Distribution Integrity Management Program (DIMP)

Inspection Form

For Operators of Gas Distribution Systems

For Requirements of 192.1005 – 192.1011

Version 9/23/2011

This inspection form is for the evaluation of a gas distribution integrity management program for all operators of gas distribution except operators of master meter or small liquefied petroleum gas (LPG) systems. The form contains questions related to specific regulatory requirements and questions which are strictly for informational purposes. The questions which are related to specific regulatory requirements are preceded by the rule section number which prescribes the applicable code citation for the question. The cell preceding informational questions states "information only".

S/Y stands for "Satisfactory" or "Yes", U/N stands for "Unsatisfactory" or "No", N/A stands for "Not Applicable", and N/C stands for "Not Checked". If an item is marked U/N, N/A, or N/C, an explanation must be included in the comments section.

Some inspection questions contain examples to further clarify the intent of the question. For example, question 5 asks, "Do the written procedures require the consideration of information gained from past design, operations, and maintenance (e.g. O&M activities, field surveys, One-Call system information, excavation damage, etc.)?" The list following "e.g." is not meant to be all inclusive or that all the items are required. Some of the items may not be applicable to an individual operator's system.

Some States require the operator to notify and send the State regulatory authority any changes to operator's plans and procedures. Operators in these states should also notify and send revisions of the DIMP plan to the State regulatory authority.

Operator Contact and System Information — Operator Information:

Name of Operator (legal entity):	City of Enumclaw
PHMSA Operator ID(s) Included in this Inspection:	4500
Type of Operator:	☐ Investor Owned ☒ Municipal ☐ Private ☐ LPG ☐ Other (e.g. cooperative)
States(s) included in this inspection:	Washington
Headquarters Address:	2041 Railroad Ave
Company Contact:	Ed Hawthorne
Phone Number:	253-615-5787
Email:	ehamthorne@ci.enumclaw.wa.us
Date(s) of Inspection:	February 19 – 20, 2013
Date of Report:	March 20, 2013

Persons Interviewed:

Persons Interviewed *(List the DIMP Administrator as the first contact)*	**Title**	**Phone Number**	**Email**
Ed Hawthorne	Gas manager	253-615-6787	ehawthorne@ci.enumclaw.wa.us

State or Federal Representatives:

Inspector Name & Agency	**Phone Number**	**Email**
Scott Rukke, Washington State UTC	360-664-1200	srukke@utc.wa.gov
Inspector Comments (optional):		

192.1005 What must a gas distribution operator do to implement this subpart?

Question No.	Rule §192	Description	S/Y	U/N	N/A	N/C
1	.1005	Was the plan written and implemented per the requirement of 192.1005 by 08/02/2011? OR For a gas system put into service or acquired after 08/02/2011, was a plan written and implemented prior to beginning of operation?	☒	☐	☐	☐
Inspector's Comments		Chapter 10 will keep records of previous DIMP plans.				
2	Information Only	Were commercially available product(s)/templates used in the development of the operator's written integrity management plan?	☒	☐	☐	☐
		Fully ☒ Partially ☐ Not at all ☐				
		Commercial product(s)/templates name if used: SHRIMP				
Inspector's Comments		Should add that SHRIMP was used for plan development. - added				
3	Information Only	Does the operator's plan assign responsibility, including titles and positions, of those accountable for developing and implementing required actions?	☒	☐	☐	☐
Inspector's Comments		Section 11.1				
4	.1007(a)(1)	Do the written procedures identify or reference the appropriate sources used to determine the following characteristics necessary to assess the threats and risks to the integrity of the pipeline: • Design (e.g. type of construction, inserted pipe, rehabilitated pipe method, materials, sizes, dates of installation, mains and services, etc.)?	☒	☐	☐	☐
		• Operating Conditions (e.g. pressure, gas quality, etc.)?	☒	☐	☐	☐
		• Operating Environmental Factors (e.g. corrosive soil conditions, frost heave, land subsidence, landslides, washouts, snow damage, external heat sources, business districts, wall-to-wall paving, population density, difficult to evacuate facilities, valve placement, etc.)?	☒	☐	☐	☐
Inspector's Comments		Take credit for extra leak surveys, bus districts HOS etc.				

192.1007(a) Knowledge of the System						
Question No.	**Rule §192**	**Description**	**S/Y**	**U/N**	**N/A**	**N/C**
5	.1007(a)(2)	Do the written procedures require the consideration of information gained from past design, operations, and maintenance (e.g. O&M activities, field surveys, One-Call system information, excavation damage, etc.)?	☒	☐	☐	☐
Inspector's Comments						
6	Information Only	Do the written procedures indicate if the information was obtained from electronic records, paper records, or subject matter expert knowledge (select all which apply)?				
		Electronic ☒ / Paper ☒ / SME ☒				
Inspector's Comments						
7	.1007(a)(3)	Does the plan contain written procedures to identify additional information that is needed to fill gaps due to missing, inaccurate, or incomplete records?	☒	☐	☐	☐
Inspector's Comments		Take credit for WAC rules				
8	.1007(a)(3)	Does the plan list the additional information needed to fill gaps due to missing, inaccurate, or incomplete records?	☒	☐	☐	☐
Inspector's Comments						
9	.1007(a)(3)	Do the written procedures specify the means to collect the additional information needed to fill gaps due to missing, inaccurate, or incomplete records (e.g., O&M activities, field surveys, One-Call System, etc.)?	☒	☐	☐	☐
Inspector's Comments						
10	.1007(a)(5)	Do the written procedures require the capture and retention of data on any new pipeline installed?	☒	☐	☐	☐
Inspector's Comments		11.1 section A				
11	.1007(a)(5)	Does the data required for capture and retention include, at a minimum, the location where the new pipeline is installed and the material from which it is constructed?	☒	☐	☐	☐
Inspector's Comments		Same section				
12	.1007(a)	Does the documentation provided by the operator demonstrate implementation of the element "Knowledge of the System"?	☒	☐	☐	☐
Inspector's Comments		Section Chapter 3 add SME input				
13	.1007(a)	Has the operator demonstrated an understanding of its system?	☒	☐	☐	☐

Inspector's Comments	

192.1007(b) Identify Threats

Question No.	Rule §192	Description	S/Y	U/N	N/A	N/C
14	.1007(b)	In identifying threats, do the written procedures include consideration of the following categories of threats to each gas distribution pipeline? • Corrosion • Natural Forces • Excavation Damage • Other Outside Force Damage • Material or Welds • Equipment Failure • Incorrect Operation • Other Concerns	☒ ☒ ☒ ☒ ☒ ☒ ☒ ☒	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Inspector's Comments						
15	.1007(b)	Did the operator consider the information that was reasonably available to identify existing and potential threats?	☒	☐	☐	☐
Inspector's Comments						
16	Information Only	Does the plan subdivide the primary threats into subcategories to identify existing and potential threats?	☒	☐	☐	☐
Inspector's Comments						
17	.1007(b)	In identifying threats did the information considered include any of the following? • Incident and leak history ☒ yes ☐ no • Corrosion control records ☒ yes ☐ no • Continuing surveillance records ☒ yes ☐ no • Patrolling records ☒ yes ☐ no • Maintenance history ☒ yes ☐ no • Excavation damage experience ☒ yes ☐ no • Other – Describe _____ ☐ yes ☐ no	☒	☐	☐	☐
Inspector's Comments						
18	Information Only	Does the plan categorize primary threats as either "system-wide" or "localized"?				
		All System-wide ☒ / All Localized ☐ / Some of Both ☐ / Not Identified ☐				
Inspector's Comments						
19	Information Only	Do the written procedures consider, in addition to the operator's own information, data from external sources (e.g. trade associations, government agencies, or other system operators, etc.) to assist in identifying potential threats?	☒	☐	☐	☐
Inspector's Comments		Should add in the Dupont pipe issue and reports from outside agencies.				
20	.1007(b)	Does the documentation provided by the operator demonstrate implementation of the element "Identify Threats"?	☒	☐	☐	☐

Inspector's Comments	

192.1007(c) Evaluate and Rank Risk

Question No.	Rule §192	Description	S/Y	U/N	N/A	N/C
21	Information Only	Was the risk evaluation developed fully or in part using a commercially available tool?				
		Fully ☒ Partially ☐ Not at all ☐				
		Commercial tool name if used: SHRIMP				
Inspector's Comments						
22	.1007 (c)	Do the written procedures contain the method used to determine the relative importance of each threat and estimate and rank the risks posed? Briefly describe the method.	☒	☐	☐	☐
Inspector's Comments						

		For questions 23 – 25, do the written procedures to evaluate and rank risk consider:	Corrosion	Natural Forces	Excavation Damage	Other outside Force Damage	Material or Welds	Equipment Failure	Incorrect Operation	Other Concerns
23	.1007 (c)	Each applicable current and potential threat?	s	s	s	s	s	s	s	s
24		The likelihood of failure associated with each threat?	s	s	s	s	s	s	s	s
25		The potential consequence of such a failure?	s	s	s	s	s	s	s	s
		Mark each box above with one of the following: S for "Satisfactory", U for "Unsatisfactory", N/A for "Not Applicable" and N/C for "Not Checked".								
Inspector's Comments										

26	.1007 (c)	If subdivision of system occurs, does the plan subdivide the system into regions with similar characteristics and for which similar actions are likely to be effective in reducing risk? Briefly describe the approach. System is not subdivided	☐	☐	☒	☐
Inspector's Comments		System is small and not subdivided.				
27	Information Only	Is the method used to evaluate and rank risks reasonable?	☒	☐	☐	☐
Inspector's Comments						
28	.1007(c)	Are the results of the risk ranking supported by the risk evaluation model/method?	☒	☐	☐	☐
Inspector's Comments						
29	.1007(c)	Did the operator validate the results generated by the risk evaluation model/method? Briefly describe. SME's reviewed the risk ranking results	☒	☐	☐	☐
Inspector's Comments		The risk ranking results were reviewed by SME's.				
30	.1007(c)	Does the documentation provided by the operator demonstrate implementation of the element "Evaluate and Rank Risk"?	☒	☐	☐	☐

Inspector's Comments	

192.1007 (d) Identify and implement measures to address risks

Question No.	Rule §192	Description	S/Y	U/N	N/A	N/C
31	.1007 (d)	Does the plan include procedures to identify when measures, beyond minimum code requirements specified outside of Part 192 Subpart P, are required to reduce risk?	☒	☐	☐	☐
Inspector's Comments						
32	.1007 (d)	When measures, beyond minimum code requirements specified outside of Part 192 Subpart P, are required to reduce risk, does the plan identify the measures selected, how they will be implemented, and the risks they are addressing?	☒	☐	☐	☐
Inspector's Comments						
33	.1007 (d)	Complete the table at the end of this form: *Threat Addressed, Measure to Reduce Risk, and Performance Measure*				
Inspector's Comments						
34	.1007 (d)	Does the plan include an effective leak management program (unless all leaks are repaired when found) 1. Locate the leaks in the distribution system; ☒ 2. Evaluate the actual or potential hazards associated with these leaks; ☒ 3. Act appropriately to mitigate these hazards; ☒ 4. Keep records; and ☒ 5. Self-assess to determine if additional actions are necessary to keep people and property safe. ☒	☒	☐	☐	☐
Inspector's Comments						
35	.1007(d)	Does the documentation provided by the operator demonstrate implementation of the measures, required by Part 192 Subpart P, to reduce risk?	☒	☐	☐	☐
Inspector's Comments		Reviewed atmospheric corrosion surveys to ensure that CP reads are being taken.				

192.1007(e) Measure performance, monitor results, and evaluate effectiveness

Question No.	Rule §192	Description	S/Y	U/N	N/A	N/C

	.1007(e)	i) Number of hazardous leaks either eliminated or repaired, categorized by cause?	ii) Number of excavation damages?	iii) Number of excavation tickets received by gas department ?	iv) Total number of leaks either eliminated or repaired categorized by cause?	v) Number of hazardous leaks either eliminated or repaired, categorized by material?	vi) Any additional measures the operator determines are needed to evaluate the effectiveness of the IM program in controlling each identified threat?
36	Does the plan contain written procedures for how the operator established a baseline for each performance measure?	S	S	S	S	S	S
37	Does the plan establish a baseline for each performance measure?	S	S	S	S	S	S
38	Does the operator have written procedures to collect the data for each performance measure?	S	S	S	S	S	S
39	Do the written procedures require the operator to monitor each performance measure?	S	S	S	S	S	S

Mark each box above with one of the following: S for “Satisfactory”, U for “Unsatisfactory”, N/A for “Not Applicable” and N/C for “Not Checked”.

Inspector’s Comments						
40	.1007 (e)	When measures are required to reduce risk, do the written procedures provide how their effectiveness will be measured?	☒	☐	☐	☐
Inspector’s Comments						
41	Information Only	Can the performance measures identified by the operator in the plan be counted, monitored, and supported?	☒	☐	☐	☐
Inspector’s Comments						
42	.1007(e)	Does the documentation provided by the operator demonstrate implementation of the element “Measure Performance, Monitor Results, and Evaluate Effectiveness”?	☒	☐	☐	☐
Inspector’s Comments		Need to quantify their baseline numbers				

192.1007(f)Periodic Evaluation and Improvement						
Question No.	**Rule §192**	**Description**	**S/Y**	**U/N**	**N/A**	**N/C**
43	.1007 (f)	Do the written procedures for periodic review include: a. Frequency of review based on the complexity of the system and changes in factors affecting the risk of failure, not to exceed 5 years? b. Verification of general information (e.g. contact information, form names, action schedules, etc.)? c. Incorporate new system information? d. Re-evaluation of threats and risk? e. Review the frequency of the measures to reduce risk? f. Review the effectiveness of the measures to reduce risk? g. Modify the measures to reduce risk and refine/improve as needed (i.e. add new, modify existing, or eliminate if no longer needed)? h. Review performance measures, their effectiveness, and if they are not appropriate, refine/improve them?	☒ ☒ ☒ ☒ ☒ ☒ ☒ ☒	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Inspector's Comments		a. Annually b.				
44	Information Only	Does the plan contain a process for informing the appropriate operating personnel of an update to the plan?	☒	☐	☐	☐
Inspector's Comments						
45	Information Only	Does the plan contain a process for informing the appropriate regulatory agency of a significant update to the plan?	☒	☐	☐	☐
Inspector's Comments						
46	.1007(f)	Does the documentation provided by the operator demonstrate implementation of the element "Periodic Evaluation and Improvement"?	☒	☐	☐	☐
Inspector Comments						

192.1007(g) Report results						
Question No.	**Rule §192**	**Description**	**S/Y**	**U/N**	**N/A**	**N/C**
47	.1007(g)	Does the plan contain or reference procedures for reporting, on an annual basis, the four measures listed in 192.1007(e)(1)(i) through (e)(1)(iv) to PHMSA as part of the annual report required by § 191.11 and the State regulatory authority?	☒	☐	☐	☐
Inspector's Comments						
48	Information Only	When required by the State, does the plan identify the specific report form, date, and location where it is to be submitted?	☒	☐	☐	☐
Inspector's Comments						
49	.1007(g)	Has the operator submitted the required reports?	☒	☐	☐	☐
Inspector's Comments		Yes. The 2011 report will need to be revised. Missing two leaks.				

192.1009 What must an operator report when mechanical fittings fail?						
Question No.	**Rule §192**	**Description**	**S/Y**	**U/N**	**N/A**	**N/C**
50	.1009	Does the operator have written procedures to collect the information necessary to comply with the reporting requirements of 192.1009?	☒	☐	☐	☐
Inspector's Comments						

192.1011 What records must an operator keep?						
Question No.	**Rule §192**	**Description**	**S/Y**	**U/N**	**N/A**	**N/C**
51	.1011	Does the operator have written procedures specifying which records demonstrating compliance with Subpart P will be maintained for at least 10 years?	☒	☐	☐	☐
Inspector's Comments		Section 10				
52	.1011	Does the operator have written procedures specifying that copies of superseded integrity management plans will be maintained for at least 10 years?	☒	☐	☐	☐
Inspector's Comments						
53	.1011	Has the operator maintained the required records?	☒	☐	☐	☐

Inspector's Comments	Reviewed previous DIMP plans. Currently the plan is on revision number two. Plan revision one is dated July 2010.

Table 1: Threat Addressed, Measure to Reduce Risk, and Performance Measure

For the top five highest ranked risks from the operator's risk ranking list the following:

- Primary threat category (corrosion, natural forces, excavation damage, other outside force damage, material or weld, equipment failure, incorrect operation, and other concerns);
- Threat subcategory (GPTC threat subcategories are acceptable. Try to be specific. Example, failing bonnet bolts of gate valve, manufacturer name, model #);
- Measure to reduce the risk (list the one measure the operator feels is most important to reducing the risk);
- Associated performance measure.

	Primary Threat Category	Threat Subcategory, as appropriate	Measure to Reduce Risk	Performance Measure
1	Excavation damage	Failure to follow dig laws by contractors	Increased training frequency	Leaks numbers caused by third party damages
2	Corrosion	Corrosion of non-protected service lines	Replacement, increased leak frequency, increased interrupted potential reads on entire system	Baseline leak numbers due to corrosion and numbers of unprotected services found during CP interruption.
3				
4				
5				

Other Inspector Comments	This is a small municipal system with few threats. Third party damage is the number one cause of leaks. Although non-cathodically protected steel wrapped service lines were present in the system, Enumclaw has replaced all non-protected services as of the date of this inspection. Since many of the services that were found with no protection had dresser couplings that can isolate the service from it's CP source, Enumclaw has elected to reduce this threat by conducting an interrupted cathodic protection survey every 3 years to find any services that may have lost their source CP. There are currently no known services without CP.