

Attachment A

FIRST (1ST) CAUSE OF ACTION (OVERPRESSURE) - See Complaint

SECOND (2nd) CAUSE OF ACTION (CORROSION CONTROL - MONITORING)

Whatcom District [9.1]:

9.1 **Finding(s):** Cascade exceeded the frequency interval for gas pipeline atmospheric corrosion control monitoring inspection. No records are available for the Bellingham shut-down Section I009 (install approx. 1957-60) of approximately 2,570 services. This section was inadvertently excluded from atmospheric corrosion control monitoring since installation.

Cascade's reply to the above finding, dated 01.13.10, identified that the last atmospheric corrosion survey inspection 2570 services designated Section I009 in Bellingham was on 12.01.03. Cascade identified that upon discovery of their error they began the survey on 09.23.09 and completed it on 12.25.09.

Cascade's reply included 387 pages of services for shut down Section I009. None of the pages submitted included the following:

- a. The signature of the person who completed the survey,
- b. The date the survey work was completed,
- c. The condition of each of the services.

This is a violation of WAC 480-93-018(4), which requires the Company to record and maintain records of the actual value of any required reads, tests, surveys or inspections performed. The records must include the name of the person who performed the work and the date the work was performed. The records must also contain information sufficient to determine the location and facilities involved. Examples of the values to be recorded include, but are not limited to, pipe to soil potential reads, rectifier reads, pressure test levels, and combustible gas indicator reads. A gas pipeline company may not record a range of values unless the measuring device being used provides only a range of values.

This is also a violation of 480-93-180(1), failure to follow Cascade procedures (CP 754.033), because the Company failed to record the date of the survey on each page, the person completing the survey failed to record their signature, and they failed to record a condition/grade for each service that was surveyed.

Kitsap District [17.2]:

17.2 **Finding(s):** Cascade atmospheric corrosion monitoring records are insufficient to demonstrate compliance. Records show the last atmospheric corrosion inspection occurred on the following dates thereby exceeding the required inspection frequency.

a.	3975 State Hwy 3 W	08.30.04
b.	3987 State Hwy 3 W	08.30.04
c.	6204 W State Hwy 3	08.30.04
d.	4121 State Hwy 16 W	08.30.04
e.	4135 State Hwy 16 W	08.30.04
f.	228 S Marion Ave.	12.21.05

Tri-Cities District [25, 26]**[25]** 49 C.F.R. § 192.481(a) and (c) – Atmospheric Corrosion Control: Monitoring

Cascade failed to timely complete its corrosion control monitoring for Kennewick and Walla Walla. This violates 49 C.F.R. § 192.481(a), which requires Cascade to monitor its system for corrosion every three years, with intervals not to exceed 39 months; and 49 C.F.R. § 192.481(c), which requires that if Cascade finds atmospheric corrosion during and inspection, the Company protect against corrosion as required by 192.479

This is a repeat violation from Dockets PG-031597 and PG-031598.

- Docket 031597 and 031598 reads, “There was no clear documentation showing that aboveground components are checked for atmospheric corrosion as required in 49 CFR 192.481 Atmospheric Corrosion Control: Monitoring. This requirement is currently addressed by only documenting problems found. This does not prove that aboveground piping was inspected within the required three-year interval.”
- Docket 021297 reads, “Staff found that Cascade did not have records supporting atmospheric corrosion surveys were being done. Cascade’s letter of response dated October 31, 2001, for standard pipeline safety inspection docket # UG-010113 stated; “ We will modify our atmospheric corrosion survey procedure to produce sufficient records to demonstrate our compliance with these requirements. We anticipate completion of this and implementation by December 31, 2001.” This has yet to be completed.

Atmospheric Corrosion records Cascade provided to Staff on October 27, 2009, show that Cascade exceeded the maximum 39 months to complete their survey for the following shut down locations in the Tri-Cities:

Shutdown Area	Completion		Completion	
	2005	By	2008	By
H008	08.16.05	CC	11.18.08	Dave C & DC
H005	08.17.05	CC	11.18.08	Dave C & DC
H006	08.15.05	CC	11.18.08	Dave C & DC
H004	08.15.05	CC	11.18.08	Dave C & DC
H011	08.15.05	CC	11.18.08	Dave C & DC
I004	08.02.05	DH/CC	12.31.08	Jeff/Don/Roger/Dave
I001	08.10.05	DH/CC	12.16.08	Jeff/Don/Dave

I002	07.21.05	DH	11.20.08	Jeff
I006	08.03.05	CC	11.18.08	Dave C & DC
I005	08.05.05	CC	11.18.08	Dave C & DC
I042	08.05.05	CC	11.18.08	Dave C & DC
I029	08.05.05	CC	11.18.08	Dave C & DC
I010	08.05.05	CC	11.18.08	Dave C & DC
I007	08.03.05	CC	12.09.08	RJ
I031	08.03.05	DH	11.18.08	Dave C & DC
I009	08.03.05	DH	11.18.08	Dave C & DC
I038	08.04.05	DH	12.22.08	Dave C & DC
I020	08.04.05	DH	12.22.08	Dave C & DC
I019	08.04.05	DH	12.22.08	Dave C & DC
I021	08.04.05	DH	12.22.08	Dave C & DC
I022	08.08.05	DH	12.22.08	Dave C & DC
I023	08.08.05	DH	12.22.08	Dave C & DC
I028	08.08.05	DH	12.22.08	Dave C & DC
I039	08.09.05	DH	12.22.08	Dave C & DC

Staff also notes the following:

- Dates identified as completion dates on atmospheric corrosion records provided on 10.27.09 show differing dates from those provided on 10.31.08.
- All atmospheric corrosion documentation provided on 7 atmospheric corrosion pages 10.31.08 do not identify the completion date but rather the date the page was printed and does not identify the name of the employee completing the work. Number of services per page approx. $35 (7) = 245$.
- Based upon Cascade's General Manager's statement during the 2008 inspection (documented in my inspection notes) it was identified Cascade had not kept records documenting the atmospheric corrosion survey completion for 2004 and 2005. But on October 27, 2009, we were provided with records showing atmospheric corrosion survey completion for Pasco in 2004 and Kennewick in 2005.
- The atmospheric corrosion survey records for Pasco 2004 and 2007 have the same completion date for many of the shutdown sections and by the same person.
- Cascade provided Staff with total miles of main in Tri-Cities in 2006 = 542 with 22,799 total customers. Total miles of main in Tri-Cities in 2008 = 542 with 28,297 total customers.

THIRD (3rd) CAUSE OF ACTION (CORROSION CONTROL - RECORDS)**Whatcom County District [9.3]:**

9.3 Finding(s): Atmospheric corrosion was noted at the following locations and/or records do not indicate that Cascade has inspected pipeline for atmospheric corrosion of pipeline on the inside of welded or tack-welded pipe support slippers. Examples follow:

1. 2500 Meridian, Bellingham - 481(a) and (b)
2. 1411 Girard, Bellingham (Kentucky Fried Chicken) – 481(a) and (b)
3. 901 Dupont St., Bellingham (Dupont Cleaners) – 481 (b)
4. 5744 Ferndale, Ferndale (Ferndale Grain) – 481(b)
5. Alley N. of Front St., Lynden W. of Meter #179841 - 481 (b) Cascade did not remediate location identified in report and photos – Staff identified a meterless riser.
6. Judson St. Alley S. of Front St. E. of 511 Front St., Lynden (2 meter manifold) - 481 (b)
7. Judson St. Alley S. of Front St., Lynden (Meter 648163 - 481 (b)
8. Judson St. Alley S. of Front St., Lynden (11-12 meter manifold) - 481 (b)
9. Aldrich Rd. & Larrabee Rd., Bellingham to Ferndale line - 481(b)
10. 3219 Meridian St., Bellingham – 481(a) and (b)
11. 2801 Meridian & W. Illinois NW Corner (Assoc. Implant & Cosmetic Dentistry), Bellingham - 481(a) and (b)
12. Meter #572694, Bellingham – - 481(a) and (b)
13. 2615 Meridian, Bellingham - 481(a) and (b)
14. 2710 Meridian, Bellingham – 481(a) and (b)
15. Meter #616227, Bellingham – 481(a) and (b)
16. Meter 631409, Bellingham to Ferndale line – 481(b)
17. Aldrich Rd. & Larrabee Rd., Bellingham to Ferndale – okay to remove already listed in #9 above
18. Judson St. Alley S. of Front St. W. of Meter #255793, Lynden – 481(b)
19. 523 Front St., Lynden Meter #585429 - 481 (b)
 - a. Tack-welded slipper for pipe support
20. Judson St. Alley S. of Front St., Lynden Meter #186095-481 (b)
 - a. Tack-welded slipper for pipe support
21. Judson St. Alley S. of Front St. W. of Meter #255793, Lynden
 - a. Welded slipper for pipe support - 481(b)

Aberdeen District [4]:

4 Finding(s): The following Substructure Damage/Leak Reports fail to identify the condition of exposed metallic pipe:

- a. Incident 6113 at 105 S. 12th St. #7, Shelton - steel service installation/replacement.
1. Incident 6522 at 125 Academy St. S., Montesano – steel service repair.

Tri-Cities District [26]

[26] Staff reviewed 23 locations for atmospheric corrosion records in Kennewick at the time of inspection. Only 4 of the 23 records produced at the time of inspection showed that they had been surveyed. Staff did not request records for Pasco because Cascade had identified they did not have records proving completion of the entire atmospheric corrosion survey and only recorded those locations where problems were noted.

On 10.31.08 Cascade provided Staff 7 pages of atmospheric corrosion survey records for Kennewick.

- These records are a violation of WAC 480-93-018(4) Each gas pipeline company must record and maintain records of the actual value of any required reads, tests, surveys or inspections performed. The records must include the name of the person who performed the work and the date the work was performed.
 - These records do not identify the date of survey completion, they show the date the page was printed out.
 - These records do not identify the person that completed the survey.
 - In reviewing the atmospheric corrosion summary sheet provided by Keith Meissner on October 27, 2009, the dates identified as completion dates appear to be the dates the pages were printed out for Pasco and Kennewick.
 - Cascade identifies that Pasco 2004 atmospheric corrosion surveys were completed on December 3, 6, 8, 10, 14, 16, and 20th and in 2007 atmospheric corrosion surveys were completed on September 18, 20, 28, October 3, 8, and 11th.
 - As noted earlier, Staff did not request Pasco records because Cascade indicated the Company did not keep records for this year. This was explained during the inspection and in Staff's email requesting atmospheric corrosion records on 10.20.08.
 - The records suggest Cascade surveyed for atmospheric corrosion a very large number of subservices in 7 days in Pasco in 2004 (28 shut areas) and in 6 days in Pasco in 2007 (23 shut areas). Similar phenomenon in Kennewick in 2005 (surveys done in 10 days (27 shut areas) and six days in 2008 (28 shut areas) by the same employees.
 -

The following locations were specifically reviewed by Staff for completion atmospheric corrosion survey for 2005. The below records review occurred at time of inspection unless otherwise noted:

1. 321 W. Kennewick (next reg. in alley of 11 S. Dayton. (319) – atmospheric corrosion. Meter reader required corrective action per last atmospheric corrosion survey completed 01.03.05. No action taken.
 - Records provided on 10.31.08 do not show this address.
 - No records provided show atmospheric corrosion remediation.

2. 313 W. Kennewick – Alley – no coating at interface – atmospheric corrosion. Last atmospheric corrosion survey completed 01.03.05. Meter reader stated okay – no corrective action. Meter reader route # 4580170.
 - Records provided on 10.31.08 do not show this address.
 - No records provided show atmospheric corrosion remediation.
3. 307 or 309 W. Kennewick – Alley – Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
4. 217 W. Kennewick – Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
5. 213 W. Kennewick – Alley – Bad wrap. Last atmospheric corrosion survey completed 01.03.05. Meter reader required corrective action – paint. No action taken. Meter reader route # 4580210.
 - Records provided on 10.31.08 do not show this address.
 - No records provided show atmospheric corrosion remediation.
6. 13 S. Cascade – Missing wrap. Last atmospheric corrosion survey completed 01.03.05. Meter reader route# 4580180 – requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.21.08 do not show this address.
7. 205 W. Kennewick – missing wrap. – requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
8. 113 W. Kennewick (Bldg. W. of 113) – No interface coating/atmospheric corrosion/meterless riser in tree stump. Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
9. W of 105 W. Kennewick. Chain & metal grate on meter set. Meter reader route # 4580250. Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
10. 105 W. Kennewick. Corrosion issue – installation of plastic pop bottle top to keep separation of customer riser and meter casing. Riser impinging upon casing causing stress. GM remediated by removing pop bottle top and kicking customer riser until a small separation existed between the two. This CP remediation technique is not identified in Cascade O&M manual. Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
11. 100 W. Kennewick – Requested atmospheric corrosion information – none provided or available.
 - Records provided on 10.31.08 do not show this address.
12. 202 E. Columbia Dr. – damaged wrap.. Requested atmospheric corrosion information – none provided or available. Meter reader route# 4605460
 - Records provided on 10.31.08 do not show this address.
13. 220 E. Columbia. atmospheric corrosion and buried valve. Couldn't get in – no evidence of following their unable to access procedure. Requested atmospheric corrosion information – none provided or available. Meter reader route#4605650

- Records provided on 10.31.08 do not show this address.
14. 207 E. Columbia Dr. – atmospheric corrosion. Requested atmospheric corrosion information – none provided or available. Meter reader route# 4572550 & 4572554.
- Records for 207 W. Columbia Dr. provided on 10.31.08 show survey list printed 01.03.05 but no employee name or completion date.
 - atmospheric corrosion records provided on 10.27.09 show this area (I004) completion date as 08.02.05.
15. 305 E. Columbia Dr. – Requested atmospheric corrosion information – none provided or available.
- Records provided on 10.31.08 do not show this address.
16. 221 E. Columbia Dr. – atmospheric corrosion – Bare metal, no coating on piping. Meter partially buried/buried. Requested atmospheric corrosion information – none provided or available. Meter reader #4607600.
- Records provided on 10.31.08 show survey list print date 01.03.05 but no employee name or completion date.
 - atmospheric corrosion records provided on 10.27.09 show this area (I004) completion date as 08.02.05.
17. 2825 W. Kennewick Ave. – Safeway Building. – No interface wrap/atmospheric corrosion/no CP read provided due to all concrete surrounding riser. Requested atmospheric corrosion information – none provided or available. Meter reader #4607600.
- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
 - The records provided 10.31.08 show “Safeway Store #335” checked for atmospheric corrosion but there are approximately 4 separate services to this strip mall some with meter mainfolds – unknown whether all were surveyed.
18. 3001 W. Kennewick Ave. – atmospheric corrosion on tack-welded supports. Requested atmospheric corrosion information – none provided or available. Meter reader # 4530040.
- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
19. 2905 W. Kennewick Ave. – Safeway Bldg. – Damaged wrap. Meter reader Route#4530032 Requested atmospheric corrosion information – none provided or available.
- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
20. 2825 W. Kennewick Ave. – Safeway Bldg. – atmospheric corrosion – Duct taped flanges. Meter reader# 4530025 Requested atmospheric corrosion information – none provided or available at time of inspection.

- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
 - The records provided 10.31.08 show “Safeway Store #335” checked for atmospheric corrosion but there are approximately 4 separate services to this strip mall some with meter mainifolds – unknown whether all were surveyed.
21. 128 (3017) W. Kennewick Ave. – Safeway Building – atmospheric corrosion/damaged wrap/located immediately at bldg. exhaust. Meter reader route #4530045 Requested atmospheric corrosion information – none provided or available.
- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
 - The records provided 10.31.08 show Big Lots Stores, Inc. checked for atmospheric corrosion but there are approximately 4 separate services to this strip mall some with meter mainifolds – unknown whether all were surveyed.
22. 2825 W. Kennewick Ave. – Damaged wrap/tack welded supports/atmospheric corrosion. Meter reader route# 4530025. Requested atmospheric corrosion information – none provided or available.
- Records provided on 10.31.08 show survey list print date 08.02.05 but no employee name or completion date.
 - atmospheric corrosion Records provided on 10.27.09 show this area (I001) completion date as 08.10.05.
 - The records provided 10.31.08 show “Safeway Store #335” checked for atmospheric corrosion but there are approximately 4 separate services to this strip mall some with meter mainifolds – unknown whether all were surveyed.
23. 1500 S. Oak St. – atmospheric corrosion. Four services. Requested atmospheric corrosion information – none provided or available.
- Records provided on 10.31.08 show survey list print date 01.03.05 but no employee name or completion date.
 - atmospheric corrosion records provided on 10.27.09 show this area (I004) completion date as 08.02.05.

Finding(s): The following are examples of locations which have atmospheric corrosion issues:

- | | | |
|----|--------------------------------|----------------------------|
| a. | 11 S. Dayton, Kennewick | Damaged wrap |
| b. | 321 W. Kennewick, Kennewick | Coating missing or damaged |
| c. | 313 W. Kennewick, Kennewick | No interface coating |
| d. | 213 W. Kennewick, Kennewick | Damaged wrap |
| e. | 13 S. Cascade, Kennewick | Missing wrap |
| f. | 205 W. Kennewick, Kennewick | Missing wrap |
| g. | 113 W. Kennewick, Kennewick | No interface coating |
| | | Coating missing or damaged |
| h. | 202 E. Columbia Dr., Kennewick | Damaged wrap |

i.	220 E. Columbia Dr., Kennewick	Coating missing or damaged Access issues identified by GM Buried valve
j.	207 E. Columbia Dr., Kennewick	Coating missing or damaged
k.	221 E. Columbia Dr., Kennewick	No Coating Partially buried meter
l.	2825 W. Kennewick Ave., Kennewick	No interface coating
m.	2825 W. Kennewick Ave., Kennewick West End of complex	No interface coating
n.	3001 W. Kennewick Ave., Kennewick	Unable to examine pipe coating at tack- welded pipe supports
o.	2905 W. Kennewick Ave., Kennewick	Damaged wrap
p.	128 W. Kennewick Ave., Kennewick	Damaged wrap
q.	Riser E. of 128 W. Kennewick Ave., Kennewick	Damaged wrap Unable to examine pipe coating at tack-welded pipe supports
r.	43601 S. Finley Rd., Finley Odorizer	Coating missing or damaged Coating issues under supports attached to pipe No interface coating
s.	222604 E. Game Farm Rd., Finley	Coating missing or damaged
t.	222608 E. Game Farm Rd., Finley	Coating missing or damaged
u.	Riser S. of 21 E. Main St., Walla Walla (Touch of Class S. of Darrah's)	Damaged wrap
v.	115 E. Main St., Walla Walla	Damaged wrap
w.	1 E. Alder St., Walla Walla	No interface coating
x.	16 E. Main St., Walla Walla	No interface coating
y.	Riser for Meter #194891, Walla Walla	Damaged wrap

FOURTH (4th) CAUSE OF ACTION (GAS LEAK SURVEYS)**Whatcom District [4, 5]:**

4.1 Finding(s): Leak survey records lack sufficient documentation to verify that leak surveys occurred over the pipeline. Leak surveys have been completed utilizing maps which contain errors. For the following area and services, Cascade either 1) mapped but not marked them as having been leak surveyed, or 2) not mapped and not marked them as having been leak surveyed. Examples follow:

- a. 2007 Leak Survey - Section 6 in Ferndale
- b. 2008 Leak Survey in Lynden
 1. 300 Stremler Dr.
 2. 205 British Columbia Ave.
 3. 411 17th St
 4. 412 17th St.
- c. 2009 Leak Survey in Lynden
 1. 300 Stremler Dr.
 2. 305 Stremler Dr.
 3. 1729 D St.
 4. 205 British Columbia Ave.
 5. 411 17th St.

4.2 Finding(s): Records do not indicate that leak surveys were completed for aboveground piping sections of all Cascade elevated/raised services between the service valve and customer piping, such as the service located at 108 Front St., Lynden.

5 See Complaint

Kitsap District [10]: See Complaint

Aberdeen District [14, 15]:

14 Finding(s): The documentation provided to Staff for review for third party damage special leak surveys is insufficient.

- a. Incident # 6522; 07.25.08 – 232 N. Talbot St., Montesano - Cascade records identify that the service was repaired on 07.29.08 but no leak survey records were provided showing Cascade performed leak survey from the point of damage to the service tie-in.
- b. Incident # 6740; 10.17.08 – 1502 Riverside, Hoquiam - remains a violation of - 188(5)(f) Cascade leak records did not show that Cascade performed a leak survey from the point of damage to the service tie-in.

15.2 Finding(s): The documentation provided to Staff for review of special leak surveys lacks sufficient detail. Examples follow:

- a. 232 N. Talbot St., Montesano – 07.25.08
 - i. No map
 - ii. No survey results
 - iii. No survey method identified
 - iv. No name of person who performed survey
 - v. No date identifying when survey was done
 - vi. No equipment SN identified
- b. 321 Emerson Ave., Hoquiam – 10.13.08
 - i. No equipment SN identified
- c. Shelton Matlock Rd. R-12
 - i. No name of person who performed follow-up survey – 01.14.08
 - ii. No name of person who performed follow-up survey – 01.16.08
 - iii. No name of person who performed follow-up survey – 02.01.08
 - iv. No instrument tracking or identification number – 02.01.08
 - v. No survey method – 02.01.08
 - vi. No name of person who performed follow-up survey – 02.11.08
 - vii. No name of person who performed follow-up survey – 02.19.08

Tri-Cities District [11.13, 14, 15.2, 15.3, 18, 19]:

11.13 Finding(s): Cascade did not follow their procedures for evaluation, investigation and documentation of underground leaks. Records indicate that Cascade leak responders did not document the *perimeter* of the underground leak area at the following locations:

- a. 1527 Thayer, Richland
- b. 1503 Wright, Richland
- c. 648 Cottonwood Dr., Richland
- d. 3184 Willow Point Dr., Richland
- e. 202 Kranichwood Ct., Richland
- f. 7325 W. Deschutes #B, Kennewick
- g. 5307 Texada Ln., Pasco
- h. 30 S. Vancouver St., Kennewick
- i. 6307 W. Rio Grande Ave., Kennewick
- j. 404 S. Dawes St., Kennewick

14 – See Complaint

15.2 Finding(s): Cascade did not provide or was unable to provide calibration records for FI & Combustible Gas Indicator equipment used for leaks at the following locations:

- a. Sycamore & Lewis, Pasco
- b. 1503 Wright Ave., Richland
- c. 1527 Thayer, Richland

15.3 – See Complaint

18. WAC 480-93-188 – Gas Leak Surveys

Cascade failed to keep leak survey records that contained the instrument tracking or identification number on its High Occupancy structure leak surveys for the Tri-Cities during 2007 and 2008. Cascade also failed to keep leak survey records that contained an accurate description of their system by using maps that did not include all main and services for its High Occupancy structure leak surveys in the Tri-Cities for 2007 and 2008.

Cascade failed to survey the following High Occupancy structures during an annual business district leak survey in 2008. Each of these High Occupancy's is missing (see - 188(5)(a) through (f).

- 7415 W. Canal Dr.;
- 7011 W. Canal Dr.;
- 6807 W. Canal Dr.;
- 6705 W. Canal Dr.;
- 6603 W. Canal Dr.;
- 6505 W. Canal Dr.;
- 6511 W. Canal Dr.; and
- the main running east to west from W. Grandridge Blvd. to N. Kellogg St., all in Kennewick, WA.

Records were not provided showing that the following High Occupancy structures were leak surveyed either as an High Occupancy or an annual business district leak survey for 2007 and 2008 and the High Occupancy records provided were missing the instrument tracking or identification number required by 188(5)(f):

- 321 N. Columbia Center Blvd. #C, Kennewick – Batteries Plus – Active
- 321 N. Columbia Center Blvd. #B, Kennewick – Crosspointe Assoc/Windermere
- 321 N. Columbia Center Blvd. #A, Kennewick – Fusion Café/dba Express Grill
- 2500 W. 4th Ave., Kennewick – Grace United Reformed Church

Records were not provided which would identify that the following High Occupancy structures were surveyed either as a High Occupancy or an annual business district leak survey for 2007 and 2008.

[19]

WAC 480-93-188(6)(b) Cascade audit failed to identify and correct inconsistencies in their evaluations of their leak detection programs.

- By not correcting inconsistencies with the grading of deferred leaks identified in the 2007 audit but still exist in 2008. Examples:
 - 2007 leak records show leaks for 1527 Thayer and 1503 Wright, in Richland were discovered on 08.09.07 but were not graded until 08.21.07.
 - 2008 leak records show leak for 8612 Massey, Pasco does not include employee name

WAC 480-93-188(6)(e) Cascade failed to correct inaccurate and incomplete leak survey records after their 2007 self audit. Cascade audit only stated records were *more* accurate and complete than surveys and patrols performed in the past.

- By not correcting inaccurate records the following High Occupancy structures were not leak surveyed either as an High Occupancy or an annual business district leak survey for 2007 and 2008.
 - The High Occupancy records provided did not include the instrument tracking or identification number required by 188(5)(f):. Examples:
 - 321 N. Columbia Center Blvd. #C, Kennewick – Batteries Plus – Active
 - 321 N. Columbia Center Blvd. #B, Kennewick – Crosspointe Assoc/Windermere
 - 321 N. Columbia Center Blvd. #A, Kennewick – Fusion Café/dba Express Grill
 - 2500 W. 4th Ave., Kennewick – Grace United Reformed Church
- By not correcting inaccurate and incomplete leak records issues noted in 2007 self audit, Cascade records continued to not include required information. Examples:
 - Records do not identify calibrated FI equipment:
 - 620 W. Deschutes Ave., Kennewick – 05.20.08
 - 2720 University Dr., Richland – 05.20.08
 - Records include information performed on a variety of dates by a variety of different people on the same form which conflicts with other records for same location.
 - Sycamore & Lewis, Pasco – 11.2007 through 11.2008

FIFTH (5TH) CAUSE OF ACTION (GAS LEAK EVALUATIONS)**Kitsap District [7.3, 8]:****7.3 – See Complaint**

8 **Finding(s):** Cascade records do not show documentation that follow-up inspections for residual gas were completed on the following leak repairs.

- | | | |
|----|------------------------------------|----------|
| a. | 315 Bryan Ave., Bremerton | 06.22.09 |
| b. | 13550 Ridgelane Dr. NW, Silverdale | 06.12.09 |

Aberdeen District [9, 10]:

9.1 **Finding(s):** Cascade did not properly determine and document the leak location at R-12 Sheldon and Matlock Rd. in that bar hole locations were not identified, the gas concentration at each bar hole/read location was not identified, and the perimeter of the leak area (normally identified with a 0% Combustible Gas Indicator read) was not identified/determined on the following:

- | | |
|----|--|
| a. | Cascade Form 293 Substructure Damage/Leak Report initiated 12.31.07 in conjunction with Cascade Form 330A O&M Request # 0006109 – 12.31.08 |
| b. | Cascade Form 330A O&M Request # 0006231 – 09.25.08 |

9.2 **Finding(s):** Cascade did not properly determine and/or identify the perimeter of the leak area at R-12 Sheldon & Matlock Rd. Bar holes and reads should have been extended past the point of where a positive gas concentration was identified until a 0% Combustible Gas Indicator read was obtained. The following examples of this condition were documented on Cascade Form 330A O&M Request(s):

- | | |
|----|----------------------|
| a. | # 0006112 – 01.04.08 |
| b. | # 0006114 |
| | i. 01.07.08 |
| | ii. 01.09.08 |
| | iii. 01.11.08 |
| c. | # 0006117 – 01.18.08 |
| d. | # 0006123 – 02.01.08 |
| e. | # 0006130 – 02.05.08 |
| f. | # 0006133 – 02.13.08 |
| g. | # 0006160 – 03.07.08 |
| h. | # 0006130 – 02.05.08 |
| i. | # 0006161 – 03.21.08 |
| j. | # 0006170 – 03.28.08 |
| k. | # 0006178 – 04.10.08 |
| l. | # 0006180 – 04.23.08 |

- m. # 0006186 – 05.06.08
- n. # 0006189 – 05.29.08
- o. # 0006191 – 06.12.08
- p. # 0006194 – 07.25.08
- q. # 0006214 – 08.12.08 (2 separate reads completed on this date)
- r. # 0006220 – 08.25.08
- s. # 0006228 – 09.04.08 No map accompanied this form
- t. # 0006231 – 09.25.08 No bar holes or perimeter identified

9.3 Finding(s): Cascade did not label the magnitude of the reads taken (example: Finding 9.2 above) with a label identifying LEL or gas in air.

Tri-Cities District [12.1]:

12.1 Cascade’s leak evaluation records failed to document the perimeter of the leak area, failed to document a follow-up leak inspection within 30 days of a leak repair with residual gas in the ground.

- 3184 Willow Point Dr., Richland
 - No leak perimeter investigation documented (barholes) per WAC 480-93-186(2)
- 202 Kranichwood Ct., Richland
 - No leak perimeter investigation documented (barholes) per WAC 480-93-186(2)
- 30 S. Vancouver St., Kennewick
 - No leak perimeter investigation documented (barholes) per WAC 480-93-186(2)
- 6307 W. Rio Grande Ave., Kennewick
 - No leak perimeter investigation documented (barholes) per WAC 480-93-186(2)
- 1503 Wright, Richland
 - Cascade did not complete a residual gas inspection
- Sycamore & Lewis, Pasco
 - No follow up

SIXTH (6th) CAUSE OF ACTION (GAS LEAK RECORDS)**Whatcom District [3]:**

3.1 Finding(s): Cascade gas leak forms/records identify the magnitude of Combustible Gas Indicator reads as a % only and do not include a unit label. It is unclear whether the % read on the form identified on their records indicates LEL or gas to air.

3.2 Finding(s): Records indicate that special leak surveys do not contain documentation of all required information. Examples follow:

- | | | |
|----|----------|---|
| a. | 08.23.07 | Vista/Washington, Ferndale |
| b. | 09.14.07 | Grover & 1 st up Drayton, Lynden |
| c. | 09.25.07 | Mountain View Rd. & Douglas Rd., Ferndale |

Cascade Special leak survey records did not contain the required minimum information as follows:

- 08.23.07 Vista/Washington, Ferndale
 - Does not include a map of the area surveyed
 - Does not document the survey results
 - Does not identify the instrument serial number
- 09.14.07 Grover & 1st up Drayton, Lynden
 - Does not include a map of the entire surveyed area of Drayton from 1st to Bender
 - Does not identify the instrument serial number
- 09.25.07 Mountain View Rd. & Douglas Rd., Ferndale
 - Does not include a map of the area surveyed
 - Does not document the survey results

Kitsap District [9]:

9.1 Finding(s): Cascade gas leak records do not identify serial numbers of leak detection equipment used.

- | | | |
|----|--------------------------------------|----------|
| a. | 315 Bryan Ave., Bremerton | 06.22.09 |
| b. | 6790 Harris Rd., Port Orchard | 11.19.08 |
| c. | 2516 11 th St., Bremerton | 02.12.08 |

9.2 Finding(s): Gas leak records identify the magnitude of Combustible Gas Indicator reads as % only and do not include a unit label. It is unknown whether the % read indicates LEL or gas to air.

Tri-Cities District [11.14, 13]:

11.14 Finding(s): Cascade did not include the identification number for the combustible gas indicator (Combustible Gas Indicator) used at the following locations:

- a. 1527 Thayer, Richland
- b. 1503 Wright, Richland
- c. 648 Cottonwood Dr., Richland
- d. 3184 Willow Point Dr., Richland
- e. 202 Kranichwood Ct., Richland
- f. 7325 W. Deschutes #B, Kennewick
- g. 5307 Texada Ln., Pasco
- h. 30 S. Vancouver St., Kennewick
- i. 6307 W. Rio Grande Ave., Kennewick
- j. 404 S. Dawes St., Kennewick

13 WAC 480-93-187 – Leak Records

These are repeat violations from Docket PG-021194.

WAC 480-93-187(1): Total = 10 Violations

- 1527 Thayer, Richland
 - No time recorded for leak repair
- 1527 Thayer, Richland
 - No date, time recorded for second leak investigation
- 1503 Wright, Richland
 - No date, time the leak was detected, reported (deferred)
- 1503 Wright, Richland
 - No time of leak investigation on 08.09.07
- 1503 Wright, Richland
 - No time of leak inspection on 09.24.07.
- 1503 Wright, Richland
 - No date, time, and name of person on leak inspection on checked by GM date of 03.12.08
- 1503 Wright, Richland
 - No name of person investigating/repair of leak dated 11.06.08
- Sycamore & Lewis, Pasco
 - No date or time of leak inspection on checked by GM date of 03.10.08
- Sycamore & Lewis, Pasco
 - No time of leak repair on 11.07.08 for Form 293.
- Rd. 27 & Warehouse Rd., Pasco
 - No time and name of person conducting leak repair

WAC 480-93-187(7) Total = 1 Violation:

- 1527 Thayer, Richland
 - No size of material

WAC 480-93-187(8) Total = 1 Violation:

- Sycamore & Lewis, Pasco
 - No pipe condition.

WAC 480-93-187(12) Total = 2 Violations:

- Sycamore & Lewis, Pasco
 - No magnitude of Combustible Gas Indicator readings left on 11.14.07 Operation & Maintenance Request Form
- Rd. 27 & Warehouse Rd., Pasco
 - No location of Combustible Gas Indicator readings left

WAC 480-93-187(13) Total = 12 Violations:

- 1527 Thayer, Richland
- 1503 Wright, Richland
- 648 Cottonwood Dr., Richland
- 3184 Willow Point Dr., Richland
- 202 Kranichwood Ct., Richland
- 7325 W. Deschutes #B, Kennewick
- 5307 Texada Ln., Pasco
- 30 S. Vancouver St., Kennewick
- 307 W. Rio Grande Ave., Kennewick
- 404 s. Dawes St., Kennewick
- Sycamore & Lewis, Pasco
- 1225 Fuji, Richland

SEVENTH (7TH) CAUSE OF ACTION (PLANS AND PROCEDURES)**Aberdeen District [8]:**

- 8.1 Finding(s):** Under 49 CFR §192.16 Customer Notification: New customers are to be notified, within 90 days, of their responsibility for those service lines not maintained by the operator. Cascade identified that their new customer notification is auto-generated based upon turn-on notification from the field. There is no procedure/process by which to determine whether this information is actually being generated, sent, or received by the appropriate customers. There is no auditing or monitoring of this notification task by Cascade.
- 8.2 Finding(s):** Cascade has not included recent updates to their procedure manual. Cascade's NDT procedure CP 760 was last updated May 2, 2008. This procedure was updated in their computer "S: Drive" procedures but the hard copy manual presented for Staff inspection still contained an outdated NDT procedure from December 2007.
- 8.4 Finding(s):** Cascade did not follow their procedures for evaluation, investigation and documentation of underground leaks as identified in their Operations Manual under CP 750. Documentation provided for the long standing leak (approximately 9-1/2 months or between 12.31.07 and 09.25.08) located at R-12 Sheldon & Matlock Rd., identifies that Combustible Gas Indicator reads were repetitively taken at the same/exact bar hole locations.

Documentation indicates that no additional action was taken as the reads increased but rather that the read frequency declined. No bar holes were made past the point of those locations where a gas concentration of greater than 0% was detected for the purpose of establishing the perimeter of the leak.

Staff also reviewed leak reports where Cascade neglected to identify any bar hole locations used to obtain the Combustible Gas Indicator read(s) reported. Blank copies of a drawing, which indicated the locations of where bar holes were located and the same location where new reads were to be obtained, were provided to crews to repeatedly utilize to report the condition of this leak.

Based upon the above noted failures in the reporting required leak investigation details and the lack of documentation which would identify that that the leak investigation reports were reviewed and/or the investigation should be modified or the perimeter extended, leaves Staff unclear as to whether management was cognizant that conditions had drastically changed indicating that this leak classification should be reviewed in accordance with Cascade procedures and regulations.

- 8.5 Finding(s):** Substructure Damage/Leak Report Cascade Form 293 Incident # 6522 dated 07.25.08, does not identify the name of the person(s) that replaced a 21' section of bent service line on 07.29.08.

- 8.6 Finding(s):** Cascade did not paint/coat Regulator Station 41 in accordance with their procedures CP 710.041 and CP 754. During pre-field inspection on 04.28.08, Staff noted that this regulator station had been primed with red oxide primer but had not been coated with the required company standard grey paint. An atmospheric corrosion review had been recently completed by Cascade at this site on 01.14.08 and the coating was rated as "good."
- 8.8 Finding(s):** Cascade did not follow their atmospheric corrosion remediation procedures. During pre-field inspection on 05.01.08, Staff noted severe atmospheric corrosion with some pitting on the meter loop located at 109 E. 2nd in Aberdeen – meter #247029. Staff and Cascade returned to this location to complete an Occupational Qualification on corrosion identification/pipe loss on 12.09.08. Upon arriving at this site, it was noted that loop had been just recently painted. The following were noted on 12.09.08:
- Loop had been painted without wire-brushing the surface.
 - Paint had been built-up in the pitted area and was now level with the surrounding pipe surface.
 - No pit gauge measurement was taken and no documentation of pitting was noted/provided.
 - Weeds at the interface had been painted over indicating that this may not have been reviewed.
 - The underside of the pipe remaining untouched with no remediation/ paint with large paint peels still visible and attached to pipe.

Cascade documents identify the following:

- This loop had been painted on 12.08.08 in response to Service Request # 0052350 generated on 11.17.08 with the instructions: "L/S AOC – Paint Meter. Painted meter set. Turned vent downward."
 - The previous inspection of this loop occurred on an unknown date in 2006 (identified on a print-out dated 12.07.05 but utilized for the survey completed in 2006) by an unknown employee.
 - A handwritten attachment to the above described 2006 inspection wherein it appears to identify that this loop had already been painted on 04.29.08 or on 04.29.08 a noted abnormal operating condition (AOC) was identified by Cascade and painting was requested. Either way, the 6 month remediation timeframe had expired.
- 8.9 Finding(s):** Cascade did not follow their Pipeline Marker Procedures identified in CP 610.05 in that they did not have maps which accurately depict the location of their pipeline markers. Example: Cascade's leak survey section maps identify pipeline marker locations by indicating "pipeline marker area" via a map key designation. It is unclear whether those crews completing the leak survey, quarterly patrol form and log actually reviewed required pipeline markers during their survey. In some instances, there is no evidence that maps accompanied their leak surveys and therefore no evidence that pipeline marker locations were identified or reviewed.

- 8.10 Finding(s):** The following vent installations are not in accordance with the Cascade Procedures CP 685.0302 which references WAC 480-93-140(1) and CP 685.0308 Venting – Vents for regulators shall be carried through to outside discharge. The pipe shall terminate with a bug screen and be discharged downwards. Additionally, all Standard Meter Set drawings within Cascade Procedure 685 identify that the regulator vent shall be pointed downward. The following vents were found in the horizontal position:
- a. 325 W. Main St., “Elma Variety,” Elma – Meter 256445
 - b. 109 N. Broadway, “Whiteside Mortuary,” Aberdeen – Meter 247029
 - c. 1006 North H St., “Grays Harbor Health & Rehab Center,” Aberdeen
 - d. 915 Anderson Dr., “Aberdeen Hospital,” Aberdeen
 - e. 708 Simpson, Hoquiam (In the alley)
- 8.11 Finding(s):** The meter set installation for Broadway Manor located at W. 2nd & N. Broadway, Aberdeen, has combustible material placed between the meter and the meter table. This is not in accordance with Cascade Procedure CP 685 wherein it identifies that meters are to be set directly on meter tables in Standard Meter Set drawings No. 10, 10-P, 11, 11-P, 12, and 12-P.
- 8.12 Finding(s):** Cascade Procedure CP 716.013 identifies that the condition of pipeline markers must be noted on the patrol log and specifically states, "Indicate any concerns or changes found during the patrol and take appropriate action to repair or mitigate the concern or change. If there are no concerns then indicate that..." These procedures were not followed. Examples follow:
- a. 02.13.07 Aberdeen District, Town of McCleary – Section 4
 - b. 02.03.06 Aberdeen District, Town of McCleary – Section 3
- 8.13 Finding(s):** Cascade's does not adequately identify and list persons who normally engage in excavation activities in the area. Cascade appears to maintain a list of only the predominant excavators rather than maintain a list of area excavators as required by Cascade's procedures manual. Excavators that have caused damage to Cascade's system have not been included. Cascade did not follow their public awareness procedures Cascade Procedure CP 500.
- 8.14 Finding(s):** Cascade Procedure 747.05 Testing Odorant Levels (Sniff Tests) does not identify that sniff tests require the use of calibrated equipment or that instruments utilized to perform sniff tests are to be recorded.
- 8.16 Finding(s):** Cascade did not follow their procedures for evaluation, investigation and documentation of underground leaks. Records indicate that Cascade leak responders did not document the *perimeter* of the underground leak area at the following locations:

Cascade did not properly determine and/or identify the perimeter of the leak area at R-12 Sheldon & Matlock Rd. Bar holes and reads should have been extended past the point of where a positive gas concentration was identified until a 0% Combustible Gas Indicator read was obtained. The following examples of this condition were documented on Cascade Form 330A O&M Request(s):

- a. # 0006112 – 01.04.08
- b. # 0006114
 - i. 01.07.08
 - ii. 01.09.08
 - iii. 01.11.08
- c. # 0006117 – 01.18.08
- d. # 0006123 – 02.01.08
- e. # 0006130 – 02.05.08
- f. # 0006133 – 02.13.08
- g. # 0006160 – 03.07.08
- h. # 0006130 – 02.05.08
- i. # 0006161 – 03.21.08
- j. # 0006170 – 03.28.08
- k. # 0006178 – 04.10.08
- l. # 0006180 – 04.23.08
- m. # 0006186 – 05.06.08
- n. # 0006189 – 05.29.08
- o. # 0006191 – 06.12.08
- p. # 0006194 – 07.25.08
- q. # 0006214 – 08.12.08 (2 separate reads completed on this date)
- r. # 0006220 – 08.25.08
- s. # 0006228 – 09.04.08 No map accompanied this form
- t. # 0006231 – 09.25.08 No bar holes or perimeter identified

8.17 Finding(s): Cascade did not properly determine and document the leak location at R-12 Sheldon and Matlock Rd. in that bar hole locations were not identified, the gas concentration at each bar hole/read location was not identified, and the perimeter of the leak area (normally identified with a 0% Combustible Gas Indicator read) was not identified/determined on the following:

- a. Cascade Form 293 Substructure Damage/Leak Report initiated 12.31.07 in conjunction with Cascade Form 330A O&M Request # 0006109 – 12.31.08
- b. Cascade Form 330A O&M Request # 0006231 – 09.25.08

Tri-Cities District [2.3, 2.4, 11.1, 11.2, 11.3, 11.4, 11.7, 11.15, 11.19, 11.20, 11.22, 11.23, 11.24]:

2.3 Finding(s): Gas pipeline records lack sufficient detail regarding the *calibration of sniff test instruments*. Examples follow:

	<u>Date</u>	<u>Location, City</u>	<u>Odorizer #</u>
a.	01.08.07	Grunderson, Finley	O-1
b.	06.11.07	6001 Rd. 84, Pasco	O-9
c.	12.06.07	Finley School Reg, Finley	O-1
d.	07.07.08	2802 W. 35 th , Kennewick	O-3
e.	01.02.08	Grunderson, Finley	O-1
f.	09.08.08	2901 Commercial Ave., Pasco	O-05

2.4 Finding(s): Records for the 2007 Leak Survey for Section 5 contain incongruities and/or are inadequate.

- a. Form Cascade 295 Leak Survey Detection Log records for Section 5, Kennewick District, Town of Richland dated as completed 08.15.07 and also dated as completed 08.14.07, contain incongruities in chronological record keeping.
- b. The 08.08.07 leaks have been documented as having been found after 08.09.07.
- c. This record also identified that leak 1527 Thayer was repaired on 08.13.07 when it was not repaired. On 08.21.07 General Manager graded this leak as a grade 2 and deferred the leak repair.
 1. Leak was not graded.
 2. O&M Request form dated 08.13.07 identifies two employees “bar holed and probed main. Exposed main at the highest reading no leak found Deferred to GM.”
 - i. No map completed/provided
 - ii. No criteria documented regarding leak deferral.
 - iii. No bar hole locations/read locations identified
 - iv. No equipment identified as being used for this investigation to complete leak investigation
 - v. No pipe condition report/information
 - vi. No size and type of pipe identified
 3. O&M Request for re-evaluation of leak dated 09.05.07 contains insufficient data to determine compliance.
 - i. No equipment identified as being used for this investigation to check for residual gas.
- d. This record identified that leak 1503 Wright was repaired on 08.14.07 when it was not repaired. On 08.21.07 General Manager graded this leak as a grade 2 and deferred the leak repair.
 1. Leak was not graded.
 2. O&M Request form dated 08.14.07 identifies two employees “bar holed and probed main took reads see attached sheet”
 - i. No sheets attached
 - ii. No map completed in association with investigation
 - iii. No criteria documented regarding leak deferral.
 - iv. No bar hole locations/read locations identified

- v. No equipment identified as being used for this investigation to complete leak investigation
- vi. No pipe condition report/information
- vii. No size and type of pipe identified
- e. FI Units used for this Leak Survey were not calibrated according to the log sheets provided with this survey.
 - 1. No calibration records for FI Units 48240 and 48101 for survey identified as completed on different dates. One location states completion on 08.14.07 and another on 08.15.07. Either way there are no calibration records between the last recorded leak and the completion date. No survey start date has been identified.
- f. Re-evaluation of leak after repairs

11.1 See Complaint

11.2 **Finding(s):** Cascade did not provide the commission with available procedure manual revisions as required by the rule.

- a. Procedure 500 – Public Awareness Program
- b. Procedure 680 – High Pressure Service Setting
- c. Procedure 685 – Meter and Regulator Sets
- d. Procedure 745 – Regulator Station Inspection and Maintenance
- e. Procedure 750 – Leak Investigation
- f. Procedure 754 – Atmospheric Corrosion Control
- g. Procedure 760 – Welding Standards
- h. Procedure 835 – Damage Prevention
- i. Procedure 860 – Facilities Installation Report
- j. Procedure 925 – Emergency Policy

11.4 – See Complaint

11.7 Cascade failed to prepare complete pipeline records in recording information following construction. Cascade did not follow their construction installation records procedures. (CP 860, 865, 869, 870, 880 and 881)

- a. 7115 W. 6th Ave., Kennewick No test duration
CP 860, 865 WAC 480-93-180(1); 018(4); 170(7)(e)
- b. 9115 W. Clearwater Ave., Kennewick No test duration, no test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c), (e); 192.605(b)(3)
- c. 9120 W. Clearwater Ave., Kennewick No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- d. 6511 W. 5th Ave., Kennewick No test medium, No employee name, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(b), (c); 192.605(b)(3)

- e. 3059 Bluffs Dr., Richland No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- f. 3065 Bluffs Dr., Richland No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- g. 596 Clermont Dr., Richland No test medium
CP 860, 865 WAC 480-93-180(1); 018(4); 170(7)(e)
- h. 2885 Duportail Dr., Richland No test medium, not mapped at location identified on service
Card CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- i. 2855 Duportail St., Richland No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- j. 3910 Road 104, Pasco No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- k. 3914 Road 104, Pasco No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- l. 5109 Road 68, Suite 101-105, Pasco No test duration, no test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(b),(c), (e); 192.605(b)(3)
- m. 1915 Road 84, Pasco No test duration, no test medium, no employee name,
not mapped at location identified on service Card
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c)(e); 192.605(b)(3)
- n. 5426 Road 68, A-D, Pasco No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- o. 4525 Road 68 A, Pasco No test medium, no pipe length, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c), (f); 192.605(b)(3)
- p. 6501 W. 6th Ave., Kennewick No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- q. 224 Bear Dr., Richland No test medium, not mapped
CP 860, 865, 869 WAC 480-93-180(1); 018(4-5);170(7)(c); 192.605(b)(3)
- r. 4525 Convention Pl., Pasco No test medium
CP 860, 865 WAC 480-93-180(1); 018(4-5);170(7)(c);

11.15 Finding(s): Cascade Leak Survey and Leak Investigation Procedures CP 725 and 730 were not followed in that the company did not provide or was unable to provide clear and accurate records for the gas leak at Sycamore and Lewis Streets, Pasco, in accordance with their procedures.

- a. No records or documentation were provided at the time of inspection indicating that *leak grade procedures* were followed.
- b. No records or documentation were provided at the time of inspection indicating equipment *calibration* on 11.14.07 for FI units 48101 and 48240.
- c. Cascade *FI Unit check/calibration process/procedures* were not followed.
 1. The two FI units used for this Grade 2 leak were not checked/calibrated prior to their use.
 2. The two FI units calibration/accuracy check date was not indicated on either of the leak survey form (Cascade 286) or a copy of the FI unit log attached to the leak survey form.
- d. Form Cascade 295 *Leak Survey Detection Log records* for Business District Section 1, Kennewick District, Town of Pasco dated 11.07.07 and 11.26.07 contain incongruities in chronological record keeping.
 1. The 11.14.07 leak is documented as having been found after 11.20.07.
 2. Form Cascade 295 identifies that this survey was performed and completed all on 11.26.07. However, Form Cascade 286 identifies that the survey was completed on 11.07.07 and 11.26.07.
- e. Leak Survey Detection Log (Cascade 295) records indicate *conflicting leak grade information* for the same day. Form Cascade 293 identifies that the General Manager rated the leak on 11.14.07 as a Grade 2 Leak but on Form Cascade 295 on 11.14.07 the General Manager identified that the leak is rated as a Grade 3 Leak.
- f. *Leak investigation and leak downgrade documentation* is consistently conflicting and insufficient. Form Cascade 293 on 11.14.07 is identified as a deferred Grade 2 leak but on Form Cascade 295 on 11.14.07 as a Grade 3 leak. But, on 03.12.08 leak is again identified as a Grade 2 and in conflict with the earlier Grade 3 determination.
- g. The *form appears to have been completed after-the-fact by the General Manager on 12.18.07 and not by field personnel* as leaks were detected/graded/repared, etc. Additionally, the employee signature block states: "Survey Performed and Form Completed by" – again, this form appears to have been completed by the General Manager.
- h. Form Cascade 293 Substructure Damage/Leak Report indicate that the leak was:
 1. *First investigation* report identifies leak as Grade 2 on 11.14.07.
 - i. Leak deferment information provided does not include sufficient reasons for deferment of this Grade 2 Leak, as identified in Cascade procedures.
 - ii. Leak read and deferment appears to have been based upon reads from an un-calibrated FI unit.

- iii. Form 293 identifies that 19% gas was found at the main but no bar hole reads were taken. Cascade procedures require that bar holes shall be created to test underground levels of gas with a Combustible Gas Indicator.
 - iv. No Combustible Gas Indicator equipment was identified on this form.
 - v. Form shows incident number 6158 assigned on 03.12.08 and work order number DD012954 assigned on 03.11.08 on a form that was by all accounts, completed on 11.14.07.
2. *Second investigation* report identifies leak as Grade 3 on an unidentified date:
- i. Form undated so site visit date unknown. Checked by General Manager on 03.10.08.
 - ii. Form indicates that nothing is new in leak. However, bar hole reads on map indicate that gas has migrated to locations not previously identified as having residual reads.
 - iii. Unknown date so unknown whether calibration complete.
 - iv. Leak investigation procedures not followed. FI reads ppm but Combustible Gas Indicator is required to report %/ppm. No Combustible Gas Indicator equipment or SN identified as being used – no calibration records for Combustible Gas Indicator indicated.
3. *O&M Request Forms* for this leak
- i. Dated 11.14.07 forms do not contain instrument/equipment or calibration information.
 - ii. Dated 11.14.07 forms do not identify a leak grade. The gas read is illegible.
 - iii. Dated 06.16.08 forms do not contain instrument/equipment or calibration information.
 - iv. Dated 06.16.08 forms do not identify a leak grade.
 - v. Dated 06.16.08 forms do not sufficiently describe location/city information.
- i. Form 286 System Surveillance Record is incompatible with other leak records and is signed by employees and General Manager as correct. (Form incorrectly indicates no leaks: “completed survey all appeared ok.”)
 - j. Gas leak records do not contain sufficient data and information to assess the adequacy of the operator’s leakage program. The records do not contain the minimum information as required per WAC 480-93-187.
 - k. Based upon records provided, the present status of leak is indeterminate. Original leak form was re-used creating confusion and lack of information to document whether repaired on 11.07.08.

11.19 Finding(s): Cascade failed to provide accurate check dates for the FI equipment used for leaks at the following locations:

- a. Sycamore & Lewis, Pasco
- b. 1503 Wright Ave., Richland
- c. 1527 Thayer, Richland

11.20 Finding(s): The abnormal operating conditions (AOC's) identified on Tri-Cities quarterly Patrol Logs have not been remediated in accordance with Cascade procedures. Examples follow:

	<u>Location</u>	<u>Date 1st Noted</u>	<u>Remediated</u>	
a.	Columbia Center- Roof Top	07.26.06	04.18.07	Paint
b.	Richland "Y" Canal Crossing	07.26.06	12.05.07	Paint & wrap
c.	Bowels Road & Collier Chemical	07.26.06	04.18.07	Paint & wrap
d.	S. Irby St. & Twilight Lane Canal	07.26.06	04.18.07	Paint
e.	5 th & S. Washington Canal	11.15.06	12.06.07	Missing vent cap
f.	E. Elm & S. 4 th Canal Crossing	07.26.06	04.18.07	Paint

11.22 - See Complaint

11.23 Finding(s): Cascade failed to follow their atmospheric corrosion remediation procedures. Atmospheric corrosion issues noted by Cascade field personnel did not receive corrective action. Examples follow:

- a. 321 W. Kennewick Ave., Kennewick Corrective action requested 01.03.05
No action taken
- b. 213 W. Kennewick Ave., Kennewick Corrective action requested 01.03.05
No action taken
- c. 220 E. Columbia Dr., Kennewick Access issues were identified by GM
No remediation action taken

EIGHTH (8TH) CAUSE OF ACTION (PUBLIC AWARENESS)**Kitsap District [18]:** See Complaint**Wenatchee/Moses Lake District [4]:** See Complaint**NINTH (9TH) CAUSE OF ACTION (RECORDS)****Kitsap District [2.2., 2.3, 2.4]:**

2.2 **Finding(s):** Atmospheric corrosion monitoring records are insufficient to demonstrate compliance. Cascade did not provide the two most recent inspection records.

- a. 937/939 Callow Ave., Bremerton
- b. 641 Callow St., Bremerton
- c. N of 2706 6th St., Bremerton – (N. of Meter 273904)
- d. W of 347 N Callow Ave., Bremerton – (W. of Meter 241073)
- e. Meter 109802 – N Callow Ave., Bremerton
- f. Meter 152328 – Callow Ave., Bremerton
- g. 9987 Silverdale Way Northwest, Silverdale - Meter 179895
- h. 4303 Kitsap Way, Bremerton
- i. Meters 685707, 598593, & 234429
- j. 10710 Hillsboro Dr. NW, Silverdale – Meter 236942
- k. 10790 Hampton Ave. NW, Silverdale – Meter 569244
- l. 10792 Hampton Ave. NW, Silverdale – Meter 127053
- m. 10794 Hampton Ave. NW, Silverdale – Meter 239492
- n. 10798 Hampton Ave. NW, Silverdale – Meter 236324
- o. 10830 NW Hampton Ave., Silverdale – Meter 221830
- p. 10838 Hampton Ave. NW, Silverdale – Meter 238511

2.3 **Finding(s):** Atmospheric corrosion monitoring records are insufficient to demonstrate compliance. Atmospheric corrosion monitoring records printed on 12.21.05 show handwritten Cascade inspection dates which occur approx. 3 years before the 12.21.05 form print date.

- | | | |
|----|------------------------|----------|
| a. | 3519 Arsenal Way | 08.21.02 |
| b. | 3517 Arsenal Way | 08.21.02 |
| c. | 3715 Arsenal Way | 08.21.02 |
| d. | 3713 Arsenal Way | 08.21.02 |
| e. | 3709 Arsenal Way | 08.21.02 |
| f. | 3708 Arsenal Way | 08.21.02 |
| g. | 3737 Arsenal Way | 08.21.02 |
| h. | 4710 Auto Center Blvd. | 09.06.02 |
| i. | 4901 Auto Center Blvd. | 09.06.02 |
| j. | 4907 Auto Center Blvd. | 09.06.02 |

k.	4921 Auto Center Blvd.	09.06.02
l.	4940 Auto Center Blvd.	09.06.02
m.	4949 Auto Center Blvd.	09.06.02
n.	4949-1/2 Auto Center Blvd.	09.06.02
o.	250 Wilkes Ave.	09.06.02
p.	5008 Auto Center Blvd.	09.06.02
q.	4091 Country Ln. NW #2	09.19.02
r.	2417 NW Greenhaven Pl.	09.19.02
s.	4091 Country Ln. NW #1	09.19.02
t.	4091 Country Ln. NW Lndry.	09.19.02
u.	6708 Kitsap Way	09.06.02
v.	6710 Kitsap Way #A	09.06.02
w.	6710 Kitsap Way #B	09.06.02
x.	6720 Kitsap Way	09.06.02
y.	6722 Kitsap Way	09.06.02
z.	6724 Kitsap Way	09.06.02

2.4 – Maps Cascade kept in its service vehicles which are utilized by Cascade pipeline service personnel were not current. During Staff’s Occupational Qualification field review on November 4, 2009, Staff noted that maps utilized in the field by Cascade personnel were dated May 2007.

- a. Map for Gorst, Kitsap County Grid 3-C dated Sunday, May 20, 2007
(Cascade identified the most recent maps available are dated October 27, 2009).
- b. Map for Gorst, Kitsap County Grid 3-E dated Sunday, May 20, 2007
(Cascade identified the most recent maps available are dated October 27, 2009).

Aberdeen District [2]:

2.2 **Finding(s):** Gas pipeline maps utilized by personnel in the field were identified by Cascade as having not been updated since 2006. Gas pipeline maps carried in Cascade GM vehicle were utilized in the field Cascade during Cascade/Staff site visit at Calder Rd. and Monte Elma (W. of N. 18th St.) in Aberdeen. This field use of maps, that have not been updated, necessitates that all field maps issued to personnel be properly updated. The accurate and up-to-date master maps located in the District office are not a substitute to updated field maps.

2.3 **Finding(s):** The following System Surveillance records make no mention either way, as to whether or not pipeline markers were surveyed:

- a. 02.15.05 Grays Harbor District, Town of Elma – Section 2
- b. 02.13.07 Aberdeen District, Town of McCleary – Section 4
- c. 02.03.06 Aberdeen District, Town of McCleary – Section 3
- d. 01.13.03 Aberdeen District, Town of McCleary – Section 5

- 2.4 Finding(s):** Pressure Test records provided did not contain all required information for 1502 Riverside, Hoquiam on 10.17.08 - Line pipe length missing.

Tri-Cities District [2.1, 3.1, 3.2, 29]:

- 2.1 Finding(s):** Gas pipeline records lack sufficient *mapping* detail or have not been mapped. Examples follow:

	Project/Address	Completion Date	Issue
a.	D0082088	04.18.07	Not mapped
b.	D0084099	03.08.08	Not mapped
c.	D0083742	03.08.08	Not mapped Proj. # on distr. line rpt. = D0083742 Proj. # on as built/dsgn. = D0083743
d.	D0080845	11.21.06	Not mapped
e.	4525 Rd. 68, Kennewick	01.25.07	Not mapped
f.	6501 W. 6 th Ave, Kennewick	11.16.07	Not mapped
g.	224 Bear Dr., Richland	10.31.07	Not mapped
h.	6511 W. 5 th Ave, Kennewick	02.01.08	Not mapped
i.	9120 W. Clearwater Ave., Kennewick	03.27.07	Not mapped
j.	9115 W. Clearwater Ave., Kennewick	11.16.06	Not mapped
k.	3914 Road 104, Pasco	12.24.07	Not mapped
l.	3910 Road 104, Pasco	10.06.06	Not mapped
m.	1915 Road 84, Pasco	11.28.06	Not mapped at location identified on service card
o.	5109 Road 68, Pasco	03.26.08	Not mapped
p.	2855 Duportail St., Richland	11.08.06	Not mapped at location identified on service card
q.	2885 Duportail Dr., Richland	09.28.07	Not mapped
r.	3065 Bluffs Dr., Richland	11.27.06	Not mapped
s.	3059 Bluffs Dr., Richland	02.05.07	Not mapped

- 3.1 Finding(s):** Accurate records/maps of pipeline markers were not available to operations personnel. Pipeline markers were not mapped by June 5, 2007, as was identified by Cascade in their Letter of Intent dated 10.23.06 in response to Docket PG-060216.

- 3.2 Finding(s):** Accurate records were not available to operations personnel. Examples follow:

- a. 224 Bear Dr., Richland
 1. On service Card, not on hanging grid maps, not on CAD map
- b. 6501 W 6th Ave., Kennewick

1. On svc card, not on hanging grid maps, not on CAD map
- c. 4525 Road 68 Bldg. Unit A, Pascoe
 1. On svc card, not on hanging grid maps, not on CAD map
- d. 4525 Convention Pl., Pasco
 1. On svc card, not on hanging grid maps, is on CAD map
- e. Kennewick Grid Sheet 3-F
 1. Contains hand drawn construction activity from December 1990 through August 2008 but does not include February 2005 W. 4th Ave. gas main information. Project # D0070888
 2. Contains hand drawn construction documentation from 06.30.06 Project # D0080351 stating that on S. Penn Pl., the main was not tied-in in 2006 with Project # D0070888 but new map, Kennewick Grid Sheet 3-G, shows main tied-in with no separate construction date or project number.
- f. Kennewick Grid Sheet 3-F was changed to Kennewick Grid Sheet 3-G but service cards or gas main project # information was not updated to reflect Grid change. No Grid conversion sheet exists which would direct employees to correct map grids.

29.1 Finding(s): Cascade does not have readily available, clear, accurate, or useable records regarding the location and characteristics of pipeline elements for use in emergency response, pipe location, and marking. The most recent grid map update has been identified as 02.28.08, but some of the maps have not been updated since 1990 and the grid information provided on mapping documents is erroneous.

- a. Making emergency area shutdown information ineffectual,
- b. Pipeline maps contain little or no dimension information,
- c. Maps do not contain marker locations,
- ~~d. Maps do not contain valve location/information,~~
- e. General Manager identified that due to large amount of growth and expansion in the Tri-Cities area it forced Cascade to rename/adjust their map grid area identification.
 1. All documents with grid change name have not been updated to reflect new grid making it very difficult to find as built maps,
 2. No key has been provided to translate or tie-in old grid map location names with the new grid location names.
- f. Mapping issues are compounded due to utilizing the same deficient [not updated] maps to meet the interval monitoring requirements of separate rules such as, leak surveys and patrolling.
 1. The maps that should convey up-to-date (within six months) as-built information for use by field personnel, are the same [not updated] maps repurposed for the separate functions of conducting leak surveys, locating and patrolling.
 2. It appears that Leak Survey and Patrolling documentation added in the field and identified on a particular map by Cascade field personnel has not been reviewed and then translated to the next survey or patrol interval

map. For example, in an effort to update their leak survey map, field personnel hand drew two main extensions and several services on their 2007 Leak Survey Map in Kennewick for Grids 2-C & 3-C. These main extensions and services do not appear on 2008 Leak Survey map Kennewick for Grids 2-C and 3-C.

- g. Gas Pipeline *Construction Mapping Records*. Cascade has not updated construction mapping records. Examples follow:

	Project #/Address	Completion Date	Issue
1.	D0082088	04.18.07	Not mapped
2.	D0084099	03.08.08	Not mapped
3.	D0083742	03.08.08	Not mapped Proj. # on distr. line rpt. = D0083742 Proj. # on as built/dsgn. = D0083743
4.	D0080845	11.21.06	Not mapped
5.	4525 Rd. 68, Kennewick	01.25.07	Not mapped
6.	6501 W. 6 th Ave, Kennewick	11.16.07	Not mapped
7.	224 Bear Dr., Richland	10.31.07	Not mapped
8.	6511 W. 5 th Ave, Kennewick	02.01.08	Not mapped
9.	9120 W. Clearwater Ave., Kennewick	03.27.07	Not mapped
10.	9115 W. Clearwater Ave., Kennewick	11.16.06	Not mapped
11.	3914 Road 104, Pasco	12.24.07	Not mapped
12.	3910 Road 104, Pasco	10.06.06	Not mapped
13.	1915 Road 84, Pasco	11.28.06	Not mapped at location identified on service card
14.	5109 Road 68, Pasco	03.26.08	Not mapped
15.	2855 Duportail St., Richland	11.08.06	Not mapped at location identified on service card
16.	2885 Duportail Dr., Richland	09.28.07	Not mapped
17.	3065 Bluffs Dr., Richland	11.27.06	Not mapped
18.	3059 Bluffs Dr., Richland	02.05.07	Not mapped

- h. *Leak Survey Mapping Records*. Cascade has not updated mapping records used to complete leak surveys. Examples follow:

	<u>Project/Map No.</u>	<u>Completion Date</u>	<u>Issue</u>
1.	D0082088	04.18.07	Not mapped
2.	D0084099	03.08.08	Not mapped
3.	D0083742	03.08.08	Not mapped Proj. # on distr. line rpt. = D0083742 Proj. # on as built/dsgn. = D0083743
4.	D0080845	11.21.06	Not mapped
5.	4525 Rd. 68, Kennewick	01.25.07	Not mapped
6.	6501 W. 6 th Ave, Kennewick	11.16.07	Not mapped
7.	224 Bear Dr., Richland	10.31.07	Not mapped
8.	6511 W. 5 th Ave, Kennewick	02.01.08	Not mapped
9.	9120 W. Clearwater Ave., Kennewick	03.27.07	Not mapped
10.	9115 W. Clearwater Ave., Kennewick	11.16.06	Not mapped
11.	3914 Road 104, Pasco	12.24.07	Not mapped
12.	3910 Road 104, Pasco	10.06.06	Not mapped
13.	1915 Road 84, Pasco	11.28.06	Not mapped at location identified on service card
14.	5109 Road 68, Pasco	03.26.08	Not mapped
15.	2855 Duportail St., Richland	11.08.06	Not mapped at location identified on service card
16.	2885 Duportail Dr., Richland	09.28.07	Not mapped
17.	3065 Bluffs Dr., Richland	11.27.06	Not mapped
18.	3059 Bluffs Dr., Richland	02.05.07	Not mapped

- i. *Patrolling Mapping Records.* Cascade has not updated mapping records used for patrolling. Examples follow:

	<u>Project #/Map No.</u>	<u>Completion Date</u>	<u>Issue</u>
1.	D0082088	04.18.07	Not mapped
2.	D0084099	03.08.08	Not mapped
3.	D0083742	03.08.08	Not mapped Proj. # on distr. line rpt. = D0083742 Proj. # on as built/dsgn. = D0083743
4.	D0080845	11.21.06	Not mapped
5.	4525 Rd. 68, Kennewick	01.25.07	Not mapped
6.	6501 W. 6 th Ave, Kennewick	11.16.07	Not mapped

7.	224 Bear Dr., Richland	10.31.07	Not mapped
8.	6511 W. 5 th Ave, Kennewick	02.01.08	Not mapped
9.	9120 W. Clearwater Ave., Kennewick	03.27.07	Not mapped
10.	9115 W. Clearwater Ave., Kennewick	11.16.06	Not mapped
11.	3914 Road 104, Pasco	12.24.07	Not mapped
12.	3910 Road 104, Pasco	10.06.06	Not mapped
13.	1915 Road 84, Pasco	11.28.06	Not mapped at location identified on service card
14.	5109 Road 68, Pasco	03.26.08	Not mapped
15.	2855 Duportail St., Richland	11.08.06	Not mapped at location identified on service card
16.	2885 Duportail Dr., Richland	09.28.07	Not mapped
17.	3065 Bluffs Dr., Richland	11.27.06	Not mapped
18.	3059 Bluffs Dr., Richland	02.05.07	Not mapped

TENTH (10TH) CAUSE OF ACTION (RECORDKEEPING): See Complaint

ELEVENTH (11TH) CAUSE OF ACTION (PERIODIC REVIEW FOR EFFECTIVENESS) – See Complaint