ICC Docket No. 12-0512
The Peoples Gas Light and Coke Company's Response to
Attorney General Data Requests AG 10.01-10.36
Dated: October 26, 2012

REQUEST NO. AG 10.29:

Ref: NS-PGL Ex. 20, pages 3-5; NS-PGL Ex. 20.1 (CDOT Regulation Costs) In the referenced testimony and in NS-PGL Ex. 20.1, changes in Chicago Department of Transportation regulations are described and estimated incremental costs of compliance are summarized. Please provide the following additional information associated with these changes and costs:

a. State when the revised CDOT regulations became effective.
b. Explain in detail each change in Company operating procedure that has been implemented in response to the revised regulations.
c. Provide copies of documents used to advise Company personnel of the changes identified and explained in your response to part (b).
d. Provide a detailed monthly itemization of all costs incurred by the Company to date in 2012 as a result of the changes in CDOT regulations, in each of the cost categories listed in NS-PGL Ex. 20.1 and each other cost category incurred (operating expenses, clearing accounts, construction costs, etc.)
e. Using the information in your response to part (d), please explain and reconcile the asserted test year incremental maintenance expenses in NS-PGL Ex. 20.1 to the amounts of actual expenses incurred to date in 2012.

RESPONSE:

a. July 2012
b. See attachments 1a and 1b for Peoples Gas operating procedures with noted changes due to revised regulations.
c. July 23, 2012 – Juan Santiago (AMRP special projects lead) provided links to new regulations via email (attachment 2a) to all general managers, Project Management Office, and Construction Managers. Attachment 2a refers to the new regulations which can be found at this public link: http://www.cityofchicago.org/city/en/depts/cdot/provdrs/construction_information/svcs/view_constructionstandards.html October 24, 2012 - Gas Standardization group issues new guidelines to reflect regulation changes (attachment 2b).
d. Attachment 3 is a breakdown of all monthly costs incurred in 2012 by line item due to the CDOT regulation changes. Total additional cost amount to $168,510.05 to date. While the regulations took effect in July 2012, the City has been working with operators on implementation methods and timing. We expect full implementation and cost in 2013.
e. All costs projected for 2013 are based off of PGL historical data and projected 2013 construction. (See attachment 4 as discussed in AG 10.30 for calculations, assumptions and historical data)

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GUIDELINES FOR STEEL MAIN INSTALLATION	Classification **MAIN WORK** **Order 9.400**
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I. PURPOSE

This order specifies guidelines and departmental procedures to be followed for the safe and proper installation of steel main.

II. SCOPE AND APPLICABILITY

This order shall be followed when installing steel main. The *employee-in-charge* is responsible for assuring that all guidelines and procedures contained herein are followed. Deviation from these procedures are to be made only by the direction of the district manager.

III. REFERENCED ORDERS

General 3.000 - Pressure Tests - Mains And Services
General 3.100 - Purging - Mains And Services
General 6.000 - Excavation And Trenching Requirements
General 6.300 - Procedure For Planning And Safely Performing Excavations Over Or Near Company And Other Utility Facilities
General 7.009 - Procedure for backing and compacting openings
Main Work 1.000 - Main Installation Depth And Clearance Requirements
Main Work 1.092 - Reinforcement of Compression Fitting And Posi Coupling Joints On Steel Main With Joint Harness
Integrys Standards Manual, Section 920 - Damage Prevention – Trenchless Technologies

IV. PERMIT(S)

There shall be a valid permit for the installation of the steel main on the jobsite. Any special instructions or restrictions specified on the permit regarding traffic control, lane closures, and time restrictions shall be followed.

V. TRAFFIC CONTROL

Set up the proper traffic control devices. Barricading materials such as cones, flags, barricades, advance warning signs and vehicles shall be positioned to protect the worksite in accordance with requirements specified in the company's "Work Area Protection And Traffic Control Guide."

VI. MATERIAL

1. Coated steel pipe and associated fittings/materials used, shall be company approved.

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2. Review the job and prepare material request form(s) using the proper work order number(s) to obtain material from the storeroom.
3. Each section of pipe and gas system component shall be inspected prior to installation to ensure its operational integrity and serviceability. Practical components with working parts shall be manually operated prior to installation (e.g., close/open valves).
4. When the job is completed, prepare return tickets and return all excess or unused material to the storeroom.

VII. LOCAL FACILITIES IN CONFLICT WITH LINE OF-LAY

1. Observe and follow Peoples Energy “Excavation Guidelines” (General Order 0.800 pg. 8-9).

2. Verify that other utilities have responded to the company's "DIGGER" locate request. Call other utilities for additional locates if necessary. When using "DIGGER," a 48hour (not counting weekends and/or holidays) notice must be given prior to beginning any excavation.

3. Check the area for signs of other facilities and pull manhole covers to determine exact location, depth and size. If entry into vault is necessary, follow the procedures identified in the Distribution Manual under General Order 2.300 (Confined Space Entry Procedure Including Permit Requirements).

4. Sweep the area of construction with a pipe locator (M-Scope) to verify the location of other utilities that could be in conflict with the proposed line-of-lay.

5. Locate any existing company gas facilities that could be in conflict with the proposed line-of-lay. Prior to digging, locations of mains and/or services should first be obtained from company records and then verified in the field by a pipe locator.

6. Test hole by hand, if necessary, to avoid damage to any utility or other structures in conflict with the proposed line-of-lay. Determine the exact location, depth, and whether adjustments are required. Power equipment shall not be used for digging closer than an estimated 24" to other underground facilities or to live gas facilities, unless they have been exposed by hand digging.

7. Refer to General Order 6.300, (Procedure For Planning And Safely Performing Excavations On Or Near Company And Other Utility Facilities), for more detailed procedures.

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VIII. PIPE HANDLNG

I. Steel pipe shall be transported to the jobsite on flat-bed truck or trailer and stored as close to the line-of-lay as practical.

2. During pipe lifts, nylon slings shall be positioned to avoid dropping the pipe.

3. At the jobsite, straight lengths of pipe shall be stored off the ground on timbers or with at least some type of padding to protect the pipe's coating from damage and to minimize dirt or debris from entering the pipe.

4. When moving pipe, avoid damaging the beveled pipe ends or the pipe's coating.

5. Visually check the pipe's coating and repair visible nicks when observed.

6. When pipe lengths are being joined or lowered into the ground, avoid nicking or damaging the pipes coating.

7. Any foreign debris within the pipe shall be removed prior to pipe installation.

8. At the end of the workday, all pipe ends of installed steel main must be sealed (capped or plugged) to prevent debris or liquids from entering.

9. Steel pipe shall be grounded if working under overhead power lines.

IX. EXCAVATION AND INSTALLATION

1. The trench for installation of the steel main shall be kept as straight as possible and at a uniform distance from the lot line for ease in future pipe locating.

2. Refer to the work order or drawing and mark/stake out the correct line-of-lay.

3. The trench shall be deep enough to maintain a minimum of 30" of cover from the top of the
main to grade. If it appears that the existing grade will change (e.g., during street reconstruction), adjust the depth of the trench accordingly. When other utility involvement or a consolidated rock subsurface requires that a main be installed with less than 30", a minimum cover of 24" shall be attained. If 24" of cover cannot be obtained, the main installation must be routed under the foreign utility or alternatively have the foreign utility relocated.

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4. The installation of steel main with less than 24" of cover is discouraged. However, if 24" of cover cannot be achieved and no other alternative exists, a main may be installed with less than 24" of cover, provided that adequate protection from damage by external forces is installed (e.g., half casing 6" over the top of the main with sand padding in between). This action requires prior notification and approval of the district manager.
5. Each steel main shall be installed with sufficient clearance from other utilities to allow for proper maintenance and to prevent against possible damage during maintenance of the foreign utility. If conditions warrant minimal clearance and there is concern about this clearance, an insulating shield should be utilized in order to prevent future contact between the main and another utility.
6. Refer to Main Work Order 1.000 ("Main Installation Depth And Clearance Requirements), for additional information and detail.
7. The width of the trench being excavated shall be kept to a minimum, but should be wide enough to install the diameter (size) of the pipe and to minimize contact of the pipe coating with the trench wall upon main installation. Refer to the table (below) for guidelines regarding trench width specifications.
8. If sand is to be used as backfill material, the bottom of the trench shall be padded with 6" of sand prior to pipe installation. This is necessary to completely encircle the pipe with uniform backfill material to ensure proper cathodic protection. As an alternate procedure, sandbags may be placed in the bottom of the ditch at appropriate intervals to suspend the pipe off the bottom of the ditch and allow sand to flow around the pipe during backfilling.
9. If streets, sidewalks or driveways must be open cut, they should be saw-cut prior to breaking the pavement and excavating trench.

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TRENCH SPECIFICATIONS

SIZE OF PIPE	UNSHEETED TRENCH WIDTH OF EXCAVATION*	SHEETED TRENCH WIDTH OF EXCAVATION
2" and smaller	14	-
4"	16	-
6"	28	30
8"	30	30
12"	24	36
16"	28	42
20"	36	48
24"	40	52
30"	46	58
36"	52	66
42"	58	72

*Parkway Main - Backhoe bucket width for parkway installations will be no greater than 12" for 2", 4", and 6" pipe.

10. When excavation is complete, inspect the bottom of the trench for debris (i.e., broken concrete, rock, or foreign material), which may penetrate the pipe's coating. These objects should be removed and the bottom of the trench shall be padded with 6" to 12" inches of sand. Additionally, if sand is to be used to pad the bottom of the ditch, the pipe shall also be covered with a minimum of 6" of sand to completely encircle the pipe with a uniform backfill material to ensure proper cathodic protection.

11. The pipe may be lowered into the trench by hand or with a nylon sling and equipment.

12. If trench walls contain jagged rock or objects, either widen ditch or install rock shield around pipe to prevent damage to its coating.

13. Main shall be installed on firm ditch bottom to prevent lateral or vertical movement.

14. Based upon soil type and conditions that may affect soil stability, evaluate the need for cave-in protection (shoring) if individuals are required to enter any openings. Refer to General Order 6.000 (Excavation And Trenching Requirements) for more detailed procedures.

15. If any ditch or excavation is left open for an extended period (even over night), it shall be protected with snow fence, barricades, cones, plates, plywood, warning tape etc., as conditions warrant, to prevent anyone from falling into or entering the opening.

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X. AUGERING, BORING OR MOLING

1. Reference the Integrys Standards Manual, Section 920, - Damage Prevention – Trenchless Technologies.
2. If augering, boring or moling is required, lay out the job so that these operations may be conducted (if possible) at the same time as the trenching.
3. Utilize trenching machines where feasible and utilize augering, boring or moling methods for crossing sidewalks, driveways, streets and near trees (to avoid root damage). Always use care when utilizing any of these procedures around tree root systems.
4. When pulling pipe through an auger hole, the coating must be checked as the pipe exits to ensure that it has not been damaged. All damaged coating must be repaired.

XI. JOINING

1. Each main or service must be designed and installed so that each joint will sustain longitudinal pullout or thrust forces due to thermal external or internal loading.
2. Each joint must be made in accordance with applicable procedures and with the proper tools.
3. All persons who make-up joints or fittings shall be qualified.
4. Welding is the preferred joining method. Posi and Dresser couplings are also acceptable joining methods. Posi and Dresser couplings shall be reinforced in accordance with Main Work Order 1.092 (Reinforcement Of Compression Fitting And Posi-Coupling Joints On Steel Main With Joint Harness).
5. All welding must be performed by a qualified welder and in accordance with the procedures contained in the company's Welding Manual.
6. Welds shall be Non-destructive Tested in accordance with Table 6 of the Welding Manual.

XII. VALVING

1. Valves (medium pressure) shall normally be installed at a maximum interval of four (4) city blocks (50-100 service pipes).

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2. Roadway boxes shall be utilized for valve access at all valve locations, unless drawings specify a valve basin. Valve basins shall be installed with all valves greater than 6" in size.
3. Valves shall be installed at readily accessible locations, preferably in the parkway. Valve basins and valve boxes shall be independently supported from the main.
4. Valve basins and valve boxes located in the roadway, shall be located away from heavy traffic and the course of surface water, if possible.

XIII. HOLIDAY DETECTON AND WRAPPING

1. Prime and wrap the welded joints and all visible nicks found in the pipe's coating.
2. Coat and wrap all fittings that will be buried.
3. Prior to lowering the pipe in the trench, run the holiday detector (jeeper) along the pipe and over all handwrapped joints and fittings to check for nicks or scratches in the pipe's coating. Repair any damages in the coating with pipe wrap tape.

XIV. CATHODIC PROTECTION

Steel mains shall be cathodically protected in accordance with the "Corrosion Control" section of the Distribution Department manual. This includes, but is not limited to, coating and wrapping pipe and fittings, and the installation of anodes, insulators, test leads, and test stations. Refer to engineering drawing or test station tickets for locations of test stations.

XV. BACKFILLING

1. In "non-paved" areas, excavated material is suitable for backfill if it does not contain brick bats, excavated pavement materials, debris, large rocks, cinders, soft organic material, and has an acceptable moisture content.
2. In "paved" areas, excavated material is **NOT** suitable for backfill. Only use sand that complies with CDOT specifications for backfill.
3. If excavated material cannot be reused, it shall be transported to the district shop spoil pile and be replaced with yard sand that has the proper moisture content and other requirements for backfilling.
4. Thoroughly compact the bottom of the excavation until no further settlement is

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observed. If sand is to be used as backfill material pad bottom of excavation with 6" of sand or install sand bags prior to lowering pipe in ditch.

5. After installation of pipe in ditch, add backfill in 6" lifts and compact each lift at the rate of ten (I0) seconds per square foot.
6. Compaction shall be accomplished by use of hand-held pneumatic tampers (small openings, defined as less than 50 sq. ft.) or vibratory plate compactors (large openings and trenches).
7. The backfill density in paved areas is to be tested with a dynamic cone penetrometer (DCP) in order to establish 95% compaction. In other areas it shall be compacted so as to prevent settlement.
8. Top off ditch in-paved areas with temporary asphalt.
9. Clean up the jobsite and ensure that it is left in a safe, clean and tidy condition.
10. Refer to General Order 7.009 (Procedure For Backfilling and Compacting Openings) for more detailed procedures.

XVI. PIGGING

Continuous steel main installations 300' in length and greater shall be pigged. Pigging is necessary to remove any debris, dirt, rust, scale or water. The general supervisor shall determine the number of passes.

XVII. PRESSURE TESTING

All steel mains shall be pressure tested in accordance with General Order 3.000 (Procedure for Pressure Testing Mains and Service Pipes) after construction and prior to gassing. If the test indicates that a leak exists, the leak shall be eliminated and the pipe shall be pressure tested again prior to placing the section in operation.

1. The minimum test pressure for coated and wrapped steel pipe shall be 100 PSIG.

2.. Tie-in pieces shall be pressure tested prior to the tie-in and the tie-in joints shall be soap bubble tested at the gas pressure available in the distribution system at the time of the tie-in (refer to General Order 3.000 for more detailed procedures).

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XVIII. TIE-IN AND GASSING

Follow purging and gassing procedures outlined in General Order 3.100 (Purging and Gassing Mains and Services).

1. Mains 3" diameter and smaller, regardless of length, may be gassed without a nitrogen purge. 4" and 6" diameter mains, less than 100' in length, may be gassed without a nitrogen purge.

   Note: Any main gassed without a nitrogen purge, shall have the gas released into one end of the line in a moderately rapid and continuous flow to prevent the formation of a hazardous mixture of gas and air.

2. 4" and 6" diameter mains, 100' in length or longer, and 8" diameter and larger mains of all lengths shall be purged with nitrogen prior to gassing.

3. To assist in purging operations, an oxygen analyzer, combustible gas indicator and burn bag test shall be utilized to verify completion of purge.

4. Refer to General Order 3.100 (Purging And Gassing - Mains And Services) for more detailed procedures.

5. If necessary when performing the tie-in, shut required valve(s), set line stopper(s), set bags and stoppers, tap tapping tee(s), etc. As required, install manometers, pressure gauges and bonding cables. For large diameter tie-ins, refer to the specific written shut down and tie-in procedure.

XIX. PAPERWORK

Complete all of the necessary ticket work and submit as-built drawings immediately. Refer to the "Ticket Work" section of the Distribution Department manual.

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I. PURPOSE

This order specifies the procedures for installing direct burial polyethylene pipe for new and replacement mains in systems up to 60 psig MAOP.

II. SCOPE AND APPLICABILITY

This order, along with General Order 0.800 pg. 8-9, shall be followed when installing direct burial polyethylene mains 2" through 18” in diameter.

III. PROCEDURE

A. PIPE HANDLING, STORAGE, AND INSPECTION

1. Only nylon slings and spreader bars or padded forklifts shall be utilized to lift polyethylene pipe (chains are prohibited). During pipe lifting, excessive bending of the pipe shall be avoided. Do not roll or drop pipe off the truck. Improper handling or abuse can damage piping, compromise system performance and result in injury or property damage.

2. Straight pipe shall be transported to job sites on flat-bed trucks or trailers.

3. At the job site, straight lengths of pipe shall be stored off the ground on 4" x 4" or 2" x 12" timbers, spaced less than 20' apart to minimize the possibility of crushing or piercing and to diminish the possibility of dirt or debris from entering the pipe. Coiled pipe should be uncoiled as soon as possible to allow it to relax.

4. Pipe stored at job sites shall be protected from damage. Polyethylene pipe shall not be dragged over sharp rocks or other abrasive objects. Sand bags and/or pipe rollers shall be used to prevent damage when dragging pipe over pavement/rough terrain.

5. Prior to installation, all pipe shall be inspected for damage such as kinks, gouges, punctures, and deep scratches (in excess of 10% of the pipe wall thickness). Defective piping shall be cutout and discarded.

6. All foreign debris within the pipe shall be removed prior to installation.

B. TRENCHING, BACKFILLING AND COVER

1. The trench for the installation of direct burial polyethylene mains shall be kept as straight as possible, and be located at a uniform distance from the lot line to facilitate future pipe locating activities.

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2. Polyethylene pipe, without fittings, may be permanently bent to a radius 20 times the pipe diameter without damage or detrimental effect to the physical properties of the pipe. In sections where a fitting is present, the bending radius shall be limited to 100 times the pipe diameter.

3. The pipe trench shall be wide enough to provide some movement of the polyethylene pipe. Polyethylene pipe shall be snaked within the trench to alleviate the contracting force from acting upon the pipe in a straight line. Recommended trench widths for polyethylene mains are indicated in the following table:

PIPE DIAMETER	MINIMUM TRENCH WIDTH
1" and smaller	12”wide
2"	12”wide
4"	16” wide
6"	18 ‘ wide
8"	20” wide
12"	24” wide
18”	36” wide

4. Cover Requirements - For depth requirements Refer to Table 920.10.1 – Minimum Depth of Cover Requirements referenced in the Integrys Standards Manual, Section 920, Damage Prevention - Trenchless Technologies.

Clearance Requirements – Refer to the Integrys Standards Manual, Section 920, Damage Prevention – Trenchless Technologies.

5. Trenching machines shall be utilized where practical. In addition, boring or augering shall be performed under sidewalks, driveways, streets, and near trees (to avoid root damage). When augering a tree, the minimum limits of the bore should be the drip line of the tree. For Damage Prevention - Trenchless Technologies procedures including sewer lateral considerations, please reference the Integrys Standards Manual, Section 920.

6. Polyethylene pipe shall be continuously supported by the trench bottom to avoid damage during compaction.

7. Polyethylene main may be laid directly on the trench bottom if the base is free of debris such as rocks, concrete, glass, etc. that could damage the polyethylene pipe. If necessary, the trench bottom should be lined with a 3" layer of sand padding.

8. The existing soil in parkways may be used as backfill material if the soil is free of debris

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that could damage the pipe. If necessary, a 6"-12" lift of sand padding shall be used to protect the polyethylene pipe. In addition, trench compaction shall not be performed until the pipe is covered with 6"-12" of backfill material (General Order 7.009).

C. CASING POLYETHYLENE MAINS

1. Polyethylene pipe installed via the open-cut method shall normally not be cased. However, at intersections, a steel casing may be specified depending upon utility congestion or construction plans of others.

   Note: Refer to Main Work Order 9.510 for insertion of polyethylene main in retired cast or ductile iron main.

D. VALVING

1. Valves shall normally be installed at a maximum interval of four city blocks (50-150 services).

2. Polyethylene valves, 2"- 8" in diameter, will normally be utilized for valving of polyethylene mains.

3. Roadway boxes, compatible with the valve, shall be utilized for valve access at all locations. A valve basin is required for 8" and 12" IPS valve installations. All polyethylene pipe should be protected with fiberglass, reinforced pipe shield when installed through a basin wall.

4. All roadway boxes or valve basins shall be installed and supported so they do not place a stress on the polyethylene pipe.

E. MARKING AND LOCATING

1. A #12 gauge insulated copper clad steel wire (HDPE) shall be installed as a locate (tracer) wire with direct burial polyethylene mains and service pipes. Locate wires may also be installed with inserted polyethylene service pipes to provide for direct hook-up of the m-scope.

2. The locate wire should normally be installed 2" - 4" from the main and may come in contact with the polyethylene pipe, but shall not be wrapped around, strapped or taped to the pipe. Locate wires may be installed in the same bore/auger hole as the pipe.

3. It is intended that a gas main locate wire be a continuous run (electrical continuity) throughout the entire block to facilitate locating activities. Splicing of multiple lengths of locate wires is an acceptable practice using the 3M Splice Kit (Item #1416540), King Connector (Item # 1416457) or Burndy Connector (item # 1201159). Double-

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faced tape (item # 1207096) is required for use as a protective wrap with Burndy connectors.

Prior to April 11. 2011, service pipe locate wires were connected to the main locate wire only by wrapping the service wire around the main wire approximately five (5) wraps. Commencing on April 11. 2011, service pipe locate wires shall be connected to the main locate wire by wrapping the service wire around the main wire approximately five (5) wraps, then stripping 1" of insulation from the main locate wire and stripping 1" of insulation from the service locate wire, then attaching the service locate wire to the main locate wire with a Burndy connector (item # 1201159). Wrap the entire connection with double-faced tape (item # 1207096). Bring the other end of the service pipe locate wire above grade and tape or wrap around the riser. Also, tape this end of the wire to insulate from the metallic riser. Wrapping the service pipe locate wire around the main locate wire normally allow mains to be located by connecting the m-scope to the service pipe locate wire. Wrapping the service pipe locate wire around the main locate wire and connecting with a Burndy connector (item # 1201159) will increase the success rate for mains to be located by connecting the m-scope to the service pipe locate wire. (This is accomplished with direct hook-up of the m-scope to the copper wire end (insulation must be stripped off) at the service riser.)

4. Install 6" wide warning tape (yellow) at a location no closer than 12" above the polyethylene pipe and at least 12" below grade. It is not necessary to install warning tape through the bored or augered portion of the main installation.

F. JOINING

1. Each main or service shall be designed and installed so that each fusion joint will withstand pullout forces caused by the thermal expansion and contraction of the piping, or by anticipated external or internal forces.

2. Each fusion joint shall be made in accordance with written procedures approved by the company's Technical Training Section.

3. All individuals performing the fusion process shall be qualified by the company's Technical Training Section in accordance with Main Work Order 9.100.

4. All fusion joints shall be made with fusion equipment approved by the company's Technical Training Section.

5. Company and contractor personnel, qualified to inspect by the Technical Training Section shall visually inspect each fusion joint for quality and acceptability.

6. Fusion joint samples must be sent to Technical Training for quality testing per Main Work Order 9.100, "Qualification and Inspection Requirements for Butt and Sidewall Fusion." Company inspectors (i.e., engineers, general supervisors, construction

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technicians, crew leaders) are responsible for completing information on the fusion joint sample tag (mimeo 12), and for transporting the fusion joint(s) to Technical Training. Technical Training performs non-destructive evaluation and destructive tests of each joint sample.

G. MAIN PIGGING

All main sections 300' or longer in length shall be pigged. Smooth surfaced "Polly Pigs" shall be utilized for the removal of dirt, water, and other debris. Pigging shall not be initiated until the fusion joints have sufficiently cooled.

H. PRESSURE TESTING

1. All polyethylene mains shall be pressure tested in accordance with General Order 3.000.

2. Prior to pressure testing, all end caps shall be fused and braced as specified in Main Work Order 1.090.

3. When using air compressors to pressure test sections of polyethylene main, care must be exercised to minimize contamination of the pipe with excessive amounts of oil or other agents. Oil has the effect of plasticization (softening) on polyethylene that results in a small decrease in strength where concentrations of oil are absorbed by the polyethylene. Traps or filters should be used on the discharge side of the compressor to minimize the amount of contamination present in the air. The temperature of the air from the compressor should be low enough to prevent the test temperature from exceeding the maximum allowable 100° F for thermoplastic materials.

4. When pressure testing large volume sections of polyethylene main, the operator should be aware of the creep characteristics of polyethylene pipe and the effects of temperature change. After initial pressurization, polyethylene pipe may continue to expand slightly causing a noticeable drop in the gauge reading that will then stabilize after a few minutes. A long-term reading should be initiated at the stabilization point.

I. DISSIMILAR PIPE JOINING (CROSS-FUSION)

All dissimilar pipe joining (i.e., joining medium density-yellow pipe to existing Driscopipe high density-black pipe) shall be performed by the electrofusion process. Although cross-fusion involves the joining of varied melt indexes, the electrofusion procedure will fully compensate for any differences, producing a quality fusion joint. This pertains to all tie-ins of dissimilar pipe densities (See Main Work Order 9.080).

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J. CONNECTING

1. When connecting 2" diameter and larger polyethylene mains to existing steel or cast iron mains, a polyethylene to steel transition fitting may be used. Company approved compression or mechanical type couplings can be installed in place of transition fittings (universal fittings, PE to CI, and PE to Steel couplings).

   a. For connections to steel mains, a butt weld on the steel side of the transition fitting is recommended. However, a compression coupling may be used if necessary.

      Note: The steel side of the transition fitting shall not be shortened. Do not weld a a harness, strap, threadolet, etc., onto the epoxy-coated (painted) portion of the fitting. All welding must be performed on the uncoated steel portion of the transition fitting. If necessary, the steel portion of the transition fitting may be extended by welding a piece of pipe to the factory end of the transition fitting and then attaching the strap or other item to the extension.

   b. For connections to cast iron mains, the final tie-in shall be on the steel side of the transition fitting using a cast iron to steel insulating fitting. The steel portion of the transition fitting shall be wrapped, and an anode and test station installed.

2. Compression couplings shall not be used on 2" diameter and larger polyethylene pipe. The only mechanical connections allowed for use are those designed specifically for use on polyethylene pipe and approved by the company (e.g., "The Scope" repair fitting).

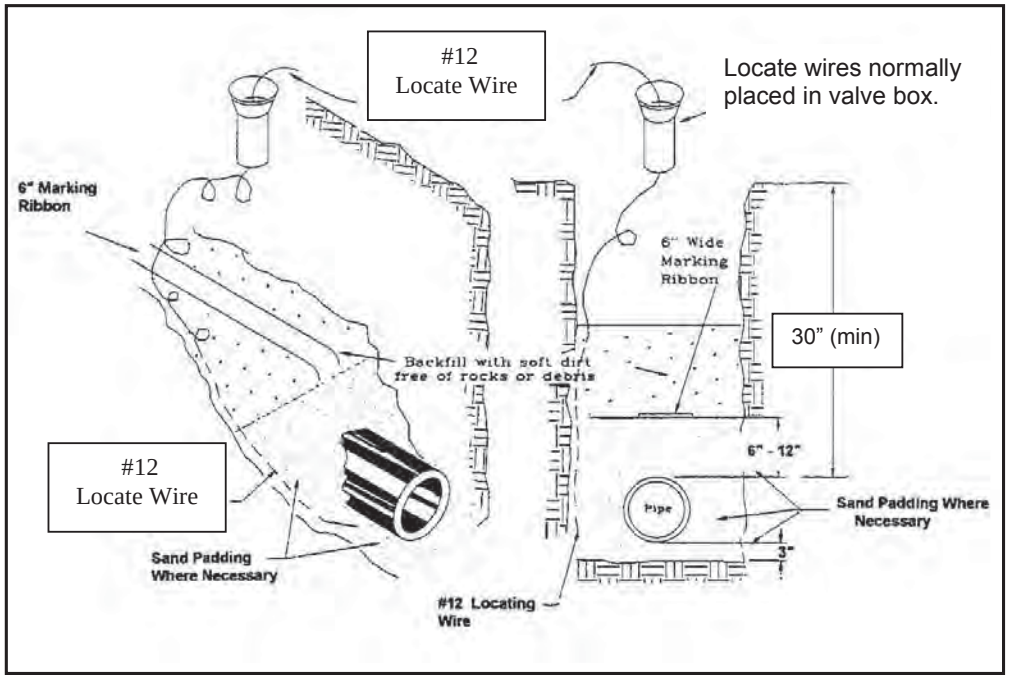
3. At all tie-ins for polyethylene mains 2" diameter and larger, a flange anchor and a concrete block shall be installed on the polyethylene if any unrestrained mechanical couplings are used in the connection (e.g., an unrestrained universal compression coupling on the steel side of a transition fitting). Refer to Main Work Order 9.510 for details.

K. REPAIRING

1. Damaged sections of polyethylene pipe shall be cut out and replaced with new polyethylene pipe. Heat fusion, electrofusion, or use of an approved stab fitting (e.g., “The Scope”) will be required to connect the new pipe. With respect to the butt fusion procedure, the use of a cheater bar on mechanical fusion equipment is prohibited. A forced butt fusion joint may result in a field failure when it is subjected to thermal expansion/contraction. Electrofusion will be required in most connections, on at least one side of the repair.

Subject	DISTRIBUTION DEPARTMENT	
GUIDELINES FOR INSTALLING DIRECT BURIAL POLYETHYLENE MAIN	Classification **MAIN WORK Order 9.500**	
	Current Date:	**10/26/2012**
Page 7 of 7	**Superseding 9.500**	**Dated 10/05/2012**

DIRECT BURIAL OF POLYETHYLENE MAIN



PGL AG 10.29 Attach 02a

From: Santiago, Juan F
Sent: Monday, July 23, 2012 7:08 PM
To: Hoops, Kyle A; Just, John J; Lazzaro, David J; Lenart, Theodore J; Rainge, Lance L; Szumski, Laurence P; Minga, Philip J; Morris, Libby; Seyko, Kevin; Dulle, Jim; Hamm, Brian; Parker, David
Cc: Mantilla, Wilson P; Neely, Dawn P; Sandonato, Thomas P; Evans, Willard S; Kapoor, Vipul; Giuseffi, Anthony J; Sintich, Frank A; Beall, Heather A; Perez, Thomas A; Ziska, James T; Pacholski, Catherine J; Johnson, Karen L
Subject: Updated Chicago Department of Transportation (CDOT) Regulations

The new CDOT Regulations have been posted to their website and can be found by clicking the link below:

http://www.cityofchicago.org/city/en/depts/cdot/provdrs/construction_information/svcs/view_constructionstandards.html

I have also created a PDF document (23MB) that combines all eleven documents into one file. This file can be found on SharePoint and by clicking on the following link:

http://projects.integrysgroup.com/projects/pgl_amrp/ConstructionPlanning/Forms/AllItems.aspx?RootFolder=%2Fprojects%2Fpgl%5Famrp%2FConstructionPlanning%2FReference%20Documents&FolderCTID=0x0120006F81FE1E87C70E45A65832DC7FF713E6&View=%7b982EA0BB-9CBF-4E49-A9EB-11FE935FC324%7d&InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersistence

Thank you,
Juan

PGL AG 10.29 Attach 02b

From: Monnette, Justin M
Sent: Wednesday, October 24, 2012 7:31 AM
To: PGL Operations Leaders North Shop; PGL Operations Leaders Central Shop; PGL Operations Leaders South Shop; PGL Operations Leaders Field Ops; PGL Operations Leaders Field Support; NSG Operations Leaders
Cc: TEG Gas Standardization; TEGS Technical Training Group; Webb, Thomas J
Subject: PGL & NSG Advance Leader Notice: Gas Standardization 10-26 Release

Sent on behalf of Bob Magnuson

Good Afternoon,

The Gas Standardization Group will be issuing to the employees of **PGL and NSG** via a posting to the ***PowerNet*** changes to orders with an effective date of October 26, 2012. The changes being made can be summarized as follows:

PGL General Order 0300 & NSG General Order 2.020: Leak Classification Guideline: Editorial updates are being made to these procedures regarding leak classification guidelines to more closely mirror existing work practices.

PGL Main Work Order 9400 & 9500: Compliance with Backfilling Requirements within City of Chicago: Editorial updates are being made to these procedures regarding City of Chicago backfilling practices to have them more closely mirror existing practices.

PGL Main Work Order 9100: 3rd Party Inspection of Fusion Equipment: The procedure is being updated to state that, "Contractor fusion equipment will be annually inspected and approved by TTS personnel, a qualified company contractor, or an approved and qualified 3rd Party organization appointed by either the company or the company contractor."

Please review these items with your work groups as you feel is appropriate.

Robert M. Magnuson, P.E.
Manager - Corporate Gas Standardization Programs | Gas Engineering | Integrys Business Support, LLC

920-433-1106
920-609-3713 *cell*
920-433-1360 *fax*
rmmagnuson@integrysgroup.com

www.integrysgroup.com

Providing support for Integrys Energy Group, Integrys Energy Services, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Upper Peninsula Power Company and Wisconsin Public Service.

Code Reference	Code Desicription	MAINTENANCE 2013
3B1/Appedndix F	Degradation Fee impact on overall permit fee (Moratorium Street)	$7,454,473
3B.12	Parking fee for payboxes	$648,116
3B.13	Cost for Project Signs	$6,458
3C.1.1	Cost to investigate third party hits	$207,480
5A	Trench Backfill if less than 4 'wide: FA22, CA13 or 16, Flowable Backfill; 4' or more wide: FA6 or 22, CA6, 11, 13 or 16, Flowable Backfill	$1,392,902
6C	Utility cut patches-150 feet or less apart or placed within 6 months- all to be included in resurfacing quarter or more of roadway section	$1,631,473
6C.8	New 'Abbey Road' bar crosswalks, bike lane symbols & markings, required. All in thermoplastic material, not paint. Entire crosswalk/intersection impacted needs to be restored. Not just impacted area.	$1,025,795
6C.10	Hot Poured Joint Sealant' -full perimeter-all private utility cuts	$957,915
Appendix A	Change restoration extension of openings from 3' overlap to 5' overlap	$607,759
	Total Cost/Year	**$13,932,372**

2012 Cost July	August	September	October	Total
$2,500.00	$2,500.00	$11,375.00	-	$16,375.00
$9,254.00	-	-	-	$9,254.00
-	-	-	-	$0.00
-	-	-	-	$0.00
-	-	-	-	$0.00
-	-	-	-	$0.00
-	-	-	-	$0.00
-	-	-	-	$0.00
-	-	$83,477.65	$59,403.40	$142,881.05
		2012 Cost to Date:		**$168,510.05**

Comments

PGL is currently working with CDOT to update moratorium information that will be used to flag streets eligible for the degradation fee.

Currently, Peoples Gas is working with CDOT on an implementation plan.
Purchased for 2012 prior to regulation change

Peoples Gas has not seen any third party investigation costs to date

Currently, Peoples Gas is working with CDOT on an implementation plan.

Currently, Peoples Gas is working with CDOT on an implementation plan.

Currently, Peoples Gas is working with CDOT on an implementation plan.

Currently, Peoples Gas is working with CDOT on an implementation plan.

Description
These are user inputs that have an effect on multiple CDOT items. Changes in this sheet

PGL Information	2013	2014	2015
Capital Total Permits	2199	2199	2199
Capital Street/Alley Permits	1148	1148	1148
Capital SW/PW Pemits	1051	1051	1051
Capital Arterial Street Permits	258.36	258.36	258.36
Average Address Span/Capital Permit	6.84	6.84	6.84
Footage Per Address Number Increment	6.06	6.06	6.06
Capital Pipe Retired (mi)	17.26	17.26	17.26
Capital Repairs	2173	2173	2173
Capital Street/Alley Repairs	796	796	796
Capital SW&PW Repairs	1377	1377	1377
Capital Repair Area (yd^2)	65227	65227	65227
Capital Street/Alley Area (yd^2)	45301	45301	45301
Capital SW&PW Area (yd^2)	19926	19926	19926
Maintenance Total Permits	9806	9806	9806
Maintenance Street/Alley Permits	5382	5382	5382
Maintenance SW/PW Pemits	4424	4424	4424
Maintenance Arterial Street Permits	1211.25	1211.25	1211.25
Average Address Span/Maintenance Perr	8.49	8.49	8.49
Footage Per Address Number Increment	6.06	6.06	6.06
Maintenance Repairs	4969	4969	4969
Maintenance Street/Alley Repairs	1495	1495	1495
Maintenance SW&PW Repairs	3474	3474	3474
Maintenance Repair Area (yd^2)	146833	146833	146833
Maintenance Street/Alley Area (yd^2)	105302	105302	105302
Maintenance SW&PW Area (yd^2)	41531	41531	41531
Average Restoration Width (ft)	14	14	14

City Information	2013	2014	2015
Arterial Streets (mi)	896.6	896.6	896.6
Residential Streets (mi)	3087.3	3087.3	3087.3
%Arterial	0.23	0.23	0.23
%Residential	0.77	0.77	0.77
Bike Lanes (mi)	170	204	244.8
% Bike Lanes/Arterial	0.19	0.23	0.27
Moratorium 0-24 mo (mi)	632.9	632.9	632.9
Moratorium 24-60 mo (mi)	941.4	941.4	941.4
Moratorium 60+ mo (mi)	496.7	496.7	496.7
%Moratorium of ALL Streets	0.52	0.52	0.52
Arterial Pavement Width (ft)	45	45	45
Residential Pavement Width (ft)	30	30	30
Street Length (ft)	600	600	600
Street ROW (ft)	66	66	66

Mult Issue Material Costs	2013
Asphalt Cost/yd^2	$53.42
FA22 Backfill Cost/yd^3	$31.50
CA13 Backfill Cost/yd^3	$31.50
CA16 Backfill Cost/yd^3	$31.50
FA02 Backfill Cost/yd^3	$24.30

will be refelected in the appropriate sheets of each issue.

Legend

<= This is a formula based field
<= This is a user editable field
<= This is a referenced field from elsewhere in this workbook

Assumptions

* 1 opening per permit ordered (standard practice for nonAMRP work)
* Street/Alley and SW&PW ratios of permits and their address ranges will be similar to those in 2012
* Street/Alley and SW&PW ratios of openings and area will be similar to those in 2012
* The actual footage per address number is approximately 6' (600'/99 addresses)
* Moratorium affected blocks will have a ratio similar to the (moratorium mileage)/(Chicago street mileage)
* Bike lane mileage will increase by 20% annually
* Bike lanes only exist on arterial streets
* Any service openings costs will be included in the main installation costs
* All services beyond 2012 will be directionally drilled based on approval bore camera intiative (if not long sided)
* While the contractor could have resused spoil, it appears that they typically backfilled with sand
* Average restoration width (14') provided by Contract Administration
* Mileage of capital projects calculated using the average address span of a 2012 capital pemit mutiplied by the average footage of an address increment (since there is typically one pipe to retire in a block)

Sources

* Total and Street/SW&PW Permits ratios, average address lengths, and forecast based on 9/23/2011-10/1/2012 Received Permits (with Capital WR types indicated) from Centralized Planning Group

Category	Permit Type	unt of Permits
Capital	ALLEY	34
Capital	PRKWY	849
Capital	STREE	1114
Capital	SW&PW	2
Capital	SWPW	200
Maintenance	ALLEY	139
Maintenance	PRKWY	2884
Maintenance	STREE	5243
Maintenance	SW&PW	10
Maintenance	SWPW	1530

Capital WR Types

GMEXP	NSDM
GMRCI	PREXT
GMREP	SVRC
MSVNX	SVRCI
MSVXC	SVRN
NSAC	SVRP
NSACM	SVUPG
NSD	

Category	Avg of AddrLen
Capital	6.84
Maintenance	8.49

* Asphalt costs for nonAMRP work provided by Contract Administration
* Repair information (count, area, etc) from exrapolated 2012 data from WMIS repairs database (based on data from 9/20/2012) from Contract Administration

Driver	LOCATION	Count
Capital	Alley	2
Capital	Parkway	933
Capital	Sidewalk	444
Capital	Street	794
Maintenace	Alley	8
Maintenace	Parkway	1921
Maintenace	Sidewalk	1553
Maintenace	Street	1487

Driver	LOCATION	tal Area (yd^2)
Capital	Alley	90.28
Capital	Parkway	15041.94
Capital	Sidewalk	4934.17
Capital	Street	45210.97
Maintenace	Alley	677.64
Maintenace	Parkway	28998.61
Maintenace	Sidewalk	12532.64
Maintenace	Street	104623.89

* Arterial/residential street breakdown from GIS layer

	Layer Formula	ft	mi	%
Arterial	Class_2 + Class_3	4,734,125	896.6146	0.23
Residential	Class_4	16,300,764	3087.266	0.77

* Moratoium breakdown based from GIS layer (from CDOT extract in July, 2012 as provided by GIS team)

Timeframe	ft	mi
0 - 24	3,341,475	632.86
24 - 60	4,970,756	941.43
60+	2,622,758	496.73

* Miles of Bike Lanes based on rough estimate from: http://www.cityofchicago.org/city/en/depts/cdot/provdrs/bike.html
* Street widths and lengths based on generalization of streets around Portage Park neighborhood
* Backfill material costs from Change Order manager
* Half/Quarter Point percentages based on street main installation breakdown, with the logic that <=6" pipe can be installed in the Quarter point section and anything larger in the Half poin

Diameter	Street Install (ft)
18"	18259
12"	48056
8"	10392
6"	12044
4"	31940
2"	45892

Quarter%	Half%
0.54	0.46

* CDOT indicates that the plan is to install 35 miles of new bike lanes next year (~20% increase)

Description:
Degradation Fee doubles permit fee for work in Moratorium street

Degradation Fee

F = P x (OL/200) x BR

BR = Base rate (set by City Council or Rules & Regs) of $1000
OL = Overall Length (set to 200 for all cuts)

Age of Street (yrs)	0-2	Greater than 2 to 5
P	5	2.5

Maintenance Permits w/ Degradation Fee

	2013	2014	2015
Street Permits	5382	5382	5382
0-24 mo in street (permits):	855	855	855
25-60 mo in street (permits):	1272	1272	1272
Degradation Costs	*$7,454,473*	*$7,454,473*	*$7,454,473*
Additional Costs (Maintenance)	***$7,454,473***	***$7,454,473***	***$7,454,473***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenac	*$7,454,473*	*$7,454,473*	*$7,454,473*

Annual Cost Increase

0

Assumptions

* There will be 1 opening per permit
* Assume that the the base rate is static at $1000 across the years

Sources

* Appendix F - 2012 CDOT Regulations

Description:
Parking fee for payboxes

Maintenance Pay Box Cost

	2012	2013	2014
Daily Parking Rate:	$ 22.75	$ 23.89	$ 25.08
# of Parking spots/Maintenance	4	4	4
Daily Rate/Maintenance:	$ 91	$ 96	$ 100
Weekly Rate/Maintenance:	$ 637	$ 669	$ 702
Average conflict duration (weeks):	0.8	0.8	0.8
Average conflict $/Maintenance:	$510	$535	$562
Permits for Maintenance Work on Arterial Street:		1211	1211
Maintenance Additional Cost		***$648,116***	***$680,522***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenac	*$648,116*	*$680,522*	*$714,548*

2015
$ 26.34
4
$ 105
$ 737
0.8
$590
1211
$714,548

Annual Cost Increase

1.05

Assumptions

* Parking Rate based on $1.75/hr, 8 AM - 9PM
* 5% cost increase annually

* The current method had us pay only when requested by the city (YTD 9/28/2012 has costs for pay boxes at $12,000) and was not included in analysis
* Pay boxes are on all arterial streets

Sources

* Cost of signs provided by Customer Communications team
* Parking Rate costs based on website: http://chicagometers.com/
*Capital Conflict duration and number of parking spots impacted based on typical work impact from Centralized Planning Group

Days Impacte	Work	Notes
0	DIGGER Locate	Allow 48 hrs for locates, but shouldn't impace
2	nonAMRP work	
7	Restoration	
9	*Total Work Days*	
1.8	**Affected Weeks**	

* Maintenance Conflict duration and number of parking spots impacted based on typical work impact from Centralized Planning Group

Days Impacte	Work	Notes
0	DIGGER Locate	Allow 48 hrs for locates, but shouldn't impace
2	nonAMRP work	
2	Restoration	
4	*Total Work Days*	
0.8	**Affected Weeks**	

Description

"Project Signs" are required at the beginning and end of all work areas

Maintenance - Project signs at all work areas:

	2012	2013	2014
Cost/Sign:	$50.00	$52.50	$55.13
Signs/Crew:	3	3	3
Signs Replaced/Crew:	2	2	2
Signs Purch (NewCrew) (yearly):	0	123	0
Signs Purch (Replace) (yearly):	0	0	82
Total Signs Carried Over:	0	0	41
Total Signs:	0	123	123
# Crews:	0	41	41
Overall Cost	***$0***	***$6,458***	***$4,520***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenac	*$6,458*	*$4,520*	*$4,746*

2015
$57.88
3
2
0
82
41
123
41
$4,746

Annual Increase
1.05

Assumptions

* 3 signs per block (2/block + 1 extra)
* 5% cost increase annually
* A crew will work on 1 block at a time
* Crew quantities will remain constant from year to year
* 2 signs per block replaced anually due to theft or damage

Sources

* Cost of signs provided by Customer Communications team
* Crew amounts provided by Supervisory Engineers: North Shop (17 Cap, 34 Maint), Central Shop (21 Cap, 5 Maint), (5 Cap, 2 Maint)

Description
All utility hits investigated by a 3rd party and paid for by utility at fault

Maintenance - Investigation of 3rd Party Hits by PGL

	2012	2013	2014
# of PGL hits on others (yearly):	43	43	43
# of hits on PGL with PGL at fault (yearly):	451	451	451
Avg Investigation cost	$400.00	$420.00	$441.00
Total Cost to investigate:	$197,600.00	$207,480.00	$217,854.00
Overall Cost	***$197,600***	***$207,480***	***$217,854***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$207,480*	*$217,854*	*$228,747*

Annual Increase

1.05

2015
43
451
$463.05
$228,746.70
$228,747

Assumptions

* Typical cost of utility hit investigation between $250-$500

* 5% cost increase annually
* Previous years only labor and material costs charged
* Hit amounts per year will stay similar to 2012

Sources

* Number of PGL hits provided by Engineering
* Average investigation cost provided by Claims manager

Description

The new regulations dictate suitable backfill material for openings.

Maintenance - New Backfill

	2013	2014	2015
Open Cut Openings (yd^2)	21000	21000	21000
Typical Opening Depth (ft)	4	4	4
Backfill Amount (yd^3)	28000	28000	28000
FA22 Backfill Cost/yd^3	$31.50	$33.08	$34.73
CA13 Backfill Cost/yd^3	$31.50	$33.08	$34.73
CA16 Backfill Cost/yd^3	$31.50	$33.08	$34.73
Backfill Cost/yd^3	$31.50	$33.08	$34.73
Overall Cost	*$882,000*	*$926,100*	*$972,405*

Maintenance - Spoil Haul

	2013	2014	2015
SW/PW Opening Area (yd^2)	7962	7962	7962
Typical Opening Depth (ft)	4	4	4
Spoil Amount (yd^3)	28000	28000	28000
Truck Cost/Load	$300.00	$315.00	$330.75
Truck Capacity (yd^3)	9	9	9
Overal Cost	*$933,333*	*$980,000*	*$1,029,000*

Maintenance Overall Costs	*$1,815,333*	*$1,906,100*	*$2,001,405*

Maintenance - Current Methods

	2013	2014	2015
Street Cut Openings (yd^2)	13038	13038	13038
Typical Opening Depth (ft)	4	4	4
Backfill Amount (yd^3)	17384	17384	17384
FA02 Backfill Cost/yd^3	$24.30	$25.52	$26.79
Maintenance Overall Cost	*$422,431*	*$443,553*	*$465,730*

Additional Costs (Maintenance)	***$1,392,902***	***$1,462,547***	***$1,535,675***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$1,392,902*	*$1,462,547*	*$1,535,675*

Annual Increase
1.05

Assumptions

* Average Trench Depth will 4'
* 5% material cost increase annually
* Least expensive new backfill material will be chosen
* For Current Methods, only street installation should count since sidewalk/parkway resused spoil for maintenance
* Assume square yardage of opening will be similar as 2012 data
* Spoil Haul Costs only apply to Maintenance since PGL crews used to reuse spoil while Contractor crews h
* Openings used instead of repair since repairs tend to involve more area than the actual backfilled amoun

Sources

* 6-wheel truck load costs and capacities provided by Change Order manager (Typically $150 per load for r
* Opening information (count, area, etc) from exrapolated 2012 data from WMIS openings database (base

Driver	Location	Total Area (yd^2)
Capital	Alley	161.67
Capital	Parkway	5328.75
Capital	Street	3885.97
Maintenace	Alley	315.83
Maintenace	Parkway	7962.36
Maintenace	Street	12721.81

ave already been hauling spoil in 2012
t

ental, doubled to include driver and fuel costs)
d on data from 9/20/2012) from Contract Administration

Description

The new regulations dictate that if cuts are made within 150' of eachother within 6 months, at least a quarter point(if not more) will be restored the entire block

Maintenance - New Street Work

	2013	2014
Street/Alley Repair Count	1495	1495
Reg Applicable Repair Instances	149	149
Avg Repair Restoration Width (ft)	14	14
Area to Restore (yd^2)	233.33	233.33
Asphalt Cost/yd^2	$53.42	$56.09
Overall Cost	*$1,857,235*	*$1,950,097*

Maintenance - Current Street Method

	2013	2014
Street/Alley Area (yd^2)	105302	105302
Reg Applicable Area (yd^2)	4226.17	4226.17
Asphalt Cost/yd^2	$53.42	$56.09
Overall Cost	*$225,762*	*$237,050*

Additional Costs (Maintenance)	***$1,631,473***	***$1,713,047***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$1,631,473*	*$1,713,047*	*$1,798,700*

Annual Increase

1.05

Assumptions

* 150' occurances will continue at 2012 ratios (Capital: 60 instances out of 1060 street openings, Maint: 149 instances out of 3856 street openings)
* Analysis should omit moratorium blocks since they will be completely restored
* 5% material cost increase annually
* There is no difference between old and new regulations for arterial intersections (if installed in street, then we needed to restore intersection)
* Average restoration width is 14' (per spec to restor to the joint)
* Intersections omitted from analysis since there was no reliable way to identified those affected
* If an instance of this regulaton came into play, there would be 150' length of restoration per instance
* For current methods, use the percentage of applicable openings to determine the amount of applicable repair area

2015
1495
149
14
233.33
$58.90
$2,047,602

Sources

* 150' applicable instances identified and provided by Contract Administration

2015
105302
4226.17
$58.90
$248,902

$1,798,700

Description

The new regulations dictate that new "Abbey Road" crosswalks need to be used with thermoplastic materials and that bike lanes symbols need to be replaced.

Maintenance - Abbey Road Crosswalk

	2013	2014	2015
Street Intersections	1238	1238	1238
PW/SW Intersections	440	440	440
Cost/Thermal Crosswalk	$480	$504	$529
Overall Costs	*$1,399,680*	*$1,469,664*	*$1,543,147*

Maintenance - Bike Lanes (Thermal)

	2013	2014	2015
Street Affected (mi)	95.56	95.56	95.56
Arterial Street Affected (mi)	21.51	21.51	21.51
Bike Lane/Arterial Ratio	0.19	0.23	0.27
Regulation Applicable (ft)	21530.60	25836.72	31004.06
Street Length (ft)	600	600	600
Regulation Applicable (blocks)	35.88	43.06	51.67
Bike Lane Symbol Cost/Block	$5,370.00	$5,638.50	$5,920.43
Overall Costs	*$192,699*	*$242,801*	*$305,929*
Maintenance New Overal Costs	*$1,592,379*	*$1,712,465*	*$1,849,076*

Maintenance - Current Crosswalk

	2013	2014	2015
Street Intersections	1238	1238	1238
PW/SW Intersections	440	440	440
Cost/Thermal Crosswalk	$150.00	$157.50	$165.38
Overall Costs	*$437,400*	*$459,270*	*$482,234*

Maintenance - Bike Lanes (Current)

	2013	2014	2015
Length of Street Affected (mi)	95.56	95.56	95.56
Arterial Street Affected (mi)	21.51	21.51	21.51
Bike Lane/Arterial Ratio	0.19	0.23	0.27
Regulation Applicable (ft)	21530.60	25836.72	31004.06
Street Length (ft)	600	600	600
Regulation Applicable (blocks)	35.88	43.06	51.67
Bike Lane Symbol Cost/Block	$3,600.00	$3,780.00	$3,969.00
Overall Costs	*$129,184*	*$162,771*	*$205,092*
Maintenance Current Overal Costs	*$566,584*	*$622,041*	*$687,325*

Additional Costs (Maintenance)	***$1,025,795***	***$1,090,423***	***$1,161,751***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$1,025,795*	*$1,090,423*	*$1,161,751*

Annual Increase

1.05

Assumptions

* 5% material increase annually
* Average crossing is 36', which is what the crossing costs exemplify
* Intersections are identified by the "to" or "from" address on the permit as having a "00" or "99"
* There will be 2 affected crosswalks per street permit intersection, and 1 crosswalk per SW/PW permit intersection

Sources

* Bikelane and crosswalk costs provided by Change Order manager
* Intersections based on 9/23/2011-10/1/2012 Received Permits (with Capital WR types indicated) from Centralized Planning Group

Category	Permit Type	Sum of Intersections
Capital	ALLEY	4
Capital	PRKWY	27
Capital	STREE	171
Capital	SW&PW	0
Capital	SWPW	5
Maintenance	ALLEY	12
Maintenance	PRKWY	267
Maintenance	STREE	1238
Maintenance	SW&PW	4

Description

The new regulations dictate that patching will require hot poured sealant around all utility cuts.

Maintenance - Patch Sealing

	2013	2014	2015
Street/Alley Repair Perimeter (ft)	191583	191583	191583
Sealant Cost/ft	$5.00	$5.25	$5.51
Overall Costs	*$957,915*	*$1,005,811*	*$1,055,622*

Additional Costs (Maintenance)	***$957,915***	***$1,005,811***	***$1,055,622***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$957,915*	*$1,005,811*	*$1,055,622*

Annual Increase

1.05

Assumptions

* 5% material increase annually
* Current methods don't utilize any form of sealant for patchwork
* Incorporates the additional permiter from the new 3' to 5' overlap rule

Sources

* Sealant costs provided by Change Order Manager
* Perimeter of repairs (with 5' overlap) from extrapolated 2012 data from WMIS repairs database (based on data from 9/20/2012) from Contract Administration

Driver	LOCATION	Perimeter (ft))
Capital	Alley	205
Capital	Parkway	58742.5
Capital	Sidewalk	24400
Capital	Street	85380
Maintenace	Alley	1142.5
Maintenace	Parkway	116670
Maintenace	Sidewalk	74180
Maintenace	Street	190440

Description

The new regulations dictate that the asphalt restoration overlap will increase to 5' from 3'.

Maintenance - Extra Overlap

	2013	2014	2015
Additional Restoration (yd^2)	11377	11377	11377
Asphalt Cost/yd^2	$53.42	$56.09	$58.90
Maintenance Overall Costs	*$607,759*	*$638,147*	*$670,055*

Additional Costs (Maintenance)	***$607,759***	***$638,147***	***$670,055***

SUMMARY OF ADDITIONAL COSTS

	2013	2014	2015
Maintenace	*$607,759*	*$638,147*	*$670,055*

Annual Increase

1.05

Assumptions

* 5% material increase annually
* 4' additional restoration on per opening (2' extra on each side)

Sources

* Area of additional asphalt repair from extrapolated 2012 data from WMIS repairs database (based on data from 9/20/2012) from Contract Administration

Driver	LOCATION	Total Area (yd^2)
Capital	Alley	16.11111111
Capital	Parkway	4501.111111
Capital	Sidewalk	1497.777778
Capital	Street	5739.444444
Maintenace	Alley	61.11111111
Maintenace	Parkway	8823.333333
Maintenace	Sidewalk	4965.555556
Maintenace	Street	11315.55556

Code Reference	Code Desicription	MAINTENANCE 2013
3B1/Appendix F	Degradation Fee impact on overall permit fee (Moratorium Street)	$7,454,473
3B.12	Parking fee for payboxes	$648,116
3B.13	Cost for Project Signs	$6,458
3C.1.1	Cost to investigate third party hits	$207,480
5A	Trench Backfill if less than 4 'wide: FA22, CA13 or 16, Flowable Backfill; 4' or more wide: FA6 or 22, CA6, 11, 13 or 16, Flowable Backfill	$1,392,902
6C	Utility cut patches-150 feet or less apart or placed within 6 months- all to be included in resurfacing quarter or more of roadway section	$1,631,473
6C.8	New 'Abbey Road' bar crosswalks, bike lane symbols & markings, required. All in thermoplastic material, not paint. Entire crosswalk/intersection impacted needs to be restored. Not just impacted area.	$1,025,795
6C.10	Hot Poured Joint Sealant' -full perimeter-all private utility cuts	$957,915
Appendix A	Change restoration extension of openings from 3' overlap to 5' overlap	$607,759
	Total Cost/Year	**$13,932,372**

ICC Docket No. 12-0512
The Peoples Gas Light and Coke Company's Response to
Attorney General Data Requests AG 10.01-10.36
Dated: October 26, 2012

REQUEST NO. AG 10.30:

Ref: NS-PGL Ex. 20.1 (CDOT Regulation Costs). In NS-PGL Ex. 20.1, the estimated test year expense impact of changes in Chicago Department of Transportation regulations are described and quantified within eight separate categories of code changes. Please provide the following additional information associated with these changes and costs:

a. Citation to any additional exhibits or workpapers that have been provided by the Company to support the estimated $13.9 million of new Maintenance expenses being added into the PGL asserted revenue requirement, as a result of CDOT regulation changes.
b. Complete copies of all reports, studies, analyses, workpapers, projections and other documents prepared by or for the Company to evaluate the impact of the referenced CDOT changes, including but not limited to the work done in development of NS-PGL Ex. 20.1.
c. State each of the assumptions made and provide quantity times price calculations supportive of each of the line item cost estimates in NS-PGL Ex. 20.1.
d. With respect to the quantities used in your response to part (c), provide historical actual statistics regarding street cuts, patches, crosswalks and other activities that are comparable to amounts used in test year estimates for recent prior years, indicating whether and how such information is believed to be supportive of estimated test year costs.
e. With respect to unit prices used in development of NS-PGL Ex. 20.1, provide complete copies of all requests for proposals, bid solicitations, vendor quotations, bids, service contract documents and other documentation associated with or supportive of the proposed unit costs for incremental work required under the revised CDOT regulations.
f. If no documents are provided in your response to part (e), explain how prices for materials or contractor services were estimated and provide copies of all documents supportive of such estimates.
g. Are any of the incremental costs within NS-PGL Ex. 20.1 labor or benefit expenses associated with work done by Company employees?
h. If your response to part (g) is affirmative, provide a detailed statement of assumptions and calculations supportive of each element of labor/benefit expense included in each line of NS-PGL Ex. 20.1.
i. For what reasons would the new costs of compliance with CDOT regulations not be recordable primarily as additional capitalized costs associated with

replacement of utility plant in service? Provide copies of accounting authority relied upon for your response.

RESPONSE:

a. See Peoples Gas response to AG 10.29, Attachment 4 is a complete breakdown of all regulations affecting maintenance expenses as a result of the new CDOT regulation changes. Included are the following:
    a. General Maintenance Inputs tab – All assumptions globally applicable to each itemized breakdown, all calculations and data globally applicable to each itemized breakdown, PGL historical data based on permits received from 9/23/11 – 10/1/12, Maintenance data from 1/1/11 – 9/20/12, moratorium and city street breakdown based on CDOT extract from July 2012.
    b. Degradation tab – Degradation fee calculation for maintenance based on number of street permits multiplied by the ratio of degradation streets to total city streets. Degradation assumptions listed.
    c. Paybox tab – Pay box cost for maintenance based on City of Chicago parking rates and typical construction duration.
    d. Project Signs tab – Project sign cost and specific assumptions listed.
    e. 3rd Party Investigation tab – Third party utility investigation cost based on 2012 utility hit data.
    f. Backfill Material tab – New backfill material cost for maintenance based on 2012 openings data and new backfill cost. Additional assumptions listed.
    g. 150' Rule tab– Restoration in areas where street cuts are made within 150 feet of each other based on 2012 repair data. Additional assumptions listed.
    h. Thermoplastic tab – Abbey Road crosswalks and bike lines based on permit data and city bike line data.
    i. Sealant tab – Hot poured sealant poured around all utility cuts based on extrapolated 2012 repairs data using total perimeter of repair work.
    j. 5' Overlap – Asphalt restoration overlap increased from 3 feet to 5 feet, maintenance calculations based on 2012 repair data.
b. See Attachment 4 from AG 10.29.
c. Assumptions used across all calculations can be found in Peoples Gas response to AG 10.29, Attachment 4 – General Maintenance Inputs tab. Assumptions for individual line item can be found on its respective tab in Attachment 4 of Peoples Gas response to AG 10.29.
d. Statistical quantities for all maintenance work can be found in Peoples Gas response to AG 10.29, Attachment 4 – General Maintenance Inputs tab. Projections for 2013 maintenance costs are based on 2012 actual statistics.
e. Material costs associated with individual item calculations can be found in the following attachments:
    a. FA02 backfill material cost: PGL AG 10.30 Attachment 1
    b. Construction sign cost: PGL AG 10.30 Attachment 2 (invoice is for 85 signs additional orders were billed at the same price)
    c. Thermoplastic stripping cost: PGL AG 10.30 Attachment 3

ICC Docket No. 12-0512
The Peoples Gas Light and Coke Company's Response to
Attorney General Data Requests AG 10.01-10.36
Dated: October 26, 2012

   d. Parking Rates: http://chicagometers.com/

f. See PGL AG 10.30 Attachment 4 for material costs estimates including:
   a. New backfill material pricing
   b. Bike lane symbols
   c. Sealant cost

   Additional unit price costs used in estimates taken from IDOT pay item report: http://www.dot.il.gov/desenv/payitems.html

g. No, incremental costs for labor or benefit expenses were not taken into account in the analysis

h. N/A

i. See the Illinois Commerce Commission's Uniform System of Accounts for Gas Utilities Operating in Illinois as applicable to Peoples Gas. Complete Report can be found at: http://www.icc.illinois.gov/publicutility/usoa.aspx

PUBLIC

PGL AG 10.30 Attach 01

DOCUMENTS ARE CONFIDENTIAL
AND PROVIDED UNDER SEPARATE COVER

PUBLIC

PGL AG 10.30 Attach 02

DOCUMENTS ARE CONFIDENTIAL
AND PROVIDED UNDER SEPARATE COVER

PUBLIC

PGL AG 10.30 Attach 03

DOCUMENTS ARE CONFIDENTIAL
AND PROVIDED UNDER SEPARATE COVER

PUBLIC

PGL AG 10.30 Attach 04

DOCUMENTS ARE CONFIDENTIAL
AND PROVIDED UNDER SEPARATE COVER

ICC Docket No. 12-0512
The Peoples Gas Light and Coke Company's Response to
CUB Data Requests CUB 5.01 – 5.06
Dated: November 9, 2012

REQUEST NO. CUB 5.06:

CDOT charges.

a. Provide all communications between The Peoples Gas and Coke Company and the City of Chicago concerning the CDOT charges that the Company has incurred in 2012 or expects to incur in 2013.

b. Provide the invoices for CDOT charges to The Peoples Gas and Coke Company for each month of 2012.

c. Show in detail, by account, by month for 2011 and 2012, the CDOT charges that were recorded by The Peoples Gas and Coke Company.

d. If CDOT charges are incurred in conjunction with a construction project would those be capitalized as part of the cost of the construction project?

   i. If not, explain fully why not.

RESPONSE:

a. CUB 5.06 Attachment 1 is the initial communication between PGL and Commissioner Klein of CDOT sent September 4, 2012. CUB 5.06 Attachment 2 is the follow up communication with Commissioner Klein sent November 14, 2012 for further clarification of CDOT regulations. Also included in CUB 5.06 Attachment 2 are summary of additional costs due to CDOT Regulation changes and specific clarification questions sent to CDOT.

b. Peoples Gas notes that the CDOT regulation became effective in July 2012. See Attachment 3 of PGL AG 10.29 for itemized 2012 costs. In terms of invoices, the listed degradation fees are shown in CUB 5.06 attachments 5a-5d. Parking fees due to payboxes can be also be found from permits and are attached as CUB 5.06 attachments 4a-4c. The restoration overlap charges do not have individual invoices and were calculated from the increased size of paved openings.

c. See CUB 5.06 Attachment 3 for cost breakdown by month of city of Chicago invoices to PGL for 2011 and 2012.

d. Changes in the CDOT Regulations will affect both Capital costs and Operating & Maintenance ("O&M") expenses incurred by Peoples Gas. O&M expenses included in Peoples Gas' analysis of the new CDOT Regulations do not qualify to be capitalized based on the Illinois Commerce Commission's Uniform System of Accounts for Gas Utilities Operating in Illinois. Complete Report can be found at: http://www.icc.illinois.gov/publicutility/usoa.aspx

PEOPLES GAS
NATURAL GAS DELIVERY

130 East Randolph Drive
Chicago, IL 60601-6207
www.peoplesgasdelivery.com

September 4, 2012

Gabe Klein, Commissioner
Chicago Department of Transportation
30 North LaSalle Street, Suite 1100
Chicago, IL 60602

Re: CDOT July 12, 2012 Response to Peoples Gas Comments Concerning CDOT's Regulations for Openings, Construction and Repair in the Public Way

Dear Commissioner Klein:

This letter is in regards to revisions made to CDOT's Regulations for Openings, Construction and Repair in the Public Way discussed in your letter to me dated July 12, 2012. We acknowledge and appreciate that CDOT made modifications to the regulations based on comments submitted by Peoples Gas.

The updated regulation contains more than 200 pages that directly affect our daily planning and construction activities. Our understanding is that the new regulations are now in effect. Since Peoples Gas was not provided a tracked version of the adopted rules, a manual review is being undertaken. Importantly, in our initial review Peoples Gas has discovered that the final rule has changes that were not included in the proposed rule. One such noteworthy change is in Section 6C, Street Pavements under Pavement Restoration. In your letter at page 2 you cite the four months period concerning multiple openings. Although that was the proposed period in the draft rule, the final rule at page 40 has extended the penalty period from four months to six months.

To ensure full compliance with the new regulations, Peoples Gas and its contractors must perform a thorough review and assessment including changes to the final rule not addressed in the proposed rule, update People Gas policies and procedures, educate our staffs, and communicate the changes to our employees and contractors. Because of this significant undertaking, Peoples Gas requests that CDOT: 1) grant Peoples Gas a grace period of six months for implementing the revisions; and 2) provide Peoples Gas and our contractors a workshop to fully understand all of the changes made to the regulations

I hope that we can continue to discuss the revised CDOT rules in the future. I would like to meet with you at your earliest convenience to discuss this request including additional items that Peoples Gas feels need clarification. I can be contacted at 312-240-4417 and wsevans@integrysgroup.com. Thank you for your attention and consideration. I look forward to hearing from you.

Sincerely,

Willard S. Evans, Jr.
President

cc: Pat Harney, First Deputy Commissioner, CDOT
Juan Santiago, Team Leader - Special Projects AMRP

CHICAGO DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO

July 12, 2012

Willard S. Evans, Jr.
President
The Peoples Gas Light and Coke Company
130 East Randolph Street
Chicago, Illinois 60601-6207

Re: Peoples Gas Response to Promulgated CDOT Regulations and Standards, 2012

Dear Mr. Evans:

This letter is in response to your comments provided to The Chicago Department of Transportation (CDOT) on April 26, 2012. Thank you for your contribution to making CDOT's Regulations and Standards, 2012, a more user friendly, more comprehensible, guiding document by which to restore our city's streets and public way after construction.

In response to your comments, CDOT addresses various issues as follows:

1. CDOT accedes to your request for grammatical changes and streamlining the use of terms already provided in the definitions in the new text.

2. CDOT has provided clarity on the use of excavated materials as backfill in the newest version of the Regulations and Standards (p. 34).

3. CDOT has provided more specificity on the use of flowable fill in the Central Business District and outlying areas citywide (p. 34).

4. CDOT included the Streetscape Restoration Agreement you referred to as an appendix item in the Regulations and Standards (p. 22, Appendix H). We streamlined the uses of restoration agreements for specific purposes (p. 21).

There are numerous other minor modifications that we have made that clarify passages you refer to in your document that relate to abandoned facilities (p. 34), "as-built" drawings (p. 23), and definition of emergency (p. 3).

Permit fees for obstructing the public way have always been in CDOT's Regulations and Standards, this issue of the Regulations merely emphasizes the importance of the tool to effectively manage, with minimal disruption, the public's space (p. 22).