Washington Utilities and Transportation Commission
Intrastate Gas Distribution System
Inspection Guide and Report

Pipeline Company Name	**Avista Utilities**	Docket#	**UG-020575**
Pipeline Company Contact	**Mike Faulkenberry**	Company ID#	**112**
Address	**1411 East Mission**	Facility Insp. #	**84**
City	**Spokane**		
Telephone	**(509) 495-8499**	Fax	**(509) 495-4070**

Pipeline Inspection Facility (Unit):

Name	**Goldendale & Stevenson**	
Address	**150 West Main**	
City	**Goldendale**	
Telephone	**(509) 773-4833**	**(509) 773-4801**

Operator Representatives

Name and Title	**Harold Sheeran – Construction Manager** **Richard Landerville – Gas Local Representative** **Linda Burger – Pipeline Safety Specialist** **Bill Baker – Gas Training and Codes**

WUTC Representatives

Name and Title	**Wayne Wienholz II – Pipeline Safety Engineer** **Scott Rukke – Pipeline Safety Engineer**

Inspection Dates	**June 17th through June 21st, 2002**
Date of Last Inspection	**June 5th, 2001**

Pipeline Facility History

Age (Range)

Goldendale – 1959 Stevenson - 1963

Size (Range)

½" thru 4"

Material Type

Steel and Polyethylene with little ABS left in Goldendale

Specifications

Medium Density Plastic

Miles of Main

34

Number of Services

Goldendale – 900 Stevenson - 300

Number of Leaks (Mains and Services)

0

Leaks Scheduled for Repair

0

Gas Transportation Company

Williams Pipeline West

Reporting Requirements

1. Does the operator submit an Annual Distribution report? (CFR 191.11 & WAC 480-93-200)

Yes

2. Does the operator notify the WUTC by telephonic notice of a specified incident as required? (CFR 191.5 & WAC 480-93-183, 200 & 210)

Yes

3. Are 30-day written reports following a specified incident sent to WUTC as required? (CFR 191.9 & WAC 480-93-183, & 200)

Yes

4. Has the Maximum Allowable Operating Pressure (MAOP) been established for the pipeline? (CFR 192.619, 192.621, 192.623 & WAC 480-93-183)

Yes, O & M Manual 4.15

5. Procedures for Continuing Surveillance? (CFR 192.613)

Yes, O & M Manual 4.11

a. Has appropriate action been taken concerning changes in:

i. class location?

Yes

ii. failures?

Yes

iii. leakage history?

Yes

iv. corrosion?

Yes

b. Cathodic protection and other unusual conditions?

Yes

6. Procedures for Odorization? (CFR 192.625 & WAC 480-93-015)

Yes, O & M Manual 4.18

a. Does the operator conduct periodic sampling?

Yes

b. Is the gas odorized to 1/5 LEL?

Yes

7. Procedures for Patrolling? (CFR 192.721)

Yes, O & M Manual 5.15

a. Have patrolling areas been identified?

Yes

b. Have mains located in business districts been patrolled at intervals not exceeding 4½ months but at least 4 times each calendar year where anticipated physical movement or external loading could cause failure or leakage?

Yes

c. Have mains located outside business districts been patrolled at intervals not exceeding 7½ months but at least twice each calendar year where anticipated physical movement or external loading could cause failure or leakage?

Yes

8. Have valves which might be required during an emergency been serviced at intervals not exceeding 15 months, but at least once each calendar year? (CFR 192.747)

Yes Goldendale – 5 Stevenson - 2

9. Have vaults 200 cubic feet or more been inspected at interval not exceeding 15 months, but at least once each calendar year? (CFR 192.749)

N/A

a. Does the inspection include repairing gas leaks, vents, and vault covers?

N/A

10. Procedures for Leakage Surveys? (CFR 192.723 & WAC 480-93-188)

Yes, O & M Manual 5.11

a. Have business district areas been identified and defined?

Yes

b. Have gas detector surveys been conducted in the business districts at intervals not exceeding 15 months, but at least once each calendar year? (CFR 192.723(b)(1))

Yes

c. Have leakage surveys of the distribution system outside of the principal business areas been conducted as frequently as necessary, but at intervals not exceeding five years? (CFR 192.723(b(2))

Yes

d. Have leakage surveys of cast iron, wrought iron, ductile iron, or non-cathodically protected steel pipe been conducted at intervals not exceeding eight months, but at least twice each calendar year? (WAC 480-93-188(e))

N/A

11. Has the operator provided for calibration and maintenance of leak detection instruments? (WAC 480-93-188(2))

Yes

12. Procedures for Leak Repairs? (CFR 192.703 & WAC 480-93-186)

Yes, O & M Manual 5.11

a. Have leaks been appropriately classified Grade 1, Grade 2, or Grade 3?

No, See Non-compliance

Avista personnel discovered a leaking valve while performing routine annual valve maintenance. This leak was not graded as required by WAC 480-93-186.

b. Have Grade 1 leaks been repaired or eliminated or continuous action taken as required?

Yes

c. Have Grade 2 leaks been repaired or eliminated within 15 or 21 months?

Yes

d. Have Grade 2 leaks been reevaluated at least once every 6 months?

Yes

e. Have Grade 3 leaks been reevaluated within 15 months?

Yes

13. Procedures for Inspecting and Testing Regulating Stations? (CFR 192.739)

Yes, O & M Manual 5.12

a. Have regulating stations been inspected at intervals not exceeding 15 months, but at least once each calendar year?

Yes

b. In good mechanical condition?

Yes

c. Adequate from the standpoint of capacity and reliability of operation?

Yes

d. Set to function at the correct pressure?

Yes

e. Properly installed and protected from dirt, liquids or other conditions that might prevent proper operation?

Yes

14. Procedures for Testing Relief Valves? (CFR 192.743)

Yes, O & M Manual 5.12

a. Have relief devices (RV) been tested at intervals not exceeding 15 months, but at least once each calendar year?

Yes

b. Does RV have sufficient capacity?
Yes

c. Have RV been set at the proper set point?
Yes

15. Tele-metering or Recording Gauges? (CFR 192.741)
N/A

a. Are any pipeline systems supplied by more than one district regulating station?
No

b. Are tele-metering or recording gauges installed?
No

c. Are there any indications of abnormally high or low pressure?
No

d. Are unsatisfactory operating conditions being corrected?
Yes

16. Procedures for line markers? (CFR 192.707, WAC 480-93-120 & 124)
Yes, O & M Manual 5.15

a. Are line markers installed at class 1 & 2 locations?
Yes

b. Are line markers installed at all bridge, railroad, irrigation and drainage ditch crossings?
Yes

c. Do the line markers include the current name, telephone number, and the word Warning, Caution, or Danger?
Yes

17. Does the operator have a written Damage Prevention program? (CFR 192.614, WAC 480-93-190 & RCW Title 19.122)
Yes

a. Member of a one-call system? If so provide I.D. number. (WAC 480-93-190 & 192.614)

Yes, WAPOW01

b. Does the operator have available a current list of Excavators? (192.614©(1))
Yes, in Spokane

c. Provide notification concerning the program to the public and excavators? (192.614©(2))
Yes

d. Provide means for receiving and recording notification of pending excavations? (192.614©(3))
Yes

e. Provide for markings within two business days?
Yes

f. Provide for follow up inspections of the pipeline where there is reason to believe the pipeline could be damaged? (192.614©(6)
Yes

G. Provide for action to protect pipeline when an excavator is using drilling or boring equipment?
Yes

18. Does the operator have a comprehensive public education program that includes customers, the public, appropriate government and excavators, that teaches them how to recognize and report a gas pipeline emergency? (CFR 192.616)
Yes

a. Does the program reach all areas in which the operator has pipeline facilities?
Yes

b. Is the program conducted in English and other languages (commonly understood by a significant number and concentration of the non-English speaking population in the operator's area)?
Yes

19. Procedures for Abandonment and Inactivation of Facilities? (CFR 192.727)
Yes, O & M Manual 5.16

a. Disconnecting abandon pipe from the supply of gas?
Yes

i. Purge the pipe of gas?

Yes

ii. Seal all open ends?

Yes

b. Lock or prevent the service valve from being opened on all discontinued services?

Yes

20. Procedures for Purging the Pipeline? (CFR 192.629)

Yes, O & M Manual 3.17

a. Provide for purging of the pipeline of air or gas?

Yes

21. Procedures for tapping pipelines under pressure? (CFR 192.627)

Yes, O & M Manual PE 3.24 & Steel 3.32

a. Provide training that qualifies personnel to perform hot taps?

Yes

22. Procedures to prevent accidental ignition? (CFR 192.751)

Yes

a. Removal of ignition sources?

Yes

b. Provide fire extinguisher?

Yes

c. Prevent welding or cutting on pipelines containing combustible mixtures?

Yes

d. Post warning signs?

Yes

23. Procedures for Failure Investigation? (CFR 192.617)

Yes, O & M Manual 4.14

a. Do the procedures established require analyzing accidents & failures, including laboratory analysis where appropriate, to determine the cause and to minimize a recurrence?

Yes

24. Procedures & test requirements for re-instated or temporarily disconnected service lines? (CFR 192.725)

Yes, O & M Manual 5.17

25. Does the operator have a procedure to move or lower a gas pipeline? (WAC 480-93-175)

Yes, O & M Manual 3.12

26. Procedures for testing all pipelines that will be installed by new construction, replacement, or repair? (CFR 192.503)

Yes, O & M Manual PE 2.13 and Steel 2.12

Transmission Pipeline

27. How does the operator patrol the pipeline R/W for factors that may affect safety and operation of the pipeline? (CFR 192.705)

walk ☐ drive ☐ fly ☐ other ☐

a. Does the operator follow up on problems noted?

N/A

b. Are records adequate?

N/A

28. Are maximum intervals between patrols in accordance with the table? (CFR 192.705)

N/A

29. Are transmission line valves that might be required during an emergency inspected and partially operated once a calendar year not exceeding 15 months (CFR 192.745)

N/A

30. Procedures for leakage surveys of transmission lines available? (CFR 192.706 & WAC 480-93-188)

N/A

31. What types of leakage surveys are conducted?

N/A

32. Have leak surveys been conducted at intervals not exceeding 15 months, but at least once each calendar year? (CFR 192.706)

N/A

33. Does the operator have non-odorized natural gas transmission lines? (CFR 192.706)

N/A

a. Is the operator in compliance with WAC 480-93-015?

N/A

b. Are leak surveys using a gas detector conducted in class 3 locations, at intervals not exceeding 7½ months, but at least twice each calendar year?

N/A

c. Are leak surveys using a gas detector conducted in class 4 locations not exceeding 4½ months, but at least four times each calendar year?

N/A

Corrosion Control - Cathodic Protected Pipelines

34. Are corrosion control procedures under the responsibility of a qualified person? (CFR 192.453)

Yes

35. Which of the 5 criteria for cathodic protection in Appendix D does the operator use? (CFR 192.463)

-0.85 volt

36. Does the selected criteria from Appendix D meet the requirements of this part? (CFR 192.463)

Yes

37. Are buried pipelines cathodically protected? (WAC 480-93-110)

No, See Non-compliance

Avista has an undetermined number of short sections of steel main and isolated steel service risers that do not have adequate cathodic protection applied. The following were found to have inadequate or no levels of cathodic protection applied:

a. ***320 Columbus St., Goldendale. Reading of –0.40 volt.***
b. ***908 Columbus St., Goldendale. Reading of –0.43 volt.***
c. ***125 Brooks St., Goldendale. Reading of –0.77 volt.***
d. ***127 Brooks St., Goldendale. Reading of –0.38 volt.***
e. ***608 Golden St., Goldendale. Reading of –0.12 volt.***
f. ***610 Golden St., Goldendale. Reading of –0.56 volt.***
g. ***525 Collins, Goldendale. Reading of –0.43 volt.***
h. ***NW Manufacturing, Cascade Ave, Stevenson. Reading of –0.49 volt.***
i. ***Two-inch steel wrapped main on Mill St Bridge over Little Klickitat River. Reading of –0.52 volt.***
j. ***Three quarter inch main in the 600 block of Golden St., Goldendale. Readings taken from services.***

38. Are buried pipelines electrically isolated from other underground structures? (CFR 192.467)

Yes

39. Are casings inspected for electrical shorts annually? (CFR 192.467 & WAC 480-93-115)
Yes

40. Are casings that are in contact with the carrier pipeline surveyed within 90 days to determine if a hazardous condition exists? (CFR 192.467 & WAC 480-93-115)
Yes

a. Are leak surveys conducted every 90 days?
Yes

41. What measures are taken to mitigate corrosion of the encased pipeline when isolation is impractical? (CFR 192.467©)
90 Day Leak Survey

42. Are insulating devices kept from areas where a combustible atmosphere may be anticipated? (CFR 192.467(e))
Yes

43. Protection provided to the pipelines against damage due to fault currents where pipelines are located in close proximity to electrical transmission tower footings? (CFR 192.467(f))
Yes

44. Has each pipeline that is cathodically protected been tested at least once each calendar year, but with intervals not exceeding 15 months? (CFR 192.465(a))
Yes

45. Has each cathodic protection rectifier been inspected at least six times each calendar year, but with intervals not exceeding 2½ months? (CFR 192.465(b))
Yes

46. Are sufficient test stations available to insure adequate cathodic protection? (CFR 192.469)
No, See Non-compliance

Staff located a section of 2 inch Steel Wrapped (STW) pipe that does not have cathodic protection. The pipeline is attached to the Mill St. Bridge.

Staff located a three quarter inch main, located in the 600 block of Brooks St., which serves four individual services that do not have cathodic protection.

The existing test sites for these systems did not detect the deficiencies.

47. Are there any separately protected or isolated pipelines less than 100 feet? (CFR 192.465)

Yes

48. Are 10% of the separately protected or isolated lines monitored each calendar year with a different 10% checked each subsequent year, so that the entire system is tested in each 10-year period? (CFR 192.465)

Yes

49. Are all exposed pipelines examined for evidence of corrosion and coating deterioration? (CFR 192.459)

Yes

50. Are records kept? (CFR 192.491©)

Yes

Corrosion Control - Non-cathodically Protected Pipelines

51. Are effectively coated steel mains and service lines install before August 1, 1971 cathodically protected? (CFR 192.457)

Yes

52. Does the operator have bare pipelines?

No

a. Are they cathodically protected? (CFR 192.457(b))

b. Are unprotected bare pipelines re-evaluated at intervals not exceeding 3 years? (CFR 192.465(e))

53. Have active corrosion leaks been found? (WAC 480-93-112)

N/A

a. Does the operator investigate further to determine the extent of the corrosion? (WAC 480-93-112)

b. Is cathodic protection provided in areas of active corrosion? (CFR 192.457 & WAC 93-112)

Internal Corrosion Control

54. Is corrosive gas being transported by pipeline? (CFR 192.475)

No

55. Whenever a pipe segment is removed from a pipeline, has it been examined for evidence of internal corrosion? (CFR 192.475(b))

N/A

56. Have coupons been utilized and checked two times each calendar year, but with intervals not exceeding 7 ½ months? (CFR 192.477)

N/A

Atmospheric Corrosion Control

57. Have above ground facilities installed after 7/31/71, been cleaned and coated? (CFR 192.479)

Yes

58. Have above ground facilities, installed before 8/1/71, been investigated for corrosion and if it exists, are the facility cleaned and coated? (CFR 192.479)

Yes

59. Has the operator re-evaluated piping exposed to the atmosphere at intervals not to exceed 3 years for onshore piping and where necessary, taken remedial action? (CFR 192.481)

Yes

Remedial Measures

60. Does the operator have remedial action requirements? (CFR 192.483)

Yes

61. Are remedial actions taken within 90 days of discovering low PS reads? (WAC 480-93-110)

Yes

62. Does new and replacement steel pipe have a protective coating that meets the requirements of CFR 192.461?

Yes

Corrosion Control Records

63. Does the operator maintain records or maps showing the location of cathodically protected pipe and facilities for as long as the pipeline remains in service? (CFR 192.491)

Yes

64. Does the operator retain records of each test, survey, and inspections for at least 5 years? (CFR 192.491)

Yes

Joining Of Pipeline Materials (Welding)

65. Does the operator have qualified written welding procedures? (CFR 192.225)
Yes

66. Does the operator have the destructive test results that qualify each procedure? (CFR 192.225)
Yes

67. Are the welders qualified in accordance with CFR 192.227 & 229?
Yes

68. Are welds inspected and tested in accordance with CFR 192.241?
Yes

Plastic Jointing

69. Is plastic pipe used? (CFR 192.59)
Yes

70. Manufacturer and type of plastic used?
Driscope, Plexco

71. What types of jointing are performed?
Socket, Electro-fusion, Perfection

72. Written procedures established for jointing? (CFR 192.273)
Yes

73. Have procedures been qualified? (CFR 192.283)
Yes

74. Have the individuals been qualified? (CFR 192.285)
Yes

75. Are the individuals qualified to inspect joints? (CFR 192.287)
Yes

76. Are all materials properly marked? (CFR 192.63)

Yes

Operation and Maintenance

77. Does the Operating and Maintenance Plan include the following: (CFR 192.603, 605 & WAC 480-93-180)

a. Is the manual reviewed and updated at intervals not exceeding 15 months, but at least once each calendar year?

Yes

b. Instructions for employees covering O&M procedures during normal operations and repairs?

Yes

c. Instructions for the repair of the pipeline?

Yes

d. Instruction for controlling corrosion?

Yes

e. Making construction records, maps and operating history available to appropriate operating personnel?

Yes

f. Gathering of data needed for reporting incidents under part 191 and WAC rules in a timely and effective manner?

Yes

g. Starting up and shutting down any part of the pipeline in a manner designed to assure operation within the MAOP?

Yes

h. Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found?

Yes

i. Are precautions in excavated trenches listed that will protect personnel from hazards of unsafe accumulation of gas?

Yes

78. Are breathing apparatus, rescue harness, and lines available?

Yes

79. Does the operator use pipe-type or bottle-type holders? (CFR 192.605(B)(10))

No

a. Provide for detecting external corrosion before the strength of the container has been impaired?

b. Periodic sampling and testing of gas in storage to determine the dew point of vapors contained in the stored gas which, if condensed, might cause internal corrosion or interfere with the safe operation of the storage plant?

c. Periodic inspection and testing of pressure limiting equipment to determine that it is in a safe operating condition and has adequate capacity?

80. The following procedures were not found in the O&M plan:

81. Has the operator established procedures that require notification to customers that the operator does not maintain customer piping and is subject to potential hazards of corrosion and leaks? (CFR 192.16)

Yes

82. Has the operator notified each customer (not later than August 14, 1996, or 90 days after the customer first receives gas at a particular location) of potential hazards as listed in the rule? (CFR 192.16)

Yes

83. Has the operator established procedures to require notification to customers that the installation of an excess flow valve is available to customers that have a new natural gas service line installed or a service line replaced, provided that the customer bears the cost of the installation? (CFR 192.383)

Yes

a. Does the excess flow valve meet the performance standards prescribed under Section CFR 192.381?

Yes

Emergency Plan

84. Does the operator have a written emergency plan? (CFR 192.615)

Yes

85. Does the plan include the following:

a. Instructions for the handling of notices of events that require immediate response by the operator? (CFR 192.615(a))

Yes

b. Means of communicating with appropriate public officials regarding possible emergency? (CFR 192.615(a)(2))

Yes

c. Prompt response to each of the following emergencies: (CFR 192.615(a)(3))

i. Gas detected inside or near a building?

Yes

ii. Fire near a pipeline?

Yes

iii. Explosion near a pipeline?

Yes

iv. Natural disaster?

Yes

d. Does the plan provide a description of the types of personnel, equipment, tools, & material that may be required at the scene of each type of emergency? (CFR 192.615(a)(4))

Yes

e. Provisions directed towards protecting people first, then property? (CFR 192.615(a)(5))

Yes

f. How & where to perform emergency shutdown or pressure reductions? (CFR 192.615(a)(6))

Yes

g. Investigating & rendering safe any actual or potential hazard to life or property? (CFR 192.615(a)(7))

Yes

h. Does the investigator include procedures and action to protect life in the event that there are multiple leaks and migration of gas into nearby buildings? (66 FR 28027

5/21/01)

Yes

i. Check for gas accumulation in nearby building?

Yes

ii. Take steps to promptly stop the flow of gas?

Yes

i. Directions for notifying additional public officials required at the emergency scene and coordinating activities with these officials? (CFR 192.615(a)(8))

Yes

j. Instructions for safely restoring service outages? (CFR 192.615(a)(9))

Yes

k. Provisions for investigating accidents and failures as soon after the emergency as possible? (CFR 192.615(a)(10))

Yes

86. Has the operator made provisions for:

a. Furnishing applicable portion of the emergency plan to supervisory personnel who are responsible for emergency action? (CFR 192.615(b)(1))

Yes

b. Training appropriate employees as to the requirements of the emergency plan? (CFR 192.615(b)(2))

Yes

c. Reviewing activities following actual or simulated emergencies to determine if they were effective? (CFR 192.615(b)(3))

Yes

d. Establishing mutual liaison with fire, police, & other public officials, such that each is aware of the other's resources and capabilities in dealing with gas emergencies? (CFR 192.615(c))

Yes