

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

THE PEOPLES GAS LIGHT	:	
AND COKE COMPANY	:	
	:	No. 09-_____
Proposed General Increase	:	
In Rates For Gas Service	:	

Direct Testimony of  
**EDWARD DOERK**  
Vice President, Gas Operations  
The Peoples Gas Light and Coke Company  
and  
North Shore Gas Company

On Behalf of  
The Peoples Gas Light and Coke Company

February 13, 2009

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND BACKGROUND	1
A. Identification of Witness	1
B. Purpose of Testimony	1
C. Summary of Conclusions	2
D. Itemized Attachments to Direct Testimony	3
E. Background And Experience	3
II. PEOPLES GAS' PHYSICAL SYSTEM	3
A. Gross Utility Plant	4
B. Cost Control and Investment	7
III. SUMMARY OF MAJOR CAPITAL PROJECTS	8
IV. TEST YEAR RATE BASE ADDITIONS	16
V. ICC MANDATED PIPELINE SAFETY AUDIT	17

1 **I. INTRODUCTION AND BACKGROUND**

2 **A. Identification Of Witness**

3 Q. Please state your name and business address.

4 A. Edward Doerk. 1241 W. Division St., Chicago, IL 60642.

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by The Peoples Gas Light and Coke Company (“Peoples Gas”). My  
7 current title is Vice President, Gas Operations, for both Peoples Gas and North Shore Gas  
8 Company (“North Shore”).

9 **B. Purpose Of Testimony**

10 Q. What is the purpose of your direct testimony in this proceeding?

11 A. The purpose of my testimony, in brief, is, first, to describe Peoples Gas’ physical system  
12 and operations and the manner in which Peoples Gas ensures that its capital expenditures  
13 relating to its physical system are prudently incurred. As part of this discussion, I  
14 describe the key components of Gross Utility Plant included in rate base. I also confirm  
15 that the Gross Utility Plant assets included in rate base, including assets added since the  
16 last general rate case, ICC Docket Nos. 07-0241/07-0242 (cons.), are used and useful and  
17 were prudently acquired and placed into service at a reasonable cost, other than for  
18 Underground Storage, Liquefied Natural Gas Plant and Recoverable Natural Gas, which  
19 are addressed by Mr. Puracchio, and Intangible Plant, Production Plant, and Construction  
20 Work in Progress (“CWIP”) which is addressed by Mr. Hengtgen. As part of this  
21 discussion, I will describe Peoples Gas’ present low pressure system, and our efforts to  
22 replace it.

23                   Second, I present support for Peoples Gas’ major capital projects from the year  
24 2007 through the test year, 2010. These major projects are: the Cast and Ductile Iron  
25 Pipe Replacement project, and the North Avenue Bridge tunnel-shaft reconstruction and  
26 2-36” main relocations. I address whether these investments have been prudently  
27 undertaken, are reasonable in cost, and are used and useful in providing utility service. A  
28 third project, the Gathering System Pipe Replacement Project at Manlove Field, is  
29 addressed by Mr. Puracchio.

30                   Third, I describe how Peoples Gas determined the amount for rate base additions  
31 for Distribution, Transmission – Not Leased, and General Plant for the test year.

32                   Fourth, I address the major findings of the ICC mandated pipeline safety audit.

33                   Finally, I provide testimony demonstrating that Peoples Gas is complying with  
34 Condition 22 of Appendix A to the Illinois Commerce Commission’s (the “Commission”  
35 or “ICC”) final Order in ICC Docket No. 06-0540.

36                   **C.     Summary Of Conclusions**

37                   Q.     Please summarize the conclusions you make in your direct testimony.

38                   A.     I conclude that the two projects I discuss in my testimony, the North Avenue bridge  
39 public improvement project and the Cast Iron and Ductile Iron Pipe Replacement Project,  
40 were prudently undertaken, reasonable in cost, and are used and useful in providing  
41 utility services to customers served by Peoples Gas.

42                   As to Gross Utility Plant, other than Intangible Plant, LNG Plant, Recoverable  
43 Natural Gas, and Underground Storage, I also conclude that all of Peoples Gas’  
44 properties recorded in its property accounts, including assets added since the 2006 Rate

45 Case, were prudently acquired, reasonable in cost, and used and useful in rendering of  
46 utility service.

47 Finally, I conclude that customers would benefit from the elimination of Peoples  
48 Gas' cast iron low pressure system. This would enhance the safety, reliability, and cost  
49 effectiveness of Peoples Gas' system overall.

50 **D. Itemized Attachments to Direct Testimony**

51 Q. Are there any attachments to your testimony?

52 A. Yes. Peoples Gas Exhibit ("Ex.") ED-1.1 is a copy of Schedule F-4 of Peoples' Gas  
53 required filings, showing major additions to capital.

54 **E. Background And Experience**

55 Q. Please summarize your educational background and experience.

56 A. I graduated from Bradley University in 1978 with a Bachelor of Science in Mechanical  
57 Engineering. I have worked for Peoples Energy Corporation ("Peoples Energy") and its  
58 utility subsidiaries for the past 30 years and have held many positions with increasing  
59 responsibility within gas operations. Prior to my current position, I was Vice President of  
60 North Shore. I assumed my current position in October of 2004.

61 Q. What are your responsibilities in your current position?

62 A. I am responsible for all gas distribution utility field operations including customer  
63 service, distribution system maintenance, and construction.

64 **II. PEOPLES GAS' PHYSICAL SYSTEM**

65 Q. Please describe Peoples Gas' physical system.

66 A. Peoples Gas is a local distribution company selling and/or distributing gas to  
67 approximately 850,000 customers in the City of Chicago. Peoples Gas' distribution  
68 system consists of approximately 4,025 miles of gas distribution mains. Peoples Gas  
69 owns approximately 425 miles of transmission lines. Peoples Gas' distribution system is  
70 most commonly operated at a pressure range of 0.25 to 25 pounds per square inch, while  
71 the transmission system operates at pressures up to 300 pounds per square inch or more.  
72 Peoples Gas owns a storage field, Manlove Field, which is discussed in detail in the  
73 direct testimony of Peoples Gas witness Mr. Puracchio (Peoples Gas Exhibit ("Ex.")  
74 TLP-1.0).

75 Q. How would you describe the physical configuration of the Peoples system?

76 A. The physical configuration of Peoples Gas' system is a dispersed/multiple city-gate,  
77 integrated transmission/distribution and multi pressure-based system.

78 Q. What considerations have gone into the design of the Peoples Gas system?

79 A. Peoples Gas' system is designed to provide gas service to all customers entitled to be  
80 attached to the system, to deliver volumes of natural gas to all sales and transportation  
81 customers, and to meet the aggregate peak design day capacity requirements of all  
82 customers entitled to service on the peak day. A gas utility system sized only to  
83 accommodate average gas demands would not be able to meet system peak demands.

84 **A. Gross Utility Plant**

85 Q. Are you familiar with the types of Plant summarized on Schedule B-5 of Peoples Gas  
86 Ex. JH-1.1?

87 A. Yes, I am, with respect to Distribution, Transmission -- Not Leased, and General Plant.  
88 Schedule B-5 is sponsored by Peoples Gas witness Mr. Hengtgen (Peoples Gas  
89 Ex. JH-1.0), and described in his testimony. That schedule sets forth gross additions,  
90 retirements and transfers to Peoples Gas' plant in service and concludes with plant  
91 balances at December 31, 2010 (Schedule B-5, page 2, Column J). Peoples Gas' total  
92 plant in service, Account 101 plus Completed Construction Not Classified, Account 106,  
93 is \$2,835,122,000 at December 31, 2010 (Schedule B-5, page 2, Column J, line 9).

94 Q. In your opinion, is the Distribution, Transmission -- Not Leased, and General Plant,  
95 represented on Schedule B-5 used and useful in Peoples Gas' rendering of utility service?

96 A. Yes. All of that Plant is used and useful.

97 Q. Are you familiar with the major categories of plant?

98 A. Yes. The major categories of the plant are Distribution, Underground Storage, Liquefied  
99 Natural Gas, Transmission, General, Intangible, Production, Recoverable Natural Gas,  
100 and CWIP. I will discuss Distribution, Transmission, and General Plant, below.  
101 Mr. Puracchio will discuss Underground Storage Plant, Liquefied Natural Gas Plant, and  
102 Recoverable Natural Gas. Mr. Hengtgen will discuss Intangible, Production, and CWIP.

103 Q. Please describe Peoples Gas' test year Distribution Plant.

104 A. Peoples Gas' Distribution Plant was \$2,061,372,000 at the end of the test year.  
105 Distribution Plant is comprised of 4,025 miles of distribution mains and related facilities,  
106 such as service pipes, regulators, valves and meters. Distribution facilities are typically  
107 connected directly to our customers.

108 Q. How is the Distribution Plant used to provide service to Peoples Gas' customers?

109 A. Customers are serviced directly by the distribution system through company-owned  
110 service lines linking the distribution mains with customer owned piping.

111 Q. Please describe Peoples Gas' test year Transmission Plant.

112 A. Peoples Gas' Transmission Plant was \$127,915,000 at the end of the test year.  
113 Transmission Plant consists of the larger size and higher pressure pipelines and related  
114 facilities (e.g., valves, and regulators) typically used to move gas from Manlove Field,  
115 from our interconnections with the interstate pipelines and throughout our service  
116 territory. Unlike Distribution Plant, transmission facilities are not typically connected  
117 directly to our customers' service.

118 Q. How is the Transmission Plant used to provide service to Peoples Gas' customers?

119 A. As I testified, Peoples Gas' Transmission Plant is used to move gas from the interstate  
120 pipeline suppliers to our local distribution systems, and is useful to Peoples Gas'  
121 customers in performing those functions. Indeed, these functions are essential if Peoples  
122 Gas is to provide gas to its customers and essential to its use of its assets.

123 Q. What is General Plant?

124 A. While I am not a plant accountant, I understand at the practical level that General Plant  
125 consists of assets that are used in the provision of gas service, but that are not subject to  
126 being specifically classified as Distribution, Transmission, Production, or Storage.  
127 Illustrative examples of General Plant include real estate Peoples Gas owns which is not  
128 part of a specific Distribution, Transmission, or Storage asset, vehicles used in the  
129 performance of various Peoples Gas functions (automobiles, backhoes, etc.), and tangible  
130 computer equipment.

131 Q. How is General Plant used and useful in the provision of natural gas utility services?

132 A. Assets included in General Plant support the provision of our utility services. We would  
133 not be able to provide those services without our General Plant assets.

134 **B. Cost Control and Investment**

135 Q. Please describe how Peoples Gas has controlled the capital cost of its Transmission and  
136 Distribution functions.

137 A. In addition to its general processes for deciding to make and managing capital  
138 investments, Peoples Gas has implemented many cost saving initiatives in its operations,  
139 such as directional boring and the use of coiled plastic pipe that have contributed to the  
140 extended period of stable rates. Directional boring has reduced main installation costs by  
141 minimizing restoration costs through the elimination of open cut trenches. Labor costs of  
142 installation are also reduced since much less excavating is required. The use of coiled  
143 plastic pipe has also contributed to lower main installation costs by installing greater  
144 lengths of continuous pipe segments. Longer lengths of continuous pipe segments  
145 reduces the number of field fusion joints required and contributes to overall lower main  
146 installation costs.

147 Q. Please briefly describe how Peoples Gas decides how to make capital investments.

148 A. Each fiscal year, Peoples Gas prepares a capital expenditures budget for the upcoming  
149 fiscal year, setting forth recommendations for capital expenditures for major categories of  
150 plant. The budget is scrutinized at many levels and ultimately submitted to the Board of  
151 Directors for its approval.

152 Q. Once the capital budget is approved, how does Peoples Gas monitor its capital  
153 expenditures?

154 A. After the Capital Budget is approved, aggregate expenditures are tracked monthly and  
155 reconciled with the Capital Budget. Forecast for expenditures are adjusted based on  
156 actuals to ensure compliance with the budget targets.

157 Q. Are you familiar with Condition 22 in Appendix A of the Commission's final Order in  
158 ICC Docket No. 06-0540?

159 A. Yes, I am. Condition 22 states that the Gas Companies, meaning Peoples Gas and North  
160 Shore, will maintain their respective capital expenditure budgets and operation and  
161 maintenance budgets associated with their physical gas systems, specifically, distribution,  
162 transmission, measurement, and storage, for the aggregate period 2007 through 2009 at  
163 levels that will equal or exceed the actual capital and operation and maintenance  
164 expenditures, excluding unusual items of a non-recurring nature, by each of the two  
165 utilities during the aggregate three-year period of fiscal 2004 through fiscal 2006.

166 Q. To date, is Peoples Gas in compliance with this condition?

167 A. Yes. For 2007 and 2008, the cumulative spending on O&M for Peoples Gas has already  
168 achieved 96%, of the cumulative 2004-2006 O&M spend. Similarly, for 2007 and 2008,  
169 the cumulative capital spending for Peoples Gas already achieved 98% of 2004-2006  
170 cumulative capital spending.

171 **II. SUMMARY OF MAJOR CAPITAL PROJECTS**

172 Q. Please describe Peoples Gas Ex. ED-1.1.

173 A. Peoples Gas Ex. ED-1.1 sets forth Schedule F-4, of the Commission's Standard Filing  
174 Requirements, and contains information about Peoples Gas' major projects for fiscal  
175 years 2007 through 2010.

176 Q. For purposes of this exhibit, how did you define "major project"?

177 A. The definition currently contained in 83 Illinois Administrative Code Part 285.6100 for  
178 Schedule F-4 varies by size of utility. For a gas utility the size of Peoples Gas, a major  
179 project is one with a cost greater than the lower of 0.2% of net plant, or \$10,000,000.  
180 Peoples Gas' net plant at December 31, 2007 was \$1,538,505,136. (ILCC Form 21,  
181 page 200). Therefore, for Peoples Gas, a major project would be one that costs more than  
182 \$3,100,000.

183 Q. Using this definition, how many major projects did Peoples Gas identify in Schedule F-4?

184 A. Three. I will be discussing two of them: 1) Cast Iron and Ductile Iron Pipe Replacement  
185 Program and 2) North Avenue Bridge tunnel-shaft reconstruction and 2-36" main  
186 relocations. Mr. Puracchio is discussing a third project.

187 **Cast Iron and Ductile Iron Pipe Replacement Program**

188 Q. Please describe Peoples Gas' Cast Iron and Ductile Iron Pipe Replacement Program.

189 A. In fiscal year 1981, Peoples Gas decided to replace its predominantly cast iron and  
190 ductile iron main system with cathodically protected steel and plastic main. (Because the  
191 main system is predominantly cast iron, I will hereinafter refer to cast iron and ductile  
192 iron collectively as "cast iron.") In that year, cast iron main represented 3,450 miles out  
193 of the total of 4,031 miles of main in Peoples Gas' distribution system, or 86%. The  
194 decision was based, in part, on a 1981 study performed by Zinder Engineering which was

195 updated in 1993. This study concluded that it would be reasonable and prudent to  
196 complete main replacement by 2050. By the end of 2008, the percentage of cast iron  
197 main in Peoples Gas' distribution system had been reduced to 47%, or 1,882 miles of cast  
198 iron main out of a total 4,025 miles of mains. In 2002, ZEI Inc. (the successor to Zinder  
199 Engineering), prepared a new report evaluating the replacement of the remaining cast  
200 iron mains. In its report, ZEI developed three scenarios for completion of the main  
201 replacement project: completion by the years 2040, 2050, and 2060. (A review of the  
202 2002 ZEI report is included in the workpapers to Schedule F-4, designated PGL WPF-  
203 4.6.) ZEI affirmed the reasonableness and prudence of the plan to complete replacement  
204 by the year 2050. ZEI found that such a plan, while having a greater net present value  
205 than the 2060 plan, has less uncertainty in terms of future breakage rates, maintenance  
206 costs, and projected installation costs. The ZEI report was reviewed by a Task Group of  
207 Peoples Gas' employees. In its report, the Task Group prepared a report and agreed that  
208 the current plan for replacement by the year 2050 should be sustained, consistent with the  
209 recommendation of ZEI. The total cost of the Cast Iron Pipe Replacement Program for  
210 fiscal years 2007 through 2010 is projected to be \$245,000,000.

211 Q. Has the unit cost of cast iron main replacement changed in recent years?

212 A. Yes, the cost has increased significantly beginning in 2007. In the three years leading up  
213 to 2007, the average per mile cost of cast iron main replacement was about \$750,000. In  
214 2007 the average unit cost increased to more than \$930,000 per mile, primarily due to  
215 increased paving costs. In order to comply with the City of Chicago's more stringent  
216 street resurfacing practices, Peoples Gas has had to expand the number of restoration  
217 contractors for the project, which has substantially increased the overall cost.

218 Q. What assumptions were made to forecast the cast iron replacement costs for the years  
219 2008, 2009 and 2010?

220 A. Capital budget assumptions were used for cast iron main replacement, which reflects a  
221 14.8% yearly increase in 2009 and 109.9% increase in 2010, the test year. For 2010, an  
222 additional 46 miles of cast iron main replacement is assumed consistent with the  
223 implementation of the proposed Infrastructure Cost Recovery rider (“Rider ICR”).

224 Q. If ZEI found that the plan to complete the main replacement project by 2050 was prudent  
225 and reasonable, why is Peoples Gas seeking Rider ICR to accelerate its replacement  
226 program?

227 A. While completing the replacement project by 2050 would be prudent in light of Peoples  
228 Gas’ management of the risks posed by its aging, low-pressure system, the benefits of  
229 accelerating the replacement are greater, making it the more prudent course of action to  
230 pursue via Rider ICR. The benefits of accelerating the program include increased safety  
231 for the public and Peoples Gas crews, construction and O&M cost savings, creation of  
232 jobs, reduction in environmental impacts, and increased functionalities. The details  
233 concerning Peoples Gas’ request and support for Rider ICR may be found in the  
234 testimony of James F. Schott (Ex. JFS-1.0), Valerie H. Grace (Ex. VG-1.0), and  
235 Salvatore D. Marano, P.E. (Ex. SDM-1.0).

236 Q. Since 1981 what is the amount of cast iron main that Peoples Gas has replaced?

237 A. In 1981, there were 3,450 miles of cast iron main on Peoples Gas’ system. At the end of  
238 2008, 1,882 miles of such main remained, a reduction of 1,568 miles of main.

239 Q. What analysis of alternatives has Peoples Gas undertaken?

240 A. At this point, with the program well under way, we do not consider alternatives to the  
241 overall program. We do, however, use a rigorous analysis to determine which of the  
242 many alternative cast iron mains in the system should be the next to be replaced.

243 Q. What criteria have been utilized in deciding which mains to replace?

244 A. In replacing cast iron mains, Peoples Gas utilizes criteria according to its Main Ranking  
245 Index (“MRI”), which guides it in making appropriate decisions about targeting which  
246 main to replace.

247 Q. Please describe the MRI and explain how Peoples Gas uses it in determining which cast  
248 iron mains to replace.

249 A. The MRI system was developed in 1995 and instituted in 1996 to identify and prioritize  
250 gas main segments as candidates for replacement. A segment is defined as a unique unit  
251 of pipe identified by parameters such as installation year, operating pressure, pipe  
252 diameter, pipe material, and in-street and square mile boundaries. Because segment  
253 lengths vary from one foot to one mile, the MRI normalizes segment lengths greater than  
254 one city block to one city block for evaluation purposes. Each individual segment is  
255 evaluated based on its maintenance history. Criteria taken into account include breaks,  
256 cracks at taps, pipe wall thickness based on pipe coupons, visual observation, incidence  
257 of leak and other repairs. Each of these criteria is assigned a multiplication factor based  
258 on “Break Equivalents” which is then multiplied by the number of occurrences to  
259 calculate a numerical value for each criterion.

260 The sum of the aforementioned numerical values is then multiplied by a factor  
261 based on pipe material, operating pressure, diameter, street type and pavement cover.

262 The result of this calculation is a value that is assigned to each segment, *i.e.* the MRI.

263 The MRI value is rounded to the nearest quarter point, and sorted in descending order in  
264 order to identify those segments with the highest incidence of MRI points per block.

265 All segments that have accumulated an MRI rating greater than 6.0 are placed on  
266 a schedule to be retired. Segments with an MRI value greater than 3.0 are viewed as  
267 possible replacement candidates when performing work on adjacent segments and when  
268 evaluating the extent of public improvement projects under consideration.

269 Three criteria are used to determine the pipe to be replaced in any given year.  
270 First, the MRI rating is considered, as it highlights the most problematic segments of pipe  
271 in terms of their maintenance histories. Second, Peoples Gas' selections for replacement  
272 are coordinated with areas where the City of Chicago or other applicable governmental  
273 bodies are conducting public improvement work. This coordination with public  
274 improvement projects reduces the likelihood that Peoples Gas will need to disturb  
275 recently completed municipal infrastructure improvements in the future. Finally,  
276 replacement miles are determined from capital projects for the year, with consideration  
277 given to contiguous areas with highly ranked mains which allows for more cost effective  
278 replacement in concentrated areas.

279 Q. What is your overall view of Peoples Gas' cast iron replacement program?

280 A. Peoples Gas' program has been conducted in a reasonable and prudent manner. The  
281 criteria used to identify mains for replacement and the schedule Peoples Gas is following  
282 have been carefully evaluated and applied with due regard for system safety and cost  
283 effectiveness.

284 Q. What benefits do customers derive from the cast iron replacement program?

285 A. The overarching motivation for replacing cast iron main is the safety and reliability of  
286 service for customers. Most of Peoples Gas' cast iron mains were installed from the  
287 1860s through the 1960s. Over a long period of time, cast iron pipes deteriorate as the  
288 pipe walls are diminished through corrosion. Modern plastic or cathodically protected  
289 steel high pressure distribution systems are used to replace the predominantly low  
290 pressure cast iron mains. High pressure distribution systems are inherently more reliable  
291 than older vintage low pressure systems. A common problem with old cast iron low  
292 pressure systems is that they are susceptible to ground water infiltration. When ground  
293 water collects in gas mains, the flow of gas is restricted and, in many cases, completely  
294 blocked causing service outages. Ground water cannot physically infiltrate high pressure  
295 gas distribution systems eliminating this common problem in low pressure systems.  
296 Furthermore, modern high pressure gas systems utilize smaller diameter piping than old  
297 low pressure systems. Smaller piping allows for more cost effective replacement of  
298 comparable capacity low pressure systems.

299 Q. Are there other customer benefits derived from cast iron replacement?

300 A. Yes, all gas distribution piping systems require regulating stations which reduce pressures  
301 for downstream piping systems. By eliminating low pressure systems, an entire class of  
302 low pressure regulating stations can be eventually phased out. Eliminating low pressure  
303 regulating stations reduces ongoing maintenance cost and improves reliability.

304 Finally, when upgrading low pressure systems Peoples Gas relocates most gas  
305 meters from inside buildings to outdoors. By relocating meters outdoors, customers are  
306 not inconvenienced with federally mandated, periodic inside safety inspections for  
307 company facilities.

308 Q. What conclusions have you reached?

309 A. The investment in the Cast Iron and Ductile Iron Pipe Replacement Program has been  
310 prudently undertaken, is reasonable in cost, and the facilities installed are used and useful  
311 in providing utility service.

312 **North Avenue Bridge Project – Tunnel Shaft**  
313 **Reconstructions and Main Relocations**

314 Q. Please describe the North Avenue Bridge Project.

315 A. The North Avenue Bridge Project stemmed from a public improvement project to  
316 reconstruct the North Avenue bridge crossing the North branch of the Chicago River.  
317 Peoples Gas has two tunnel crossings of the river at this location, one for a 36” high  
318 pressure line and the other for a 36” medium pressure main. The reconstruction of the  
319 bridge required that Peoples Gas revise a total of four tunnel shafts, two for each tunnel  
320 and relocate the two 36” mains to tie-into the revised tunnel shafts.

321 Q. What was the total cost for the North Avenue bridge project?

322 A. The total cost was \$4.28 million.

323 Q. Was Peoples Gas reimbursed for the cost of the project?

324 A. No. Since this was a public improvement project, and Peoples Gas’ mains were in City  
325 right-of-way by permission, Peoples Gas had to comply with the City of Chicago  
326 directives and had no recourse to seek reimbursement.

327 Q. What analysis of alternatives did Peoples Gas undertake?

328 A. There were no feasible relocation alternatives, so the only alternative was to abandon the  
329 mains instead of relocating them. Peoples Gas conducted flow studies to evaluate the

330 consequence of these facilities being out of service during the winter heating season.  
331 Flow studies concluded that service to 50,000 customers in the Chicago downtown area  
332 would be curtailed if the mains were not in-service. These studies showed that these  
333 mains are critical components of Peoples Gas' distribution system. Therefore it was  
334 essential that these critical mains be returned to service.

335 Q. What conclusions have you reached as to the North Avenue Bridge Project?

336 A. The investment in the North Avenue Bridge Project has been prudently undertaken, is  
337 reasonable in cost, and the facilities installed are used and useful in providing utility  
338 service.

339 **IV. TEST YEAR RATE BASE ADDITIONS**

340 Q. Are you familiar with the additions to plant assumed for the 2010 test year rate base?

341 A. Yes. I will address the additions to plant related to Distribution, Transmission, and  
342 General. Others will address additions to underground storage, liquefied natural gas,  
343 intangible plant, production, recoverable natural gas, and CWIP.

344 Q. What assumptions were made for additions to distribution plant?

345 A. Most of the budgeted dollars for 2010 additions to distribution plant are related to system  
346 improvements and public improvements. For system improvements, we have assumed a  
347 significant increase in the cast iron main replacement program in anticipation of  
348 implementation of the proposed Infrastructure Cost Recovery rider. The cast iron main  
349 replacement program was accelerated to retire 90 miles of main in 2010 at a cost of  
350 \$96 million. The remainder of the budget for 2010 is related to public improvements,  
351 system expansions, and vault upgrades.

352 Q. Please describe Peoples Gas' test year Transmission Plant.

353 A. The majority of the Transmission Plant addition for 2010 (\$1.6 million) is related to a  
354 new gas heater to be installed at Sharp Road to heat high pressure gas received from  
355 interstate pipeline suppliers.

356 Q. Mr. Hengtgen testifies that the amount included in CWIP in the proposed test year rate  
357 base includes an amount in the range of \$3 million to \$4 million of ongoing distribution  
358 plant projects. Do you agree that this amount is reasonable?

359 A. Yes. While we finish many distribution projects before the winter season, and therefore  
360 before the end of the year, each year some projects will still be ongoing and included in  
361 CWIP. \$3 million to \$4 million is a typical amount of distribution projects for us to be  
362 carrying at year end.

363 Q. Do you anticipate any changes in the way Peoples Gas decides how to make capital  
364 investments and how those expenditures are monitored?

365 A. No. I expect that Peoples Gas will continue to recommend a capital expenditures budget  
366 for the upcoming fiscal year, setting forth recommendations for capital expenditures for  
367 major categories of plant. The budget will be scrutinized at many levels and ultimately  
368 submitted to the Board of Directors for its approval. Aggregate expenditures will be  
369 tracked monthly and reconciled with the Capital Budget. Forecast for expenditures will  
370 be adjusted based on actuals to ensure compliance with the budget targets.

371 **ICC MANDATED PIPELINE SAFETY AUDIT**

372 Q. Are you familiar with the Peoples Gas pipeline safety audit conducted by The Liberty  
373 Consulting Group ("Liberty") on behalf of the Commission?

374 A. Yes.

375 Q. Please describe the audit.

376 A. The pipeline safety audit reviewed all aspects of Peoples Gas' compliance with federal  
377 regulations governing pipeline safety activities. This included system integrity, system  
378 operation, construction, operator qualifications, and performance monitoring.

379 Q. What were some of the major findings of the audit?

380 A. The audit resulted in 66 recommendations to improve the pipeline safety program at  
381 Peoples Gas. The major findings focused on Excavation Damage Prevention, Leak  
382 Management, Operator Qualification, Quality Assurance and Quality Control, and  
383 Computer Systems.

384 Q. How does Peoples Gas intend to address the Excavator Damage Prevention  
385 recommendation?

386 A. Most of the issues related to damage prevention deal with improved analysis for root  
387 causes of damages and improved communication with excavators and the City of  
388 Chicago's one-call system, Digger. To address these concerns the report recommends,  
389 and Peoples Gas accepts, a recommendation to establish a new department with overall  
390 responsibility for damage prevention. The report also recommends improved training for  
391 field locators and more contact between field locators and excavators.

392 Q. Please describe the recommendations related to leak management.

393 A. Liberty identified an industry best practice of limiting the number of leaks carried over  
394 from one year to the next to not exceed 10% of leaks repaired in any given year. For  
395 Peoples Gas, the average number of leaks repaired annually is roughly 3,000. Therefore,

396 this best practice suggests we should not carry over more than 300 leaks in a given year.  
397 We are carrying over about 550 leaks into 2009 and cleared almost 3,200 leaks for a ratio  
398 of about 17%. Peoples Gas has committed to reduce the ratio of pending leaks to leaks  
399 cleared to less than or equal to 14 % in 2009 and 10% in 2010. Peoples Gas has accepted  
400 the Liberty recommendation and anticipates increasing the number of people assigned to  
401 leak repairs.

402 Q. Were there other recommendations regarding leak management?

403 A. Yes, Liberty recommended establishing a new department with sole responsibility for  
404 leak management. Peoples Gas disagreed with this recommendation, proposing instead  
405 to rely upon local district management to manage leaks. This approach is consistent with  
406 other utilities surveyed regarding leak management practices.

407 Q. Please describe recommendations regarding Operator Qualification.

408 A. The recommendations regarding Operator Qualification focus largely on improved  
409 training. The recommendations Peoples Gas has agreed to implement include reviewing  
410 and revising training course curriculum, eliminating non-training responsibilities of  
411 instructors, and increased analysis of test failures.

412 Q. What recommendations did Liberty have regarding Quality Assurance and Quality  
413 Control (“QA/QC”)?

414 A. Liberty commended Peoples Gas on the design of the QA/QC program but found it  
415 lacking in execution. In the past, the program was implemented by first line supervisors  
416 directly responsible for the crews. In 2009, the QA/QC audits will be conducted by an  
417 expanded Compliance Monitoring Group (“CMG”). The CMG team will be staffed to

418 take on the QA/QC audit and provide a more independent and objective assessment of the  
419 workforce.

420 Q. Finally, what were some of the recommendations related to computer systems?

421 A. The audit concluded that Peoples Gas was relying upon decades-old computer  
422 information systems that are inflexible and difficult to maintain. Peoples Gas had  
423 previously authorized the replacement of many of these legacy systems with a new Work  
424 and Asset Management system (“WAM”). Work is advancing on the new WAM system  
425 with implementation scheduled for early 2010.

426 Q. Does this conclude your direct testimony?

427 A. Yes it does.