviewed and updated as necessary once a year or within every 15 months from the date of the last plan.

This plan is designed to outline specific actual inspection, operations and maintenance procedures that effect the safe and continuous operation of the system.

It is your responsibility to be thoroughly aware of the contents of this plan, to follow this plan while performing work related activities and make recommendations for its improvements. The plan has been adopted to comply with all applicable Federal Regulations.

Frank Czeschin
President

Those attending meeting on 5/23/2011

_____ _____

_____ _____

_____ _____

_____ _____

Indiana Utilities Corporation
123 West Chestnut St.
Corydon, IN. 47112

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Frank Czeschin
President

Those attending meeting on 5/23/2011

NATURAL GAS SYSTEM

INSPECTION

OPERATIONS AND MAINTENANCE

PROCEDURES

Policy: Indiana Utilities Corporation plans to inspect, operate and maintain its distribution system in a manner which will conform to or exceed the minimum requirements of the State and Federal Standards. This plan will be reviewed and revised (if necessary) annually.

Last Revision 6/05

Table of Contents

Last Revision 5/09

General Information - Description of System

1. The purchase point is with Texas Gas Transmission Corp., located on Stonestreet road in Louisville, Kentucky.

2. An Intercity Distribution Line transports gas from the purchase point to its final point of Corydon. This natural gas system operates in Class's 1, 2 & 3 locations. All segments of pipeline operate less than 20% of SMYS.

    a. In Kentucky - approximately 5 miles of 4" and 8" steel line exists from the purchase point to the Ohio River, approximately one mile of 8" steel and 4 miles of 4" steel. No Customers are served in Kentucky.

    b. Three 4" steel lines cross the Ohio River, two of the three lines are active and in service.

    c. In Indiana - approximately 2000 feet of 4" steel line exists from the Ohio River to Riverside Station.

    d. The steel pipe specifications are:

        * 4-1/2" OD, .237 wall API 5LX-42 ERW
        * 8-5/8 OD, .188, .219, and .250 wall API 5L-X42 ERW
        * Ohio River crossings are .337 wall
        * SMYS is 42,000 and Normal operating pressure is 250 to 350 psig, with a MAOP of 366 psig (effective 7/18/89).

    e. Approximately 15 miles of 6" steel line exists from Riverside Station to the Corydon City Gate Station and 3 miles of 6" steel line from the Corydon City Gate Station to the Industrial Park Station. The MAOP of this section is 250 psig.

    f. The steel pipe specifications are:

        * 6-5/8" OD, .156 and .188 wall API 5LX-42 ERW
        * SMYS is 42,000 and Normal operating pressure is 150 psig, with a MAOP of 250 psig (effective December, 2000).

    g. The Elizabeth System consists of steel and polyethylene pipe in sizes of 3/4", 1—1/4", 1-1/2", 2", 4, and 6". The System is operated at 10 psig and the MAOP is 40 psig. There are approximately 152 customers in Elizabeth.

    h. The New Middletown System consists of steel and polyethylene pipe in sizes of 3/4", 1-1/4", 1-1/2" and 2". The System is operated at 10 psig and the MAOP is 40 psig. There are approximately 63 customers in New Middletown.

General Information - Description of System (continued)

i. The Corydon System consists of steel and polyethylene pipe in sizes of ¾", 1 ¼", 1 ½", 2", 3", 4" and 6". The Corydon City Gate Station is approximately 1 mile east of Corydon on Country Club Road. Operating pressures vary from 20 psig to 40 psig and the MAOP is 40 psig. There are approximately 2,366 customers in Corydon.

j. The North Harrison System serves the towns of Ramsey and New Salisbury and consists of Polyethylene pipe in sizes of ¾", 1 ¼", 2", 4" and 6" HD-DR11. The North Harrison Regulator station is near Corydon-Ramsey Rd northwest of Corydon. Operating pressures on the 6" HD varies from 60 to 100 psig and the MAOP is 100 psig. Distribution pressures varies from 5 psig to 60 psig and the MOAP of this section is 60 psig. There are approximately 112 customers currently served.

k. In addition to these 3 towns, the Company serves approximately 317 rural customers located along the Intercity Line.

l. The standard delivery pressure on the outlet side of a typical customer's meter is 7 inch water column or 2 psig.

3. Organization for Inspection, Operations and Maintenance

All operations and maintenance of the system will be under the supervision of the Operating Superintendent who will report directly to the President of the Company or his delegate.

4. Accidents

All accidents should be reported by the Operating Superintendent to the President of the Company or his delegate.

5. Street or Highway Openings

a. Where applicable, proper permits shall be obtained prior to start of construction or other excavation.

b. Liaison with city authorities shall be maintained to prevent any undue inconvenience because of a street opening or other construction.

c. All repairs to street will be made in a manner that is satisfactory to the local city maintenance supervisor.

6. Underground Plant Protection

   a. The Company subscribes to both Indiana and Kentucky Underground Plant Protection organizations. Prior to construction or digging, the respective State protection service is called requesting locates to be performed by participating Utilities. If the Company is constructing or digging in an area where the utility, person or property owner does not subscribe to the respective protection service, the Company will contact all necessary parties and/or company(s), in advance prior to construction or digging.

   b. When the Company receives requests for locates from utilities, persons and/or property owners, the locate is given to the Superintendent for action. It is the Superintendent's responsibility to arrange for the locate to be performed and to keep appropriate records indicating the Companies actions.

Operations – General Safety Practices

1. The Safety and well being of the Public must always be given prime consideration.

2. Indiana Utilities Corporation shall take steps to minimize the danger of accidental ignition of natural gas in any structure or area where the presence of natural gas constitutes a hazard of fire or explosion.

3. Be sure that necessary tools are available and that they are in proper working condition.

4. Hard hats shall be worn at all times when outside of trucks and on any construction and/or job site.

5. Work Area Protection and Barricading

   There are certain hazards connected with working traffic that cannot be entirely eliminated or controlled. In these situations it is essential that the work area be properly protected for the safety of the employees, motorists and pedestrians while creating a minimum of traffic obstruction. Refer to the state's Manual Uniform Traffic Control Devices for traffic control regulations regarding the placement of barricades.

   Plan the work area protection with the following objectives in mind:

   a. To provide maximum protection for the employees in the street and those in the excavation.

d. For improved safety, at least two men shall make all inspections on work performed in regulator and relief valve stations.
e. Any hazardous conditions noted in or around any regulator and relief valve station shall be rectified as soon as reasonably possible and documented. If correction is not possible, document situation and report to the superintendent for corrective action.

8. Company owned vehicles

    a. During operating hours employees are allowed to utilize company owned vehicles to perform company related activities and employees are allowed to drive these vehicles home.

    b. During after hours the employee on call shall utilize company owned vehicles at all times during their on-call duty. If the employee is performing personal activities they are to utilize the company owned vehicle, this is in the event of an emergency the employee can respond immediately.

9. Adequate precautions shall be taken when excavating trenches to protect personnel from the hazards of unsafe accumulations of vapor or natural gas, and making available when needed at the excavation site proper emergency rescue equipment, including breathing apparatus and a rescue harness and line.

Cathodic Protection Standards. Testing Procedures and Records

General: Reference: CFR 49, Part 192, Subpart I

1. On all steel coated mains that are electrically isolated from other types of mains, a negative (Cathodic) voltage of at least -0.85 as measured between the structure or line surface and a saturated copper - copper sulfate reference electrode contacting the electrolyte or (earth). Determination of this voltage is to be made with the protective current applied. Proper operation of a rectifier and adequate placement of anodes on the pipe shall be used to obtain the -0.85 voltage. Each individual situation shall dictate the procedure.

2. Each continuous electrically bonded coated cathodically protected pipeline section shall be assigned a test station.

3. Testing equipment will be maintained by the manufacture specifications. A test will be performed to ensure correctness of the readings.

4. Test Leads:
   a. Each test lead wire must be connected to the pipeline so as to remain mechanically secure and electrically conductive.
   b. Each test lead wire must be attached to the pipeline so as to minimize stress concentration on the pipe.
   c. Each bare test lead wire and bared metallic area at point of connection to the pipeline must be coated with an electrical insulated material compatible with the pipe coating and the insulation on the wire.

Frequency of Cathodic Tests:

1. All Cathodic test stations and casings shall be tested at least once each year when practical, testing frequency shall occur annually and to not exceed 15 months apart from the last test date. Test leads will be checked for proper connections.

2. The rectifier shall be tested for proper operation bimonthly/six times per year, when practical, testing frequency shall not exceed 2 ½ months apart from the last test date.

3. Any time a steel service or distribution line is exposed for any reason, a visual inspection shall be performed. It shall also be inspected for evidence of corrosion, for the condition of the coating and any adjacent facilities which might produce an interference short. If evidence of corrosion is present a pipe to soil test shall be performed. Also, if corrosion is present an investigation shall be conducted to determine the extent of corrosion on the pipeline.

Points to Remember:

1. If different metals must be connected underground, install insulators between them. Examples:

    - Insulate between new steel and old steel
    - Insulate between steel and copper

2. Install all necessary insulators. Do so as carefully as possible to avoid failures.

3. Make good bonds when called upon to do so.

4. Wet and tamp anodes - make good connections when making connections.

5. Do not allow any foreign structures to come in contact with piping.

6. Give exact locations when installing a check point.

7. Use precaution not damage the pipe coating.

8. Recoat all damaged coating as well as other bare metal areas

Procedure for Up-rating of System

Reference: CFR 49, Part 192, Subpart K

General: This procedure will be followed when up-rating the maximum allowable operating pressure in: 1) a segment of distribution system operated at 1 - 60 psig and less than 20% SMYS to above 60 psig and less than 20% SMYS; 2) an intercity line operated at 61 - 366 psig and less than 20% SMYS to less than or equal to 440 psig and less than 20% SMYS.

1. When up-rating the MAOP in a segment of distribution system operated at 1 - 60 psig and less than 20% SMYS to above 60 psig and less than 20% SMYS the following steps will be employed:

    a. All available records will be checked for;

        1) the design of the system including installation date, type of pipe, fittings used and the original test pressure.

        2) number and size of services off the main

        3) past maintenance records including results of any previous leakage surveys

        4) the operating history

b. Make a leakage survey of all involved pipelines including company owned services and customer owned services, and have the proper parties repair any leaks that are found.

c. Make any repairs, replacements or alterations that are necessary for safe operation of the main at the increased pressure.

d. Upgrade or add necessary service regulator or regulators on each service line to satisfy the increased pressure.

e. Isolate the segment or segments of pipeline in which the pressure is to be increased from any adjacent segment that will continue to be operated at the lower pressure.

f. After completing the preceding steps, the gas pressure will be increased in increments that are equal to 10 psig or 25% of the total pressure increase, whichever produces the fewer number of increments. There must be at least two approximately equal incremental increases when the total pressure is small. At the end of each incremental increase the pressure must be held constant while the entire segment of pipeline that is affected if checked for leaks.

g. During the pressure increase, all service regulators will be tested to see if they are functioning properly.

h. All changes in pressure will be corrected on all current maps and other operating records.

i. A record will be retained in the company's files of each up-rating including all work performed and pressure tests conducted. These records shall be retained as long as the facilities involved remain in service.

2. When up-rating the MAOP in a segment of intercity line operated at 61 - 366 psig and less than 20% SMYS to less than or equal to 440 psig and less than 20% SMYS, the following steps will be employed:

   a. All available records will be checked for;

      1) the design of the system including installation date, type of pipe, fittings used and the original test pressure.
      2) number and size of distribution mains, farm taps and services off the intercity line
      3) past maintenance records including results of any previous leakage surveys
      4) the operating history

b. Make a leakage survey of all involved pipelines including company owned mains, farm taps and services, and customer owned services that have taps directly on the intercity line, and have the proper parties repair any leaks that are found.

c. Make any repairs, replacements or alterations that are necessary for safe operation of the main at the increased pressure.

d. Upgrade or add necessary service regulator or regulators on each service line to satisfy the increased pressure.

e. Isolate the segment or segments of pipeline in which the pressure is to be increased from any adjacent segment that will continue to be operated at the lower pressure.

f. After completing the preceding steps, the gas pressure will be increased in increments that are equal to 10 psig or 25% of the total pressure increase, whichever produces the fewer number of increments. There must be at least two approximately equal incremental increases when the total pressure is small. At the end of each incremental increase the pressure must be held constant while the entire segment of pipeline that is affected is checked for leaks.

g. During the pressure increase, all affected distribution system, farm tap regulators and service regulators will be tested to see if they are functioning properly.

h. All changes in pressure will be corrected on all current maps and other operating records.

i. A record will be retained in the company's files of each up-rating including all work performed and pressure tests conducted. These records shall be retained as long as the facilities involved remain in service.

Procedure for the Abandonment or Inactivation of Facilities

Reference: CFR 49, Part 192.727 — Subpart M

General: The following procedure shall be employed when abandoning or inactivation of any intercity, main or service line within the system of the Company.

1. Office records should be checked and any necessary field checks should be made to insure the segment of intercity, mains or service scheduled for abandonment are disconnected from all sources and supplies of gas (such as other pipelines, mains, crossover piping, meter stations, customer piping, control lines and other appurtenances).

2. Abandonment shall not be completed until it has been determined that the volume of natural gas contained within the abandoned segment is at zero percent gas and possess no potential hazard.

3. Intercity, mains or services containing natural gas must be properly purged using air, inert gas or water. If air is used as the purging agent, precautions should be taken to insure that no liquid hydrocarbons are present.

4. One of the following methods of sealing intercity, main or service line openings shall be used:
   a. normal end closures (such as welded or screw caps, screwed plugs, blind flanges, mechanical join caps and plugs)
   b. welding steel plate to pipe ends

5. All valves left in the abandoned segment shall be lubricated and closed. If the segment is long and there are few line valves, consideration should be given to plugging the segment at intervals.

6. All above-grade valves, risers, vaults and valve box covers shall be removed. Vault and valve box voids shall be filled with suitable compacted backfill material.

7. Reports will be filed upon abandoning underwater facilities crossing navigable waterways and all other abandoned facilities.

Records: See Exhibit T

Procedures for Welding of Steel Pipe

Reference: CFR 49, Part 192 - Subpart E

General: All welding and welder qualifications of steel pipe in the Company's gas system must be performed in accordance with Section 3 of API Standard 1104 – 20th edition. All welding of steel pipe in the system will be by either oxy-acetylene welding or electric arc-welding. All welders shall be subject to an initial qualifications test and/or an annual re-qualification test for each type of welding. All welding performed by a contractor shall be visually inspected by a qualified company employee during all welding of joined material. The surfaces to be welded shall be smooth, uniform, and free from laminations, tears, scale, slag, grease, paint, and other deleterious material that might adversely affect the welding. The joint design and spacing between abutting ends shall be in accordance with the procedure specification used.

1. Procedure for Welding
   a. The base material shall conform to the specifications for API Standard 5L pipe and approved ASTM material.

   b. For Oxy-acetylene, filler material shall be Airco No. 1 Alloy steel rod (or equal) with an ultimate tensile strength of 62,000 psi minimum, ASW specification A5.2-46T, ASTM A251-46T - Classification GA-60.

   c. The pipe ends to be joined by welding shall be mill beveled or prepared by machining or machine oxygen cutting. The beveled ends shall be reasonable smooth and uniform, and shall be cleaned of all oil or grease and excessive amounts of scale or rust.

   d. Welding shall not be done when the quality of the completed weld would be impaired by the prevailing weather conditions. The Superintendent shall decide whether weather conditions are suitable for welding. Preheating is not required above 32 degrees F. air temperature. If welding is done below 32 degrees F. air temperature, the pipe joint shall be heated to 100 degrees F. before welding is started.

   e. The alignment of the abutting ends shall minimize the offset between surfaces. For pipe ends of the same nominal wall thickness, the offset shall not exceed 1/16 inch. If a larger offset is caused by dimensional variations, it shall be equally distributed around the circumference of the pipe.

   f. When using external lineup clamps, they may be removed after when the completed part of the bead shall be in approximately equal segments spaces approximately equally around the circumference of the joint.

g. Filler and finish beads

1. All oxy-acetylene welds shall be made with not less than two beads with each applied completely around the pipe and thoroughly cleaned before the next weld is started. Beads shall be approximately 1/8" in thickness.

2. All electric arc-welding welds for pipe 4 inches and less shall be made with not less than three beads, and for six and eight inch pipe the number of beads shall be not less than four beads, with each applied completely around the pipe and thoroughly cleaned before the next weld is started.

h. Any weld that is unacceptable under 192.241 (c) must be removed or repaired. A weld must be removed if it has a crack that is more than 8 percent of the weld length. Each weld that is repaired must have the defect removed down to sound metal and the segment to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the segment of the weld that was repaired must be inspected to ensure its acceptability.

2. Welder qualification - Before any welding is performed, welders shall be qualified according to the applicable requirements in API Standard 1104. It is the intent of this standard that a welder who satisfactorily completes the procedure qualification test is a qualified welder. Welders shall be subject to three types of welding qualification tests;
   1. an initial qualification test
   2. production weld test
   3. an annual re-qualification test.

3. Annual welder re-qualification test – Qualified welders must be re-qualified once each year on or before the anniversary date of their initial qualification test or their previous re-qualification test.

4. Limitation on Welders – A welder who makes welded service line connections must pass an oxy-acetylene test or an electric-arc test which ever process is used. A welder who has not performed a particular welding process within the preceding six months must be re-qualified prior to performing that process. A welder may not weld unless within the preceding six calendar months, had one production weld destructively or non-destructive tested and found acceptable.

4. Records – For pipelines to be operated at a pressure that produces a hoop stress of 20 percent or more, report as in daily employee diaries will record the number of welds, location and process used will be maintained for all welds made for the life of the pipeline. A file shall be maintained documenting each qualified welder and the processes for which they are qualified. This file must indicate the current qualification status of the welder, the dates and results of each qualification test, and the procedure(s) the welder used during qualification.

Procedure for Fusion of Polyethylene Pipe

General: Joining procedures used for polyethylene pipe shall be in accordance with applicable Pipe's Fusion Qualification Procedures, applicable Manufactures Procedures and in compliance with regulations of the Department of Transportation CFR 49, Part 192. All polyethylene pipe used shall meet approved ASTM material guidelines, including but not limited to wall thickness and UV exposure.

Qualification:

1. For each socket, saddle, butt joint and electro fusion a specimen joint shall be made according to the approved joint procedures as outlined above.

2. The specimen joints shall be visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure.

3. Each specimen shall be cut into 3 longitudinal straps, each of which is:

   a. Visually examined and found not to contain voids or discontinuities on the cut surface of the joint area

   b. Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area

   c. A person must be re-qualified annually under an applicable procedure.

      Note: All fusion joints in a pipeline shall be inspected by the person(s) who make the joints and who also is qualified by the appropriate training, experience, and qualification procedures as set forth above.

5. Qualification Program

6. Excess Flow Valves shall be installed on all new residential and replacement services at the company expense.

Customer Meters — Testing. Inspection & Maintenance

Reference: IURC Rule 1. Standards of Service

1. All meters and BPI's shall be tested according to the following schedule:

   a. All of the systems positive displacement meters, with a rated capacity up to and including 500 cubic feet per hour, shall be sample tested per Rule # 34613 of the Indiana Utility Regulatory Commission.
   b. All positive displacement meters, with a rated capacity above 500 cubic feet per hour up to and including 1,500 cubic feet shall be tested in accordance with the same rule mentioned above.
   c. All positive displacement meters above 1,500 cubic feet per hour shall be tested in accordance with the same rule mentioned above.
   d. All Base Pressure Indices (BPI) shall be checked for accuracy at intervals not exceeding one (1) year and if found to be out of limits, shall be adjusted to as near zero (0) error as practicable.

2. All meters removed from service for any reason, shall be tested for accuracy as soon as practical after removal.

3. A copy of the meter test and repair record card shall be maintained for the life of the meter. See Exhibit G

Operations: General Inspection Line. Connect and Line Disconnect Procedures

General: When a visual system check is conducted on a customers premise as indicated in the procedures below — the item(s) so checked will be in compliance with the American Standard Installation of Gas Appliances and Gas Piping. A visual system check will be performed with an ordinary standard of care. Under no circumstance should a serviceman attempt to repair or troubleshoot problems with customer premise equipment that the serviceman has no actual working knowledge of that specific equipment. If the serviceman identifies a potential hazardous condition within a customer premise the meter shall not be turned on and the meter shall be Red Tagged. When a service call is performed, a service ticket shall be completed and signed by the company representative performing the work, according to the following:

1. Gas Left On, Line Disconnect — Line Connect
   a. If necessary to enter the premises, a visual system check shall be made and service ticket completed.
   b. Typically it is not necessary to enter the premises, read meter and fill out applicable section of the service ticket form.

2. Gas Turned Off — Line Disconnect
   a. Meter shall be read and meter stop turned off and sealed to prevent unauthorized turning on of service.

3. Gas Service Turned On - Before gas is introduced into a new or existing piping system that has been shut off, a visual system check shall be conducted to determine that there are no open fittings or ends and that all valves at outlets on equipment are closed and all unused valves at outlets are closed and plugged or capped.

   a. Only authorized personnel shall turn gas on at the meter lockwing.
   b. When possible the installer/customer shall be present at the time gas is turned on to witness and verify that all piping has been tested and that all equipment has been installed and operating in accordance with all applicable codes. Be sure to document who was present from the installation contractor.
   c. Immediately after turning on the gas, a company employee shall ascertain that no gas is escaping by marking and observing the meter test hand (clocking the meter), the test hand shall be clocked for a minimum of 10 minutes for all meters with a ½ foot dial and for all larger meters, the meter shall be clocked for a minimum of 20 minutes.
   d. If a leak is indicated, the gas meter shall be turned off until the necessary repairs are made.
   e. The installer shall then turn on the gas equipment after the piping system has been tested and determined to be leak free and purged by a company employee. If the installer is not present then the company employee shall turn on the gas equipment and cycle appliances to see that they are operating properly. While inside the premise, obtain a CO reading and Sensit all reasonably accessible exposed piping and/or fittings **or** obtain a CGI reading.
   f. Check meter for operable condition after turn on. For new meter sets, soap and/or Sensit/CGI all fittings, regulator and meter for leaks.
   g. Although company policy requires access on every type of turn on, we cannot demand entry if someone refuses to let us enter their home. However, we will turn on the meter provided (a) the customer indicates that they, or someone else will light the equipment, and (b) the meter test (clocking the meter) verifies no leakage. The office customer service representative shall indicate on the service ticket what the customers' intentions are. A waiver form must be completed and signed by the customer.
   g. Complete the service ticket, checklist and accurately document all information.

Use of Red Tags on Appliances

Purpose: To describe actions to be taken when a gas related hazard is found on any customer's piping, venting or appliances, and to provide a record that a Company representative has brought an unsafe condition to the customer's attention and has turned off the gas supply to the effected appliance(s) judged to be hazardous.

General: In the event an unsafe condition is discovered, the employee will turn off the gas supply to the effected appliance, fill out the RED TAG information and attach it to the valve or the appliance which has been turned off. The employee shall obtain the customers' signature, if present, and inform the customer why the appliance was turned off and what must be done to correct the unsafe condition. The customer shall be warned not to use the appliance until a qualified repairman has made the required repairs. It shall be the customer's sole responsibility to arrange for such repairs to be made. If the company was unable to obtain the customers' signature a letter describing our findings will be sent to the customer within 3 working days from the date of our inspection.

The following are examples of unsafe conditions:

1. Gas leak in the appliance that cannot be readily repaired by the employee
2. A connector not AGA approved
3. Defective or plugged vent pipe or chimney
4. Not vented, improperly vented, or vented into a chimney of inadequate size or height
5. Improper combustion, which cannot be readily corrected by minor cleaning or adjustment
6. Insufficient make-up air to support combustion and for proper ventilation
7. Inoperative safety pilots or no safety pilot, when necessary
8. Inoperative, or absence of required safety devices; such as high limit controls, pressure and temperature relief valve, low water cut off, etc.
9. Defective or improper wiring which might cause an unsafe condition
10. Burned out, cracked or clogged heat exchangers, which permit products of combustion to escape from the combustion chamber or flue system
11. Improperly installed appliance such as insufficient clearance form combustible material, improperly located appliance shut—off valve, return air supply taken from the same area as combustion and ventilation air, or appliances installed in a small confined space such as a bathroom or bedroom with inadequate combustion air
13. When an unsafe level of carbon monoxide has been detected
14. Or any other safety related condition according to local ordinances and/or the National Fuel Gas Codes, which ever is more restrictive

Records: Record findings and action taken by employee on the Red Tag document and the service ticket. If carbon monoxide was detected, notation shall be made of the CO reading, any relative circumstances, and specific action taken by employee.

RED TAG CUSTOMER LETTER

NAME OF CUSTOMER
ADDRESS OF CUSTOMER
TOWN ZIP

DEAR CUSTOMER:

On " date - year " an Indiana Utilities Corp. service representative at your property at address — town discovered this unsafe condition.

" describe unsafe condition "

Our service representative disconnected your equipment that was determined unsafe in the interest of safety and to comply with State regulations.

The Indiana Utility Regulatory Commission Rules, Regulations and Standards of Service for Gas Public Utilities say that gas service can be shut off without a customer's request "if a condition dangerous or hazardous to life, physical safety or property exists."

To correct this unsafe condition, you need to contact a professional contractor. After you correct the unsafe condition, please call our office so that we may re-inspect your equipment. Once we make sure that the unsafe condition no longer exists, we will remove the RED TAG and restore gas service.

Sincerely

Frank Czeschin
President

Intercity and Distribution Lines – Surveys, Patrolling, Continued Surveillance and Records

Reference: CFR 49, Part 192, Subpart M, Sections 192.721 & .723 also, Subpart L, Section 192.613

General: All leakage surveys shall be conducted with a flame ionization detection equipment and/or bar test survey utilizing a combustible gas indicator. Any leaks located by these surveys shall be repaired immediately and leak report forms shall be completed on any leaks discovered during the surveys. During these surveys, 1) line markers shall inspected for condition and labels shall be checked for repair or replacement 2) a continued surveillance shall be conducted of the company's facilities.

1. Locations where a distribution and/or Intercity main may be subject to abnormal physical movement shall be patrolled at intervals not exceeding six (6) months. Semi-Annual surveys shall be made of the following areas:

    a. bridge crossings
    b. water crossings (other than the Ohio River)
    c. various railroad crossings
    d. any areas that have been recorded or reported on previous surveys until the condition has been corrected

Records: The following records shall be completed during the appropriate survey: See Exhibits M

1. System Patrolling Form DSP-10

2. A leakage survey outside the business district system shall be made as frequently as necessary, but at intervals not exceeding 5 years and at intervals not exceeding 15 months.

    Records: A Distribution Area Survey Form DS-10 shall be completed during this survey. See Exhibit N

3. A leakage survey shall be made in the defined business district(s) on an annual basis and at intervals not exceeding 15 months. A business district survey consists of testing available opening for finding gas leaks such as; cracks in the pavement, manholes, catch basins, vaults, and other utility openings located in alleys and streets located adjacent to gas mains and service lines.

    Records: A Business District Leak Survey Form BDLS-95 shall be completed during this survey. See Exhibit O

Intercity and Distribution Lines — Surveys.
Patrolling, Continued Surveillance and Records (continued)

4. A leakage survey shall be made in all Public and High Occupancy Buildings on an annual basis and at intervals not exceeding 15 months. Leak tests shall be made at the entrance of the underground utility lines to the applicable buildings and of the exposed gas piping from the gas service to the meter outlet. Also the atmosphere shall be tested on all available street openings within a reasonable distance of the building, and a bar hole test shall be made over gas lines close to the building.

   Records: A Public Buildings Leak Survey Form PB-10 shall be completed during this survey. See Exhibit P

5. A leakage survey shall be made on all the Intercity line on an annual basis and at intervals not exceeding 15 months. Particular attention shall be given to the vegetation for leak detection and other surface conditions over the intercity Line, such as; washed out areas, construction and excavation.

   Records: The following forms shall be completed at the time each survey is completed: See Exhibits Q and S

   1. Intercity Line Leak Survey Form ILL-95
   2. Continued Surveillance Form CS—95

6. Consideration shall be given if a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, at that time a program shall be initiated to re-condition or phase out the segment involved, or, if the segment cannot be re-conditioned or phased out, the MAOP shall be reduced permanently or until the segment of pipeline is repaired.

Intercity, Mains & Services – Leak Repair, Testing and Records

Reference: CFR 49, Part 192, Sections 192.309, 311 and 703

General: To outline the methods of leak repair and testing of repairs to mains and services, and to record the cause and method of repair.

Procedure: As set forth in the leakage surveys of the Indiana Utilities Corporation System, leaks located by those surveys shall be repaired immediately. Furthermore each segment of pipe that becomes unsafe must be replaced, repaired, or removed from service. Any hazardous leaks must be repaired immediately.

Intercity and Distribution Lines — Surveys.
Patrolling, Continued Surveillance and Records (continued)

1. Intercity Line

   a. If feasible, the segment of intercity line must be taken out of service and repaired or replaced with pipe of similar or greater design strength.

   b. If the leak is due to a corrosion pit, the repair may be made by installing a properly designed bolt-on leak clamp.

   c. Testing in accordance with CFR 49, Part 192, Section 192.507. All intercity lines shall be tested at 1 ½ times it rated capacity. Each segment of pipeline put into service will be purged of air to 95 percent gas.

   d. Each tap made on the pipeline shall be made by a qualified person(s).

   e. Any Intercity pipeline containing natural gas must be properly purged to zero percent gas using air, inert gas or water. If air is used as the purging agent, precautions should be taken to insure that no liquid hydrocarbons are present. All purging of pipelines shall be performed according to 192.629.

2. Distribution Mains and Service Lines

   a. If feasible, the segment of steel or plastic line must be taken out of service and repaired or replaced with pipe of similar or greater design strength.

   b. If not feasible to take the steel pipeline out of service, repairs shall be made by the installation of a full encirclement welded split sleeve.

   c. If the leak is due to a corrosion pit, the repair may be made by installing a properly designed bolt-on leak clamp.

   d. Testing in accordance with CFR 49, Part 192, Section 192.507, 509, 511 and 513. All distribution and service lines shall be tested at 90 psig or 1.5 times it rated capacity, which ever is greater.

   e. Each tap made on the pipeline shall be made by a qualified person(s).

   f. Any Distribution mains or services containing natural gas must be properly purged to zero percent gas using air, inert gas or water. If air is used as the purging agent, precautions should be taken to insure that no liquid hydrocarbons are present. All purging of pipelines shall be performed according to 192.629

Records: The following forms shall be completed on any leak repairs and testing. See Exhibits A, B, and C

1. Gas leakage & repair data
2. Completion of the Leak Report Form (started upon discovery of leak).
3. Test Pressure Record

Odorization Equipment and Odorant Levels

Reference: CFR 49, Part 192, Section 192.625

General: Odorant shall be added to the gas at such a rate that it is readily detectable at concentrations of on fifth (1/5) of the lower explosive limit. Odorized gas in Class 3 locations must be readily detectable by person(s) with normal sense of smell at 1/5 of the LEL.

Procedure:

1. Odorization equipment and odorant levels shall be checked monthly using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable to determine:

   a. that odorization equipment is functioning properly

   b. maintaining a uniform level of odorant in the gas

Records: Monthly inspections shall be documented in the daily employee's diary. Annually see exhibit F.

2. An odorant level record shall be filed on a monthly basis to confirm odorant levels as determined by tests, at a minimum of four (4) different locations in the system.

Procedure for Valve Inspection and Maintenance

Reference: CFR 49, Part 192, Section 192.747

General: Each Key Intercity and Key Distribution line valve and regulator station valve shall be checked and serviced for operation annually or within 15 months of the last inspection.

Procedure:

1. Key Valves shall be lubricated when there is excessive restriction of operation or leakage around the stem.

2. The valve box shall be checked for proper alignment and cleared of any debris or obstruction(s) which may interfere with or delay the operation of the valve.

3. An inspection shall be made of all distribution service line curb stop valve boxes one year after installation where the alignment may be subject to movement and thereafter at five (5) year intervals.

Records: See Exhibit R

All inspections shall be recorded on the Valve Inspection and Maintenance form. This record shall be kept for the life of the valve.

Procedure for Maintenance of Pressure Limiting and Pressure Regulating Stations

Reference: CFR 49, Part 192, Sections 192.739

Procedure: Regulator Stations

1. Each regulator station shall be inspected annually or within 15 months from the last inspection.

2. Each regulator shall be inspected to insure it is in good working order, controls at its set pressure, operates or strokes smoothly and shuts off within expected limits. Also, inspection shall be made that the regulator was properly installed and protected form dirt, liquids or other conditions that might prevent proper operation.

3. If acceptable operation is not obtained, determine the cause of the malfunction and adjust, repair or replace as needed.

4. After any repairs, the regulator shall be tested as stated in no. 2 above.

Records: A record of any adjustment, repair, or changes shall be noted on each individual regulator inspection sheet. Noting pressures before and after adjustment. See Exhibit D

Relief Valves – Testing and Inspection

Reference: CFR 49, Part 192, Section 192.743

General: The relief shall be designed and installed so that it can be readily operated to determine if the valve is free, can be tested to determine the pressure at which it will operate, and can be tested for leakage.

All regulator station located in the system shall be provided with a sufficient number of relief valves or other protective devices to insure that the complete failure of one or more regulator stations shall not impose pressure on any part of the system beyond those which it is designed for or protected against.

The relief vents of all pressure relief devices shall be located where the gas can be discharged into the atmosphere without undue hazard. The relief vents shall be protected with rain caps to prevent the entry of water.

Procedure:

1. Special attention is to be given to make sure the stop valve for the relief is not left in a closed position.

2. Relief Valves

   a. In pipelines other than low pressure distribution system and when the maximum allowable operating pressure is 60 psi or more, the pressure may not exceed the maximum allowable operating pressure plus 10 percent or the pressure that produces a hoop stress of 75 percent of SMYS, whichever is lower.

   b. Relief valves are to be tested annually or within 15 months of last inspection. Also, inspection shall be made that the regulator was properly installed and protected form dirt, liquids or other conditions that might prevent proper operation.

3. Farm tap relief devices are to be replaced at the time of the meter rotation and the one replaced shall be tested and repaired if required.

4. Relief valves on all Commercial and Industrial meter sets are to be tested at the time of meter testing.

Records: Each relief valve will be tagged, stating test data and relief pressure. An individual record on each relief valve shall be kept showing results of all tests. See Exhibit E

Map Updating

General: This procedure will be preformed when new mains or services are added to the intercity and Distribution System. A review shall be conducted annually to determine if any changes are required. Posting all new mains and services shall be conducted as time permits, however are intent is to post new entries annually.

1. Mains shall be posted to the maps on an as built bases. Documentation of the type and size of the mains installed, also, any other material such as valves, regulators, pipeline markers or any other relevant material shall be posted at this time.
2. Services shall be posted to the maps on an as built bases. On the service ticket a drawing of the service line shall be made on the back of the service ticket, so that accurate posting can be made. Documentation of type and size of service shall be made, also, the location and model style of the excess flow valve shall be posted.

Directional Boring

General: The methods and procedures outlined in this section should be used as a guide for whenever gas facilities are being installed by directional boring or when other underground utilities are being installed with directional boring and the work is in the vicinity of gas pipelines.

Directional boring is a technique for crossing major rivers, roadways, and other construction obstacles. The benefits derived from directional boring include reduce environmental impact, minimal interference to surface traffic during construction, and pipeline protection in high surface-traffic areas after construction. Additional benefits are also realized in applications where surface and subsurface restoration costs are high.

When directional boring, all literature and manuals for the machine used shall be followed and will take precedence over any part of this manual section.

Damage Prevention when Boring: When installing natural gas facilities by directional boring, precautions include the following.

a. Using the IUPPS one-call notification system to have facilities within the immediate area located and marked; and, directly contacting known, non-participating utilities for facility location.
b. Ensure that known facilities are located and marked prior to commencing work.
c. Exposing facilities within the immediate work area by hand excavation before starting a bore if the depths of the facilities are not established by other means.
d. Considering sewer systems within the area. Sewer systems are especially vulnerable to damage from boring operations for the following reasons:
    1. Lines are often non-metallic, making them difficult to locate.
    2. Clean-outs or other indications of laterals may be hidden.
    3. Damage may not be readily apparent when a sewer line is damaged by boring.
    4. Notifying residential and business neighbors in the area of impending work.
    5. Checking local regulations for the minimum separation distances between the new gas line and other facilities.
    6. Making arrangements with local authorities for traffic control, as necessary.
    7. Ensuring adequate clearance of overhead facilities.

Protecting Existing Facilities: When excavations near natural gas facilities will be conducted with directional boring (either by the operator or by a third party), the operator should consider the following:

a. When it is anticipated that the bore will cross or come near the edge of an underground facility, expose that facility to determine its precise location to ensure adequate separation between the existing and proposed facilities.
b. When the bore will run parallel to an existing facility, expose that facility or use locating technology to verify that adequate clearance is maintained between the bore and the existing facilities during boring operations.
c. Where potholes are used for visual inspection, they should be placed at intervals that will ensure that clearance is maintained during boring operations. *Factors to consider for potholes intervals* include the following:
    1. Proximity of proposed bore path to the pipeline facilities.
    2. Type of facility (existing and proposed).
    3. Type of soil.
    4. Size and controllability of the bore.

d. Locating the existing facility and the newly installed facility to ensure that the installation is in the intended location.
e. Conducting a leakage survey over pipelines that could have been affected by the trenchless installation.

Essential planning considerations are as follows:
a. Develop an accurate cross-section profile of the proposed site to determine the lowest elevation for the pipeline to be installed. The profile should extend at least 300 feet beyond the proposed entry and exit points.
b. Determine the type of sub-soil to be encountered in the installation. If there is insufficient soil information available for the site, soil borings or seismic studies are recommended.

Alignment considerations: an important step in planning the directional boring operation is to use the information form the previous step, including the cross-sectional profile and the geo-technical information, to determine the optimum pipeline alignment and placement. An optimum location provides the minimum required pipeline cover in an ideal installation medium. A straight-line (horizontal) and smooth curvature (vertical) placement is important.

Limits and obstructions: Obstructions that should be considered include the following:
a. Magnetic influences within 75 feet of the proposed bore path.
b. Buried or abandoned structures.
c. Utility infrastructure.
d. Underground or elevated pipelines.
e. Overhead obstructions at the bore site or exist areas.
f. Geo-technical characteristics.

Corrosion considerations: The following are recommended coating systems for directional bored steel pipeline crossings.
a. Abrasion barrier – Epoxy based polymer concrete, which is used in rocky or highly abrasive soils.
b. Pipe coating – Mill applied fusion bond epoxy at 14-22 mils.
c. Joint coating – a minimum dry film thickness of 20-22 mils of fusion bond epoxy.

Instrumentation:
a. A surface monitoring system may be used to track the location of the down-hole probe during the pilot hole drilling. The installer should ensure that such monitoring controls the drilling path accuracy and allows for necessary corrections. The space between monitoring readings is determined by the need for accuracy in placement of the pipeline.
b. Some form of gauging should be used to monitor the pulling force.

Construction inspection:

a. The installer's should ensure that the pipe pull section is adequately supported during pullback.
b. The pipe coating should be inspected prior to entering the reamed hole.
c. The proper containment and disposal of drilling mud or fluids should be verified to ensure compliance with applicable requirements.
d. Other considerations are as follows:
    1. Pipe handling during stringing, welding, and pullback operations.
    2. Pipeline testing process.
    3. Proper joint coating application.
    4. Pipe coating repairs.
    5. As-built profile for comparison with preliminary profile.
    6. Construction site security.

Damage caused by Directional Boring: If damage is done to existing utilities, the following shall be done.

a. The situation shall be stabilized to prevent additional safety hazards and to prevent more damages to utilities. (Note: safety hazards can include electrocution, explosion, and contamination depending on the type and size of pipeline damages.)
b. The affected utility shall be notified of the damage created, including preliminary observations by the boring operator of the location and the nature of the damage.
c. The applicable one call center shall be notified of the damage. Information needed by the one call center includes dig number for the area, type of facility, the affected utility, and the location of the damage at the dig site.
d. Boring in the affected area shall be delayed until the hazard is removed and additional locating is completed to prevent future damage. This additional locating can include hand digging and additional line locates. Once the area is determined to be safe and the true location of the damaged utility is located, boring can resume.

MAOP Procedures

General: The MAOP of the mains and services lines in the distribution system were determined by previous test records and by utilizing the highest actual operating pressure the system were subject to during the 5 years preceding July 1, 1970 and by pressures the operator and the Superintendent determine to be safe considering the materials, joining methods, leak and cathodic protection histories of the pipe segments. New mains and service lines are tested to a minimum of 1.5 times MAOP and to a minimum of 90 psig.

Class Locations: Indiana Utilities Corporation's gas system is located in Class 1, 2 and 3 locations. It is not anticipated that the Company will operate in any Class 4 locations: however, class location will be reviewed during the annual pipeline patrol of the distribution system. If at that time a class location change is needed it will be made along with any changes needed for MAOP.

Class 1 Location: A location that has 10 or less buildings intended for human occupancy with 220 yards of pipeline for a distance of 1 mile.

Class 2 Location: A location that has 10 but less than 46 buildings intended for human occupancy with 220 yards of pipeline for a distance of 1 mile.

Class 3 Location: A location that has 46 of more buildings intended for human occupancy with 220 yards of pipeline for a distance of 1 mile or where schools, playgrounds, parks, theaters or public buildings are located that may be occupied by 20 or more persons at least 5 days a week in a 12 month period.

Class 4 Location: A location where the building is present with 4 or more stories above ground.

Pressure Testing: All mains and service line will be pressures tested as Stated in the General section above. Mains above 100 psig shall be tested for a minimum of 12 hours, mains with a MAOP of 60 psig or less shall be tested for a minimum of 1 hour and service lines with a MAOP of 60 psig or less shall be tested for a minimum of 15 minutes. If leaks are discovered they shall be repaired and the pressure test shall be done again. Final tie-in connections are tested with a soap test at existing line pressure.

All steel mains and service lines installed along the high pressure System shall be tested, with water or inert gas as the test medium, at a Minimum pressure of 1.5 times the MAOP of that main or service line. Again, final tie-ins are tested with a soap test at existing line pressure.

All temporarily abandoned mains and service lines shall be tested under the same condition as is required for new mains and services. When portion of service lines are renewed or replaced, the entire line must be tested.

During pipeline startup and shutdown care will be given to assure that MAOP is not exceeded. Pressure gauges will be used to monitor pressure changes. If MAOP is exceeded, the pressure change will be stopped until it can be remedied so that the MAOP is not exceeded.

Pressure Test Records: Records shall be kept of all pressure tests performed on the system. The records shall be kept for the life of the system. The records shall contain:

- Operators name and the name of the employee(s) who performed the test and the test company used
- Test medium
- Test pressure
- Pressure testing records
- Any leaks or failures noted and corresponding repairs made

Pre-Tested Pipe: Indiana Utilities Corp. keeps on hand an inventory of pre-tested pipe available for use in emergencies or in repair situations. The pipe shall be tested at pressures and durations, which allow their use without compromising the MAOP of the system the pipe is intended for use.

Inspection, Operations and Maintenance Schedule

Person	Description	Frequency
Kinney	Mains and Services-Leak Repair & Testing	
	• GLRD-95	As needed
	• LRR-95	As needed
	• TPR-95	As needed
Kinney	Regulator Station and Relief Valves	
	• RIR-95	Annually
	• RVIR-95	Annually
Kinney	Odorization Equipment and Odorant Levels	
	• AOR-95	Annually
	• Odorant level in diary	Monthly
Timberlake	Customer Meters	
	• Random Sampling Program	Annually
Timberlake	Cathodic Protection	
	• CPAS-10	Annually
	• MRR-95	Every 2 Months
	• AIR-95	As needed
	• EPVE-95	As needed
	• AC-08	Every 3 years
Puckett & Flickner	Surveys and Patrolling	
	• SP-00	Annually
	• DSP-10	Bi-Annually
	• BDLS-95	Annually
	• DS-10	Annually
	• PB-10	Annually
	• ILL-00	Annually
Kinney	Up-dating Mapping	Annually
Puckett	Valve Inspection and Maintenance	
	• KVI-10	Annually
Kinney	Continuing Surveillance CS-95	Annually

Exhibits Table of Contents

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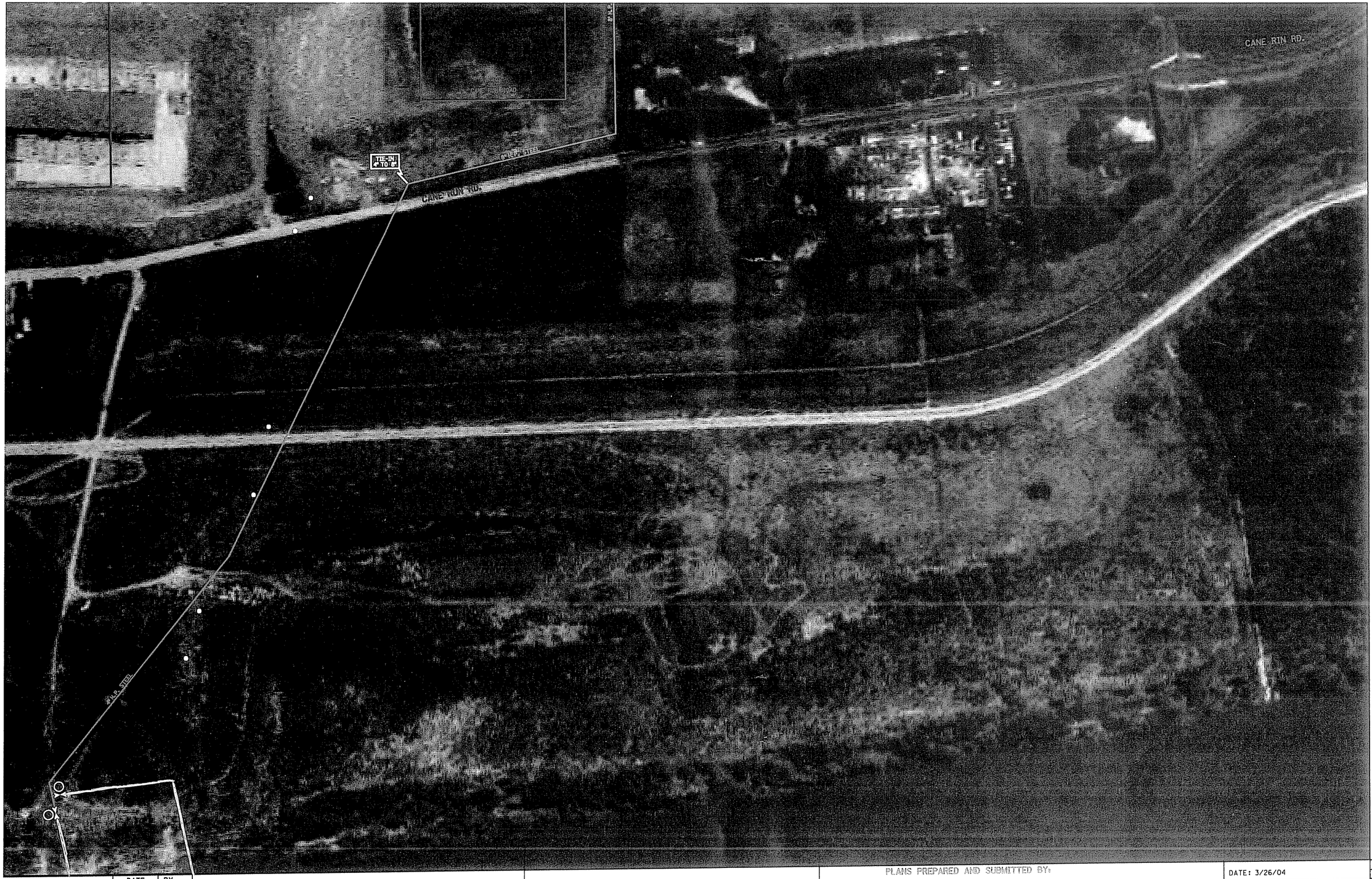

	DATE	BY
	6/17/02	AEI
	3/26/04	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Brown Offices

65 Aberdeen Drive
Glasgow, KY 42141
(270) 651-7220

714 Lyndon Lane
Suite 9
Louisville, KY 40222
(502) 339-1090

3590 Cherokee Street
Suite 401
Kennesaw, GA 30144
(770) 421-8422

www.AmericanEngineers.com

DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 129

SECTION
TOWNSHIP
RANGE

VALVES	
NUMBER	DESCRIPTION
5	4" GATE
7	4" GATE

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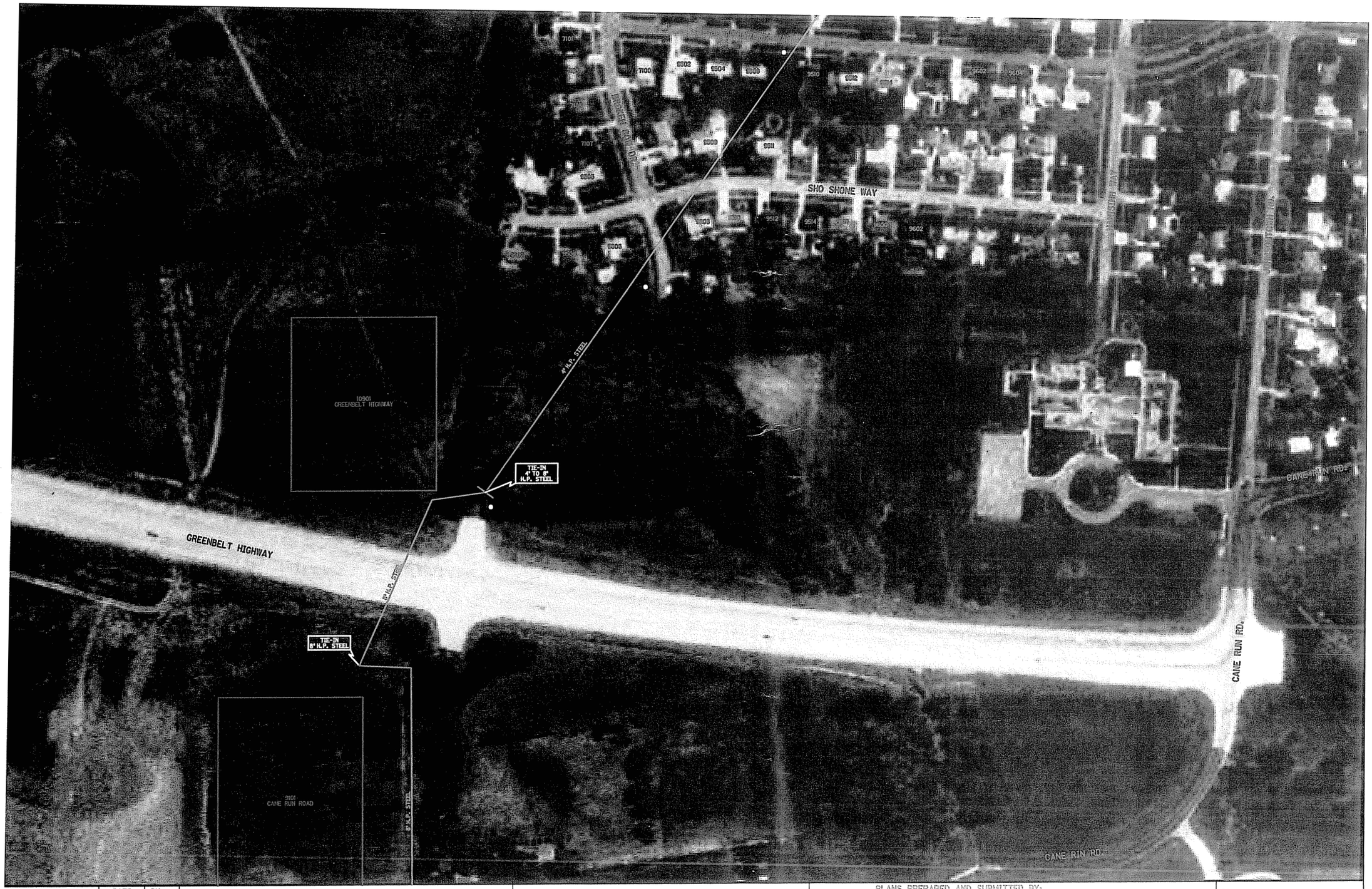

	DATE	BY
	6/17/02	AEI
	3/26/04	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Branch Offices

○ 65 Aberdeen Drive
Glasgow, KY 42141
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Kennesaw, GA 30144
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DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 130

SECTION
TOWNSHIP
RANGE

SHEET 129

DATE	BY
6/17/02	AEI
3/26/04	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Branch Offices

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Glasgow, KY 42141
(270) 651-7220

714 Lyndon Lane
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(770) 421-8422

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DATE: 3/26/04

SCALE: 1" = 100'

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SECTION
TOWNSHIP
RANGE

SHEET 130

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4"H.P. STEEL
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FALLING STAR WAY
MORNING STAR WAY
SKYLINE DR.
SUNNY VALLEY DR.
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DATE	BY
6/17/02	AEI
3/26/04	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Branch Offices

○ 65 Aberdeen Drive
Glasgow, KY 42141
(270) 651-7220

○ 714 Lyndon Lane
Suite 9
Louisville, KY 40222
(502) 339-1090

○ 3580 Cherokee Street
Suite 401
Kennesaw, GA 30144
(770) 421-8422

www.AmericanEngineers.com

DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 133

SECTION
TOWNSHIP
RANGE

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	DATE	BY
	6/17/02	AEI
	3/26/04	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

AMERICAN ENGINEERS, INC.
PROFESSIONAL ENGINEERING

Branch Offices

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DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 134

SECTION
TOWNSHIP
RANGE

SHEET 133

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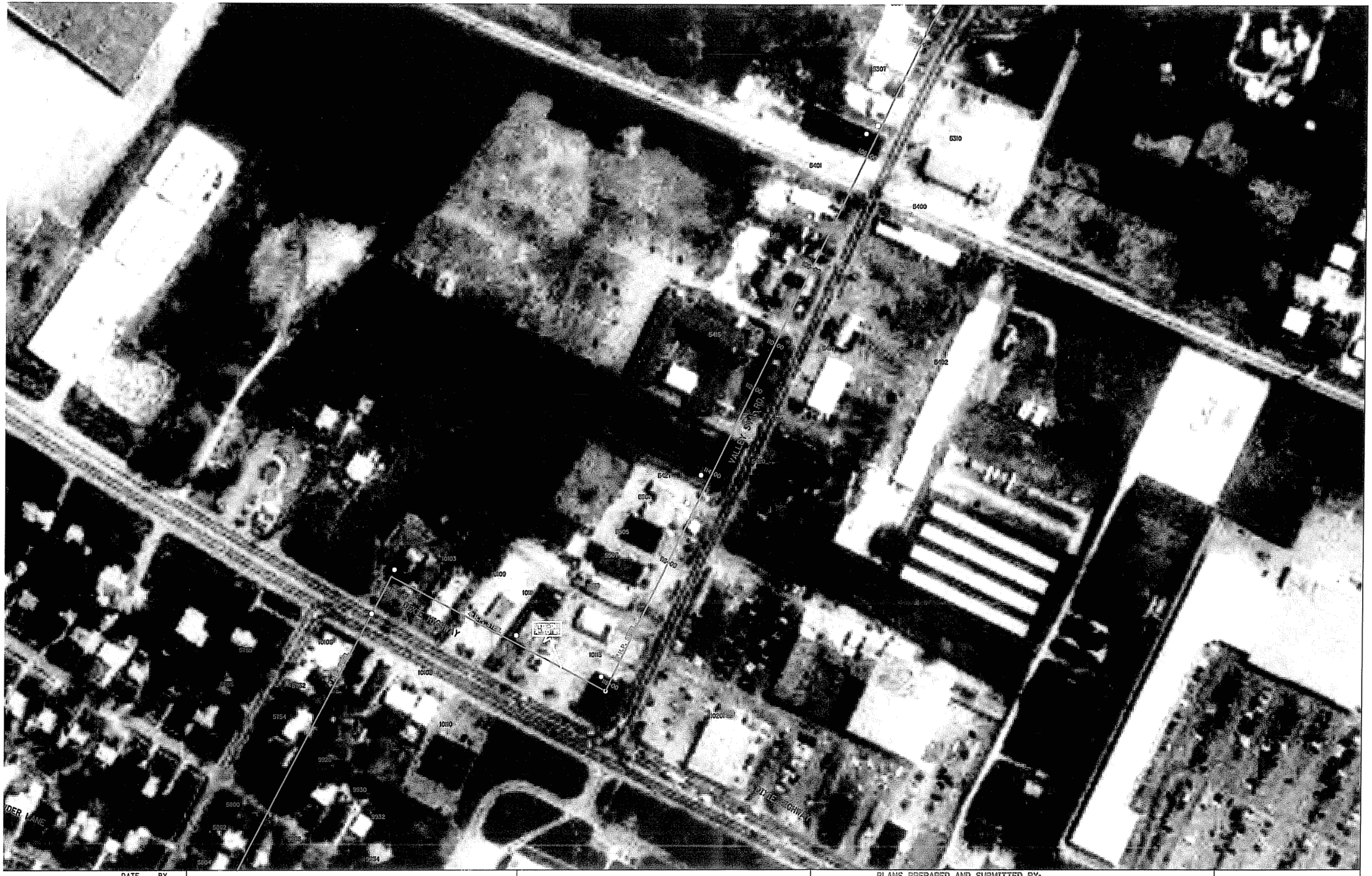
5307
5310
5401
5400
5402
VALLEY SPRING RD.
5103
5109
5111
5113
5120
5154
5800
5804
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9932
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10103
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	DATE	BY
	6/17/02	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Branch Offices

○ 65 Aberdeen Drive
Glasgow, KY 42141
(270) 651-7220

◎ 714 Lyndon Lane
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Louisville, KY 40222
(502) 339-1090

○ 3590 Cherokee Street
Suite 401
Kennesaw, GA 30144
(770) 421-8422

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DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 136

SECTION
TOWNSHIP
RANGE

SHEET 135

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SCRIMMS AVE.
SCRIMMS AVE.
MILLERS
WEST AVE.
GANDY RD.
AMRONA AVE.
ANNITA BLVD.
4" H.P. STEEL
VALLEY
4911
4910
4909
4908
4907
4906
4905
4904
4903
4902
4901
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	DATE	BY
	6/17/02	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP
0 100 200 300
FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:
AEI
Branch Offices
65 Aberdeen Drive, Glasgow, KY 42141, (270) 651-7220
714 Lyndon Lane, Suite 9, Louisville, KY 40222, (502) 339-1090
3590 Cherokee Street, Suite 401, Kennesaw, GA 30144, (770) 421-8422
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DATE: 3/26/04
SCALE: 1" = 100'
DRAWING NUMBER 138
SECTION
TOWNSHIP
RANGE

SHEET 137

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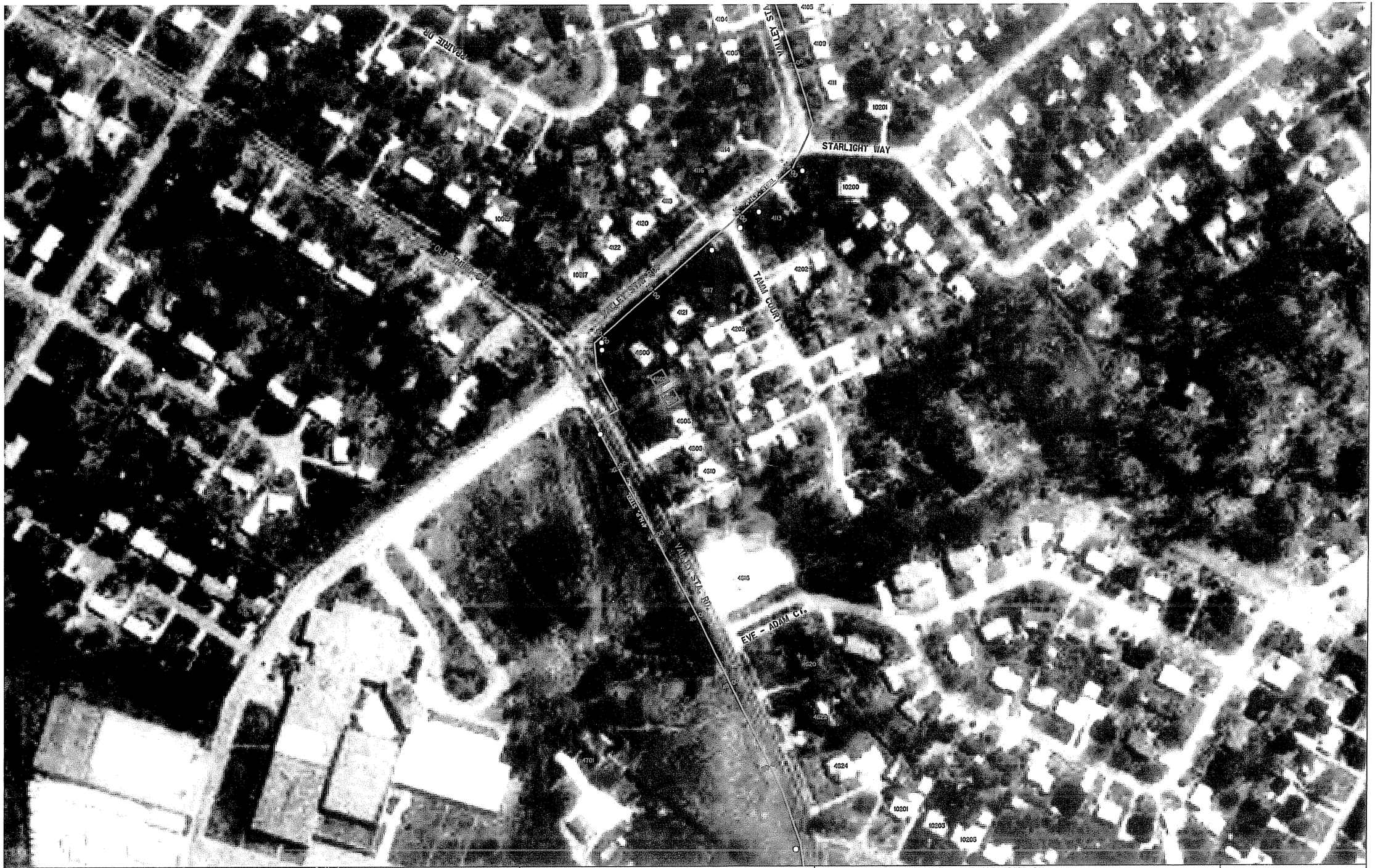

	DATE	BY
	6/17/02	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP

0 100 200 300

FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

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DATE: 3/26/04

SCALE: 1" = 100'

DRAWING NUMBER 139

SECTION
TOWNSHIP
RANGE

SHEET 138

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GAYWOOD DR.
WHITEHALL CT.
SILVERWOOD LN.
STONE STREET RD.
TIE-IN 8" H.P. STEEL
TIE-IN 4" TO 8" H.P. STEEL
NANKA RD.
ALGONQUIN TRAIL
VALLEY STA. RD.
CLEARFIRE DR.
3714
3715
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	DATE	BY
	6/17/02	AEI

INDIANA UTILITIES
NATURAL GAS SYSTEM

PROJECT LOCATION MAP
0 100 200 300
FEET
GRAPHIC SCALE

PLANS PREPARED AND SUBMITTED BY:

Branch Offices
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DATE: 3/26/04
SCALE: 1" = 100'
DRAWING NUMBER 141
SECTION
TOWNSHIP
RANGE

VALVES	
NUMBER	DESCRIPTION
4	2" STEEL
8	2" STEEL
#2	2" STEEL
#6	2" STEEL

SHEET 140

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