

DIRECT TESTIMONY  
OF  
DARIN BURK  
PIPELINE SAFETY ANALYST II  
ENERGY DIVISION  
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission on its own motion

vs.

The Peoples Gas Light and Coke Company

DOCKET NO. 06-0311

Citation for alleged violation of Commission rules regarding external corrosion control  
monitoring.

August 23, 2006

1 **WITNESS IDENTIFICATION**

2 Q. **What is your name and business address?**

3 A. My name is Darin Burk. My business address is 527 East Capitol Avenue,  
4 Springfield, Illinois 62701.

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

6 A. I am employed by the Illinois Commerce Commission (“Commission” or “ICC”) as  
7 Pipeline Safety Analyst II in the Pipeline Safety Program of the Energy Division.  
8 In my current position, I perform audits and inspections in accordance with the  
9 natural gas pipeline safety program, which ensures the natural gas operators in  
10 Illinois are meeting the minimum federal safety standards as prescribed by 49  
11 CFR Sections 191.23, 192, 193, 199, and by the Illinois Gas Pipeline Safety Act  
12 (220 ILCS 20).

13 Q. **Please describe your education and experience?**

14 A. Prior to employment with the ICC, I was a Technician for Utility Safety and  
15 Design Inc. and the Southern Cross Corporation. Both companies provide field  
16 consulting services to the natural gas industry. I have received extensive  
17 technical training at the Transportation Safety Institute (“TSI”) in Oklahoma City,  
18 which is where state and federal pipeline safety inspectors receive technical  
19 education relating to the enforcement and interpretation of pipeline safety  
20 standards. Training at TSI included subjects such as incident investigation,  
21 pipeline integrity management, operator qualification, pipeline corrosion control  
22 and various other technical aspects of natural gas pipeline operations. I have  
23 worked as a Pipeline Safety Analyst for 17 years.

24 **PURPOSE OF TESTIMONY**

25 Q. **What is the purpose of this proceeding?**

26 A. The purpose of this proceeding is to consider whether Peoples Gas Light and  
27 Coke Company (“Company”) or (“Peoples”) has violated Commission rules  
28 regarding external corrosion control monitoring requirements as required under  
29 49 CFR Part 192.465 (a); taking prompt remedial action to correct deficiencies  
30 discovered during the monitoring as required under 192.465 (d); and the failure  
31 to follow its own procedures as required by 49 CFR Part 192.13(c). These  
32 sections of Part 192 were adopted by the ICC under 83 Ill. Admin. Code Part 590  
33 in 1977.

34 Q. **What is the purpose of your testimony?**

35 A. The purpose of my testimony is to present Staff of the Commission’s (“Staff”)  
36 position. I have performed inspections and created or participated in creating  
37 reports that lead to the Initiating Order in this proceeding. The report for the  
38 Initiating Order is attached to and incorporated into my testimony. (See  
39 Attachment A)

40 **Regulatory and Enforcement Provisions**

41 Q. **What authority or jurisdiction does the ICC have in this matter?**

42 A. Enforcement of the Minimum Federal Safety Standards is granted to the ICC  
43 under an agreement pursuant to 49 U.S.C. Section 60105 with the U.S.  
44 Department of Transportation (“USDOT”) Office of Pipeline Safety. The federal  
45 standards codified under 49 CFR Sections 191.23, 192, 193 and 199 have been  
46 adopted by the State of Illinois in 83 Ill. Adm. Code 590.

47 Q. **What is the regulation covering corrosion control monitoring?**

48 A. Corrosion control monitoring is covered under 49 CFR Part 192.465(a) which  
49 states:

50 *Sec. 192.465 External corrosion control: Monitoring.*

51  
52 *(a) Each pipeline that is under cathodic protection must be*  
53 *tested at least once each calendar year, but with intervals not*  
54 *exceeding 15 months, to determine whether the cathodic*  
55 *protection meets the requirements of § 192.463. However, if*  
56 *tests at those intervals are impractical for separately protected*  
57 *short sections of mains or transmission lines, not in excess of*  
58 *100 feet (30 meters), or separately protected service lines,*  
59 *these pipelines may be surveyed on a sampling basis. At least*  
60 *10 percent of these protected structures, distributed over the*  
61 *entire system must be surveyed each calendar year, with a*  
62 *different 10 percent checked each subsequent year, so that the*  
63 *entire system is tested in each 10-year period.*  
64

65 Q. **What is the regulation covering correcting corrosion control deficiency?**

66 A. *Sec. 192.465 External corrosion control: Monitoring. (d) Each*  
67 *operator shall take prompt remedial action to correct any*  
68 *deficiencies indicated by the monitoring.*  
69

70 Q. **Would you say that corrosion control monitoring and correcting a**  
71 **corrosion control deficiency are the same act?**

72 A. No. Monitoring refers to testing the pipeline on a specified schedule. Correcting  
73 a corrosion control deficiency requires taking remedial action after it has been  
74 determined that there is a deficiency in the pipeline's corrosion control. These  
75 are separate activities.

76  
77 Q. **When was 49 CFR Part 192.465 established and then adopted by the Illinois**  
78 **Commerce Commission?**

79 A. 49 CFR Part 192 was originally adopted on August 19, 1970. 49 CFR Part  
80 192.465 was included in Amendment 192-4 which became effective August 1,  
81 1971. These rules were codified by the Commission under II Admin Code Part

82 590, which was first adopted in 1977 with biennial updates to adopt any  
83 amendments since that time.

84 Q. **Why is corrosion control monitoring important?**

85 A. Corrosion control monitoring surveys are critical to ensuring the safety and  
86 integrity of natural gas distribution systems. The monitoring process can identify  
87 areas that may be susceptible to corrosion on the metallic piping systems.  
88 Adequate corrosion control can significantly decrease the likelihood of corrosion  
89 on the pipeline and subsequent leakage of the natural gas contained in the  
90 piping. Corrosion problems left uncorrected could result in escaping gas, which  
91 could cause explosions or fires and, thus, result in loss of property or life.

92 Q. **Explain “prompt remedial action”?**

93 A. The Pipeline and Hazardous Materials Safety Administration ("PHMSA") is within  
94 the U. S, Department of Transportation. PHMSA is the primary federal regulatory  
95 agency responsible for ensuring safe, reliable, and environmentally sound  
96 operation of America’s energy pipelines. PHMSA develops and implements  
97 pipeline regulations at a federal level and shares regulatory responsibility with the  
98 States. PHMSA provides guidance material beyond the adopted regulations to  
99 aid with clarification of performance based standards. Inspection guidelines are  
100 provided to state inspectors to ensure consistent interpretation and enforcement  
101 of the CFR. Guidance material involving remedial action states that, under  
102 normal conditions, the operator should have the evaluation and decisions made  
103 and action started within a few months, or less where required monitoring is to  
104 occur on intervals of less than one year, and corrective action completed by the  
105 time of the next scheduled monitoring. The CFR requires the gas system

106 operator to have procedures in place to address maintenance issues. Peoples  
107 Corrosion Control Policy, Operating and Maintenance Plan Exhibit X Revised  
108 August 2003 Page 12 of 31 states:

109           Except for remedial actions requiring substantial construction  
110           effort, PGL's objective is to complete necessary remedial action  
111           such that cathodic protection is restored to the system within one  
112           year from the time of discovery of the inadequate protection level.  
113

114 Q.   **To what extent are corrosion monitoring surveys to be conducted on gas  
115       pipeline facilities?**

116 A.   Gas pipeline operators are responsible for corrosion monitoring surveys, which  
117       are to be conducted on all metallic pipelines. As previously stated, CFR Part  
118       192.465 (a) requires that each pipeline that is under cathodic protection must be  
119       tested at least once each calendar year, but with intervals not exceeding 15  
120       months, to determine whether the cathodic protection meets the requirements of  
121       § 192.463. Separately protected short sections of mains and separately  
122       protected service lines may be surveyed on a ten-year sampling basis.

123 Q.   **Please provide a general explanation of cathodic protection and what is  
124       involved in a monitoring survey.**

125 A.   Regular inspections to assess the rate of change in physical condition give an  
126       accurate idea of how much longer a pipeline can be expected to operate safely  
127       and productively and can also be used to plan for remedial action if the life of the  
128       pipeline is below requirement. Iron and steel pipes that transport natural gas  
129       underground may suffer from corrosion due to chemical and electrochemical  
130       reactions. Cathodic protection reduces the corrosion rate of a metal pipe by  
131       reducing its corrosion potential. The two main methods of achieving this goal are

132 by either using sacrificial anodes with a potential lower than the metal to be  
133 protected or by using an impressed current provided by an external source.  
134 Sacrificial anodes are pieces of metal that are electrically connected to the metal  
135 pipe and are more electrically active than the metal pipe. Because these anodes  
136 are more active, a corrosive current will exit from them rather than from the metal  
137 pipe. Thus, the pipe is protected while the attached anode is sacrificed. When  
138 anodes are depleted they must be replaced to continue the corrosion protection.  
139 An impressed current system uses a device to convert alternating current to  
140 direct current called a rectifier. The current is sent through an insulated wire to  
141 the anodes, which are special metal bars buried in the soil near the pipeline. The  
142 current then flows through the soil to the pipe and returns to the rectifier through  
143 an insulated wire connected to the pipe. The pipe is protected from corrosion  
144 because the current going to the pipe overcomes the corrosion causing current  
145 normally flowing away from it. The level of cathodic protection on a pipeline is  
146 measured with a volt meter and a copper-copper sulfate electrode or half-cell. A  
147 half-cell is a cylindrical device that contains a copper rod suspended in a copper  
148 sulfate and water solution. The copper rod is connected to the negative terminal  
149 of a volt meter via an insulated wire. The solution inside the half-cell makes  
150 contact with the earth via a porous plug in the bottom of the cylinder. A test lead  
151 connected to the positive terminal of a volt meter is connected to the metallic gas  
152 pipe or test wire attached to the pipe. The current flow is measured through the  
153 volt meter. To achieve cathodic protection in accordance with the -0.85v criteria  
154 a minimum of negative 0.85 volt must be maintained on the pipeline at all times  
155 to maintain the cathodic protection.

156 Q. **What are the Part 192.463 requirements?**

157 A. The requirements state that each cathodic protection system required by this  
158 subpart must meet the requirements of Appendix D of 49 CFR Part 192.  
159 Appendix D outlines the various criteria that may be used to prove cathodic  
160 protection exists on the pipeline. The most commonly used criteria and the  
161 criteria used on the majority of Peoples steel piping is a negative cathodic  
162 voltage of at least 0.85 volt with reference to a saturated copper-copper sulfate  
163 half-cell. This means that when the pipe-to-soil potential is obtained through a  
164 volt meter and half-cell it should be consistently more negative than negative  
165 0.85 volts ("-0.85"). If it is not more negative than negative 0.85 volts then  
166 remedial actions are required.

167 Q. **When did you become aware that Peoples failed to meet the monitoring  
168 requirements?**

169 A. According to records produced during a January 2004 audit, Peoples failed to  
170 monitor short sections of steel main and isolated steel gas services within the  
171 ten-year time interval required by CFR Part 192.465 (a) in calendar year 2003.  
172 The piping falling into the category described above that was monitored in 1993  
173 would have required additional monitoring by the end of calendar year 2003.

174 Q. **What did the audit indicate as to the monitoring of steel main and isolated  
175 steel gas services?**

176 A. Staff recorded thirteen examples of steel sections that were not monitored as  
177 required in either 2002 or 2003 during the January 2004 record audit in the Field  
178 Trip Report ("2004 Report") drafted upon completion of the audit. The thirteen  
179 identified were examples of the issue identified and not an all inclusive list. (See

180 Attachment B). The examples included test points that had 0.00 readings  
181 recorded for the periods identified above. The zero test readings were discussed  
182 with the Peoples representatives associated with the audit. The individual in  
183 charge of the corrosion control program at that time stated that the zero readings  
184 were a result of the inability of the technicians to obtain readings at the  
185 designated test points due to the fact either that the test box was covered by  
186 pavement or soil or that the test wires had become damaged or disconnected.  
187 He also stated that he understood the CFR to allow one inspection cycle to  
188 correct deficiencies noted during the monitoring and in his opinion correcting a  
189 damaged test station fell into this category. As indicated on the 2004 Report,  
190 Staff explained that test lead maintenance was not considered a correction to a  
191 deficiency in the cathodic protection since it did not necessarily effect the level of  
192 protection. He was told that test lead maintenance most definitely affected the  
193 ability to monitor the level of protection, so that test lead maintenance is required  
194 to be performed so that test may be completed on the cycles required by the  
195 CFR.

196 Q. **Were there any audit findings regarding failure to correct deficiencies in**  
197 **January 2004?**

198 A. One example was recorded of a segment of main that required annual testing  
199 that was listed as having a pipe-to-soil potential below the required level. This is  
200 listed as reference number 100-18310-10 on page 2 of the 2004 report. Again  
201 this was recorded as an example of the issue and was not an all inclusive listing.  
202 The remedial action requirements were discussed with Peoples representatives

203 during an exit meeting. The remedial action guidance material was reviewed with  
204 the Peoples personnel associated with the audit.

205 Q. **Was Peoples notified of any deficiency and if so, what type of notification**  
206 **was provided?**

207 A. Yes. A notice of Apparent Non-compliance was issued to Peoples on January  
208 30, 2004. A letter was sent to Mr. Glen Armstrong, Manager Code Compliance,  
209 Peoples Gas Light and Coke Company dated January 30, 2004. (See  
210 Attachment C) The letter explained that the records reviewed indicated that  
211 Peoples had not complied with the corrosion control monitoring activities required  
212 under the CFR. The letter also requested a reply describing the actions Peoples  
213 intended to initiate to prevent a reoccurrence of the problem.

214 Q. **Did Peoples respond as requested?**

215 A. Yes. On February 25, 2004, a letter addressed to Mr. Rex Evans was received  
216 from Glen Armstrong. (See Attachment D) The letter explained that Peoples  
217 had been applying guidance gleaned from a statement made by an Office of  
218 Pipeline Safety Director in a public forum. The guidance included that the natural  
219 gas system operator had until the next scheduled survey for the correction of  
220 condition found during the monitoring and that Peoples considered this to include  
221 the repair of test stations and test lead wires. The letter also stated that  
222 corrective actions, when needed to restore system protection levels to the  
223 requirements of 49 CFR part 192 Appendix D, are completed within the stated  
224 timeframe. The letter stated PGL had revised its corrosion test station monitoring  
225 schedule by compressing sufficient time to perform required repairs and obtain a  
226 reading within the mandated window. The letter also stated that additional

227 emphasis has been placed on scheduling and completing to coincide with code  
228 deadlines.

229 Q. **Did Staff perform a follow-up audit of Peoples corrosion control**  
230 **monitoring?**

231 A. Yes. In March of 2005, Staff performed a follow-up audit of Peoples corrosion  
232 control monitoring program.

233 Q. **What issues were noted on the follow-up audit?**

234 A. The issues noted were: fifty-four isolated service lines due for testing in 2003 had  
235 not been tested as of March 9, 2005; one isolated service line due for testing in  
236 2004 had not been tested as of March 9, 2005; five isolated segments of main in  
237 excess of 100 feet were not tested as required in 2003; twenty-one corrosion  
238 control families requiring annual testing in 2004 were not tested within the fifteen  
239 month interval required; four corrosion control families requiring annual testing  
240 were not tested at all in 2004; and eighteen corrosion control test points found to  
241 have less than adequate levels of cathodic protection in 2003 did not receive  
242 corrective actions in 2003 or 2004. The Field Trip Report ("2005 Report") from  
243 the March 8 and 9, 2005 follow-up audit is attached as Attachment E.

244 Q. **Had Peoples completed the surveys of the short sections of steel gas main**  
245 **and isolated gas services that were overdue and were the subject of the**  
246 **January 30, 2004 letter?**

247 A. No. At the time of the March, 2005 audit, Peoples had failed to test at least fifty-  
248 four isolated service lines that were due to be monitored in 2003.

249 Q. **Did the enhanced performance standards referenced in Peoples' February**  
250 **23, 2004 letter prevent a reoccurrence of the failure to monitor the**  
251 **pipelines?**

252 A. No. Several additional violations of the same nature were noted during the audit,  
253 including the failure to monitor one isolated service line due in 2004, and five  
254 isolated segments of main due in 2003.

255 Q. **Were any other violations identified in the March 2005 audit?**

256 A. Yes. The audit determined that at least twenty-one corrosion control families  
257 requiring annual testing were not tested within the fifteen month period in  
258 calendar year 2004; four corrosion control families were not tested at all in 2004;  
259 and eighteen corrosion control test points were found to have less than adequate  
260 levels of cathodic protection in 2003 did not receive corrective actions in 2003 or  
261 2004.

262 Q. **Please explain what is meant by a corrosion family?**

263 A. The cathodically protected pipelines are segregated into corrosion control  
264 families which are electrically isolated from each other, and cathodically  
265 protected as a unit. Electrical isolation is provided by a variety of insulating  
266 devices depending on the installations. Typically, the total footage of steel pipe  
267 in a corrosion control family of distribution main is between 2,500 and 3,500 feet.  
268 Insulators are installed at tie in points or in a long run of pipe to maintain  
269 corrosion control family size. Test points or test stations are designated at  
270 varying distances determined by Peoples based on the characteristics of the  
271 steel piping system.

272 Q. **How are these violations different from the ones discovered in 2003?**

273 A. These lines are required to be monitored annually, at intervals not to exceed 15  
274 months, to determine whether the cathodic protection meets the requirements of  
275 Part 192.463. The 2003 violations were failure to monitor lines that were  
276 required to be monitored every 10 years.

277 Q. **Were any other deficiency issues identified during the March 2005 audit?**

278 A. Yes. Eighteen test points requiring annual testing demonstrating less than  
279 adequate levels of cathodic protection in 2003 had not been tested in 2004. (See  
280 Attachment E) The discovery of the failure to demonstrate corrective actions on  
281 test points with inadequate levels of cathodic protection resulted in Staff issuing a  
282 notice of apparent non-compliance citing 49 CFR Part 192.465(d) on April 21,  
283 2005. (See Attachment F)

284 Q. **Please explain what is required to comply with Part 192.465(d)'s mandate to**  
285 **take prompt remedial action to correct any deficiencies?**

286 A. The meaning of prompt remedial action was addressed above in the  
287 discussion about the PHMSA guidance material.

288 Q. **Were the results of the follow-up audit provided to Peoples?**

289 A. Yes. On April 21, 2005, a letter was sent to Mr. Ed Doerk informing him that  
290 during an audit performed March 8-9, 2005 Staff found deficiencies and a notice  
291 of non-compliance was issued to Peoples citing CFR Part 192.465:

292 External corrosion control: Monitoring (d) Each operator shall take  
293 prompt remedial action to correct any deficiencies indicated by the  
294 monitoring. In addition a request for steps to be implemented to  
295 correct the deficiency and prevent a reoccurrence was requested.  
296 (See Attachment F)

297  
298 Q. **Was a response received?**

299 A. Yes. A letter dated May 16, 2005 was received from A. S. Ulanday, Manager,  
300 Technical Training Services and Compliance. (See Attachment G) The letter  
301 stated that Peoples had recently revised its Corrosion Control Policy. The  
302 revised Corrosion Control Policy states that "PGL's objective is to complete  
303 necessary remedial action such that cathodic protection is restored to the system  
304 within one year from the time of discovery of the inadequate protection level."  
305 (See Attachment G) In the letter dated May 16<sup>th</sup> 2005, Mr. Ulanday confirmed  
306 that over 3000 test points had not been monitored as required in calendar years  
307 2003 and 2004 combined. Mr. Ulanday also sent a follow-up letter on October  
308 12, 2005 with a weekly corrosion workload reporting sheet which detailed  
309 Peoples attempts at compliance. (See Attachment G)

310 Q. **Have additional audits of the Peoples corrosion control monitoring**  
311 **program been conducted since 2005?**

312 A. Yes. In January of 2006, Staff conducted an analysis of the corrosion control  
313 records maintained by Peoples. The review included a historical review of  
314 corrosion control test points that were recorded as having less than adequate  
315 levels of cathodic protection and remedial actions had been taken. Beginning  
316 February 7, 2006, Staff began field verification testing of approximately 370 test  
317 points that had been recorded as receiving remedial actions.

318 Q. **Did the Peoples' records reviewed by Staff indicate adequate levels of**  
319 **cathodic protection prior to the field testing performed by Staff?**

320 A. Yes. All of the test points chosen indicated adequate levels of protection.

321 Q. **What did the field testing include?**

322 A. Staff, assisted by Peoples personnel, went out to the pipeline and attempted to  
323 locate the test points where annual and 10-year testing had been performed.  
324 Upon locating the appropriate test point, pipe-to-soil potentials were taken using  
325 a copper-copper sulfate reference electrode and a volt meter. Readings  
326 obtained by Peoples' equipment and ICC-owned equipment were compared  
327 during the testing with results being essentially equal.

328 Q. **What was the purpose of the field testing?**

329 A. Staff was attempting to verify that information documented in Peoples' safety  
330 records was consistent with work actually performed on Peoples' distribution  
331 system.

332 Q. **Were any significant discrepancies identified between Peoples' records  
333 and the field testing?**

334 A. Yes. Approximately 184 test points that require annual testing were checked  
335 during the field testing. Although Peoples' records indicated that each one of  
336 these points had received remedial action and had adequate levels of cathodic  
337 protection, approximately one third of the tests conducted by Staff indicated  
338 inadequate levels of cathodic protection. Additionally, approximately 190  
339 locations were tested that require monitoring at ten-year intervals. Again,  
340 Peoples' records indicated that each of these locations had received remedial  
341 action after which they had adequate levels of cathodic protection. Of those 190  
342 locations, approximately one-half of the test points showed inadequate levels of  
343 cathodic protection, when Staff tested them. Of the 374 sites visited,  
344 approximately 10 percent of the test points could not be located by ICC Staff  
345 even with the assistance of Peoples personnel. (See Attachment A)

346 Q. **Please explain what you mean when you refer to test locations that “could**  
347 **not be located.”**

348 A. Staff conducted the field testing, to verify the records that Peoples kept in  
349 regards to corrosion monitoring. Staff chose approximately 400 specific locations  
350 referred to in Peoples records as test points that Peoples had used to monitor  
351 corrosion control. According to Peoples’ records each of the chosen points had  
352 been tested, had received remedial actions, and had ultimately tested as having  
353 adequate levels of cathodic protection. However, when Staff went to the location  
354 of the points referenced in Peoples records, about 10% of them either did not  
355 exist or were places from which it was impossible to conduct the test. In some  
356 cases the records described the test point as a test box located in the roadway  
357 but when Staff and Peoples personnel attempted to locate the box it was not  
358 visible and the surface of the road had not been disturbed in years. The fact that  
359 no test point could be found in the field indicates that Company personnel  
360 recorded data in the Company’s safety records without actually having access to  
361 the source of the data.

362 Q. **Can you provide examples of the various deficiencies described in your**  
363 **testimony?**

364 A. Yes. Attachment H contains examples of test points identified during the 2005  
365 follow-up audit. The first section demonstrates examples of test points that  
366 require testing on a ten-year rotation. The first column on the left hand side  
367 contains reference numbers assigned by Peoples that tie to geographical  
368 locations. The second column contains testing dates taken from the records  
369 provided by Peoples during the audit. The third column contains the pipe-to-soil

370 potentials entered into the Peoples record keeping system. The 0.00 readings in  
371 the third column indicated that an attempt was made to take a pipe-to-soil  
372 potential on the date identified in the second column but the individual making  
373 the attempt was not able to obtain the reading. The Peoples representatives  
374 involved in the record audit stated that this entry may be due to the test box  
375 being covered or missing or the test wires had become disconnected or  
376 removed. The second section contains examples of locations requiring annual  
377 monitoring where testing was attempted in 2003 but could not be performed and  
378 no attempt was made in 2004. The third section contains examples of test  
379 locations that had less than adequate levels of cathodic protection in 2003 and  
380 no corrective action as of March of 2005.

381 Q. **Have you provided a comprehensive list of the number and location of test**  
382 **points where Peoples is or has been in violation of either 49 CFR 192.465**  
383 **(a) or (d)?**

384 A. No. None of the lists is all inclusive. My intention was to provide a  
385 representative sampling of the violations at Peoples from 2003 to the present.

386 Q. **Have you completed your investigation of the violations?**

387 A. No. My investigation regarding these violations is ongoing. I sent data requests  
388 to Peoples requesting additional information on July 12, 2006. Peoples provided  
389 several boxes and 2 CDs of documents, totaling over 8,000 documents, which it  
390 states are responsive to the data requests. However, the volume and the  
391 disorganized nature of the production have made it virtually impossible to make  
392 meaningful use of the documents. I will continue to pursue this information from

393 Peoples. Additional information regarding these violations will be addressed in  
394 my rebuttal testimony.

395 **Conclusions**

396 Q. **Has Staff reached a conclusion as to why the field testing results are**  
397 **significantly different from the official records provided by Peoples?**

398 A. No. Staff performs field verifications of all natural gas operator records to verify  
399 the integrity and content of the written documentation provided. Variances or  
400 inconsistencies in the testing should be rare. In most cases, it should be  
401 explainable. To date, Peoples has not provided adequate explanation. As for the  
402 test points that could not be located, it appears that data was entered into  
403 Peoples' official record that could not have been obtained. Staff has determined  
404 that, due to the high rate of variance between the records provided and the field  
405 testing, coupled with the inability to locate numerous test points, Peoples'  
406 cathodic protection monitoring records are inaccurate and cannot be relied upon.

407 Q. **What is your recommendation to the Commission?**

408 A. I recommend that the Commission find that Peoples has violated 49 CFR  
409 §192.465(a) regarding corrosion monitoring, 49 CFR §192.465(d) regarding  
410 taking prompt remedial action to correct any deficiencies, and 49 CFR  
411 §192.13(c), regarding maintaining and following plans, procedures and programs  
412 necessary to comply with the minimum federal safety standards.

413 Q. **Under the Gas Pipeline Safety Act, what factors should be considered in**  
414 **determining the amount of penalty?**

415 For purposes of determining the amount of the penalty, Section 7(b) states:

416 ... the Commission shall consider the appropriateness of the penalty to  
417 the size of the business of the person charged, the gravity of the  
418 violation, and the good faith of the person charged in attempting to  
419 achieve compliance, after notification of a violation.  
420

421 Q **How would you describe the size of Peoples?**

422 A. Peoples can be considered a large natural gas distribution company. According  
423 to American Gas Association statistics, Peoples ranks 14<sup>th</sup> in the United States in  
424 residential customers and revenue. According to the Annual Report filed by  
425 Peoples with the Commission, its net utility operating income for 2004 was \$58,  
426 682,020.

427 Q. **How would you describe the gravity of this offense?**

428 A. Cathodic protection is intended to prevent corrosion on pipelines. When the  
429 protection is allowed to become ineffective for extended periods of time metal is  
430 lost from the pipe wall. Simply bringing the protective levels back into  
431 compliance with the CFR does not return the metal to the pipe wall. The failure  
432 to verify adequate levels of cathodic protection in a timely manner and delayed  
433 remedial actions when deficiencies are noted may have diminished the integrity  
434 of some sections of the Peoples natural gas system which could result in a failure  
435 and of loss of life or property.

436 Q. **Has People's maintained a good faith effort in trying to achieve  
437 compliance?**

438 A. No. Peoples has been repeatedly notified of its failure to be in compliance with  
439 the external corrosion control monitoring requirements, i.e., by letters on January  
440 30, 2004 and April 21, 2005 and by meetings with Staff. This violation has been  
441 ongoing in excess of two and one-half years. During that period of time, rather

442 than coming in to compliance the number of violations has increased. In July of  
443 2005, Peoples claimed to have taken remedial actions to bring the pipe  
444 segments with less than adequate levels of cathodic protection up to the level  
445 required by 49 CFR §192. Staff's record analysis and field review, which was  
446 conducted to verify the information in the Company's safety records, resulted in  
447 findings inconsistent with the Company's records. In fact, Staff inspectors were  
448 unable to physically locate test stations identified in Peoples' records. The high  
449 frequency of inconsistent records is unexplainable. These facts lead to the  
450 conclusion that Peoples has not acted in good faith to achieve compliance after it  
451 was notified of the violation.

452 Q. **Please explain the basis of your opinion that Peoples has not made a good**  
453 **faith effort to achieve compliance.**

454 A. The written response to the notice of noncompliance provided by Peoples on  
455 February 23, 2004, states:

456 *For the test readings that were not obtained within the timeframe in 2003*  
457 *there is nothing that can be done such that they will be in compliance*  
458 *during the next records audit performed by the ICC. PGL intends to treat*  
459 *those corrective actions with a higher priority in order to obtain readings*  
460 *during 2004.*

461 The March 2005 follow-up audit performed by Staff verified that PGL still had not  
462 performed the monitoring of the test points that had been missed in 2003. The  
463 2004 letter promised that these test points would be treated with a higher priority  
464 but they were now over two years over due for testing.

465 As noted in a Staff report dated October 19, 2005, a meeting was held with  
466 Peoples representatives in the Commission's Springfield offices on July 11,  
467 2005. Staff informed Peoples that a Staff report was being prepared for the  
468 Commission recommending a Citation Order be entered to determine whether  
469 civil penalties should be imposed on Peoples Gas. Mr. Ed Doerk, Vice President  
470 of Gas Operations, explained that Peoples Gas has taken remedial actions to  
471 bring pipe segments with less than adequate levels of cathodic protection up to  
472 the level deemed acceptable under 49 CFR Part 192 Appendix D criteria. The  
473 results of the 2006 record review and field testing not only indicated that the  
474 remedial actions were either not taken or inadequate but that some data entered  
475 into the official record keeping system could not have been obtained from the  
476 test location identified.

477 Q. **What penalties may be assessed against Peoples?**

478 A. Title 49 of Federal Regulation Chapter 60122, which was adopted by Section 7 of  
479 the Gas Pipeline Safety Act, allows for civil penalties of not more than \$100,000  
480 for each violation, for a maximum of \$1,000,000. Both the Gas Pipeline Safety  
481 Act & the federal regulations state that each day the violation persists is also a  
482 separate violation.

483 Q. **In this situation what would be considered a violation?**

484 A. Staff believes each corrosion control family not tested and each corrosion family  
485 found to have inadequate levels of protection with no remedial actions taken  
486 should be considered a separate violation. In the letter dated May 16, 2005,  
487 Peoples admits that over 3000 test points were out of compliance in calendar  
488 years 2003 and 2004 combined.

489 Q. **What is your recommendation as to what penalty should be assessed**  
490 **against Peoples?**

491 A. Given the magnitude and duration of this violation, Staff recommends the  
492 maximum penalty be imposed for the violations of 49 CFR Part 192.465(a) and  
493 49 CFR Part 192.465(d).

494 **Summary**

495 Q. **Please summarize your position.**

496 A. Staff concludes that Peoples Gas should be found in violation of Commission  
497 rules and subject to the maximum penalty as outlined above. Peoples, by its  
498 own admission in its letter(s) of February 23, 2004 and May 16, 2005, confirmed  
499 that it is not in compliance with Commission rules, has not been in compliance  
500 with Commission rules for years even though it was warned about the violations  
501 and claimed it was taking steps to cure the violations.

502 Q. **Does this conclude your direct testimony?**

503 A. Yes, it does.