

Jones, Al (UTC)

From: Faulkenberry, Mike [mike.faulkenberry@avistacorp.com]
Sent: Wednesday, February 03, 2010 3:00 PM
To: Jones, Al (UTC)
Subject: FW: Odessa Data Request #5
Attachments: Document.pdf

Al:

Per your request to me in an e-mail today, February 3, 2010, I am providing four(4) pages of the obsolete standards.

Mike Faulkenberry, P.E.
Chief Gas Engineer
Office Phone (509) 495-8499
Cell Phone (509) 990-2386

Mike,

This data request is part of the Commission investigation of the December 26, 2008 gas incident at Odessa, WA.

Please provide copies of Washington Water Power's (WWP) procedures for backfilling around PE gas mains for 1981 and 1982. It is my understanding the WWP's Gas Standards Procedure for 1982 is Sepc. 8.012. Thank you, -Al

Al Jones
Pipeline Safety Engineer
Utilities and Transportation Commission
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-----Original Message-----

From: HP Digital Sender [mailto:C01MFP@avistacorp.com]
Sent: Wednesday, February 03, 2010 2:51 PM
To: Faulkenberry, Mike
Subject:

Please open the attached document. This document was digitally sent to you using an HP Digital Sending device.

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OBSOLETE

CONSTRUCTION DETAILS (Cont.)

Trenching and Plowing

All trenching, regardless of depth, dug by machine or hand, in earth, gravel, lawns, loose rock or soft rock, street pavement and concrete, shall be considered part of installation costs of "Natural Gas Facilities Construction", "Casing Installation", or "Gas Services". Trenching in solid rock shall be classified as "Excavation, Solid Rock" for the cubic yardage of solid rock actually removed to neat trench dimensions during trenching, but allowance shall be given for full length of pipe trench actually opened under classification of "Natural Gas Facilities Construction", "Casing Installation" or "Gas Services" in addition to the cubic yardage allowed for solid rock excavation.

Trench excavated in earth, gravel or loose rock, shall provide a minimum cover of thirty (30) inches over the top of pipe of all mains.

Width of trench shall be sufficient to allow for raising and lowering pipe, or otherwise handling pipe therein without damage to pipe or pipe coating. The width of the trenches shall be 12 inches plus the O.D. of the pipe for sizes 4 1/2" O.D. and greater. Trenches for pipe sizes under 4 1/2" O.D. may be less than 12 inches wide, providing that sufficient width is allowed to facilitate necessary slack in plastic piping.

Contractor shall provide and install shoring, if at any time it appears that absence of such shoring and cribbing may cause damage to buildings, structures or street surfaces adjacent to the trench. Shoring shall be installed where required by appropriate regulatory and/or safety standards.

When the bottom of the trench consists of sharp rock or large boulders in the soil, a minimum of 6-inch padding consisting of non-corrosive soils, spoil fines or sand, shall be laid before the pipe is lowered into position. Then an additional 6-inch cover of padding materials shall be laid over the top of the pipe before the balance of the backfill is returned to the trench. When spoil fines are insufficient or inadequate, additional padding material shall be furnished, as ordered by the Inspector, and will be classified as "Special Padding".

Except by special permission from the Inspector, no trench shall be excavated more than three hundred (300) feet in advance of pipe laying nor left unfilled for more than seven hundred (700) feet where pipe has been laid.

Bottom of trench shall be clean and free of rock or other hard objects, stumps or roots, that might damage coating. Pipe shall rest on solid, undisturbed earth, or on padding as described above, but in event trench is excavated to excessive depth, backfill prior to installation of pipe shall be thoroughly tamped to meet approval of Inspector.

APPROVED <i>David E. Dennis</i> THE WASHINGTON WATER POWER COMPANY GAS STANDARDS	DATE MAY 10 1982	CONSTRUCTION SPECIFICATIONS SPEC. 576	REV. NO. DATE 9 OF _____ SPEC. 8.012
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OBSOLETE

CONSTRUCTION DETAILS (Cont.)

Trenching and Plowing (Cont.)

When so ordered by Inspector, concrete pads shall be placed under pipe at Owner's expense to prevent settlement of pipe. Padding shall be placed between such concrete pads and pipe.

Contractor shall protect and maintain vehicular and pedestrian traffic in a manner as described below.

No public street or alley or driveway shall be completely blocked for excess periods of time. Length of time will be ascertained by City and County ordinances and the Inspector. Methods for providing traffic crossings will be left to the Contractor, but shall be in accordance with City and County rules and ordinances. In the event a street, alley or roadway is to be closed to traffic, proper warning signs shall be placed at the entrance or entrances to the blocked section and the Fire Department and/or City officials are to be notified before any street, alley or roadway is closed for traffic.

Boring or tunneling (other than for Casing Installation under highways and railroad) may be ordered by the Inspector where, in his opinion, trenching would be undesirable. Boring or tunneling, so ordered, shall be paid for under the unit price bid for boring or tunneling. In all cases, size of hole bored shall not be larger than necessary to insert size of pipe to be installed without damage to pipe or pipe coating.

If or when any sewer line or drain tile in the City and County street, alleys and roadways or on private property is damaged repairs shall be made, at Contractor's expense. Contractor shall install adequately supported wood V troughs, split pipe or other type steel troughs, at every point where sewer line or drain line is above pipe line. These troughs shall be installed beneath the sewer line to keep them from sagging due to settlement of soil in the trench. Before any trench is backfilled, sewer line or drain tile which has been damaged or removed shall be permanently repaired or replaced with like kind and size to the satisfaction of the Inspector.

Water lines in most instances will be located below gas pipe lines, however, caution must be maintained and locations determined by Contractor through contact with water department or water companies. Repairs and replacements of water lines shall be at Contractor's expense.

Location of telephone, telegraph, TV and electric underground cables shall be determined by Contractor through contact with electric, telephone, TV and telegraph companies to avoid cutting into them and interrupting service. Repairs to, or replacement of, any cable shall be at Contractor's expense.

APPROVED <i>David C. Dennis</i>	DATE MAY 10 1982	CONSTRUCTION SPECIFICATIONS SPEC. 576	REV. NO. DATE
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OBSOLETE

CONSTRUCTION DETAILS (Cont.)

Trenching and Plowing (Cont.)

Location of all buried electric cables, gas mains and gas services belonging to Owner shall be determined by Contractor through contact with Owner to avoid interruption of service. Repairs to, or replacement of, any electric cable or gas pipe line damaged by Contractor shall be at Contractor's expense.

Highway crossings made by trenching without casing installation shall be considered part of "Natural Gas Facilities Construction", except that required permits shall first be obtained before trench is opened. All state or local highway department requirements shall be met as to the manner of performance of the work.

In trenching creeks, small streams, ravines, cross ditches and water courses, the Contractor shall generally lay the pipe horizontally throughout the bed of the stream, ravine or cross ditch at a sufficient depth so that flood water will not affect the pipe by scouring action of the stream. Contractor shall notify the State and local water pollution control and Shoreline Management authorities at least five (5) working days prior to beginning construction through any flowing waterway.

In trenching for Gas Services, the following specification shall apply:

- a. Each buried service line must be installed with at least 12" of cover in private property and at least 18" of cover in streets and roads. The finished grade must be determined, if possible, before service terminal is installed.
- b. Trenching in streets, alleys and unimproved property may be machine dug and care shall be exercised so that curbing, sidewalks and other structures shall not be so damaged by Contractor's equipment and whenever possible, boring methods shall be used under these structures.
- c. Trenching in improved property may be machine dug if prior permission of the property owner has been secured by the Inspector. If requested by property owner, sod or other vegetation covering any trenches shall be removed and carefully stored and shall be replaced to the satisfaction of the Inspector, after backfilling and cleanup. Reseeding of grass areas shall be done as required by the Inspector. Grass and other vegetation adjacent to the trench shall be protected.

APPROVED <i>David B. Demino</i>	DATE MAY 10 1982	CONSTRUCTION SPECIFICATIONS SPEC. 576	REV. NO. DATE
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OBsolete

CONSTRUCTION DETAILS (Cont.)

Trenching and Plowing (Cont.)

Plastic pipe may be "plowed in" or "planted" only when permitted by the owner. The equipment used shall be of sufficient size and power to maintain the proper depth. Verification of the depth and condition of the pipe shall be performed by digging test holes as directed by the inspector.

A trench shall be excavated at the starting point to permit entry of the plow without causing excessive bending of the pipe.

A #12 copper Type TW locator or tracer wire shall be installed above all mains and shall be installed by feeding through the planting shoe in such a manner that the wire is not injured.


All plastic pipe not encased shall have a conducting tracer wire buried with the pipe. A #12 copper type TW tracer wire (with yellow installation) shall be installed between 6 and 2 inches from all plastic mains and services. All mains and service tracer wires shall be connected together and electrically connected to all coated steel sections of pipe and fittings. Cathodic protection shall be applied at specified intervals.

Casing Installation

Wherever casing is installed under state highway, railroad, irrigation ditch or any other structure, crossings shall be made by dry boring or driving, where these methods are feasible. Contractor will notify the proper official, in charge of the structure to be crossed, not less than three (3) working days prior to the scheduled commencement of work in order that said officials may arrange for a duly authorized representative to be present when the actual construction is in progress.

In case rock or other obstructions prevent construction of crossings by preferred dry boring or driving, the work shall be performed by tunneling or trenching as may be necessary. The removal of solid rock shall be classified and paid for as "Excavation, Solid Rock" for the cubic yardage of solid rock actually removed within the neat trench dimensions during tunneling, or trenching, but allowance shall also be given for full length of casing installed under the classification "Casing Installation". Where tunneling or trenching methods are considered necessary by the contractor, no such work shall be performed until permission has been given by the inspector, and the construction of the crossing in this manner shall be performed in a manner satisfactory to the authorities concerned, with temporary bracing, sheeting or shoring installed in an approved manner.

Where railroad, highway, street or other crossings have been bored, tunneled or trenched for construction of crossings, casings of the diameter, wall and grade specified in the crossing permit shall be installed and connected to provide the required lengths. The length of casing will be governed by requirements contained in permits obtained from the governing authorities. Casing shall be sealed and vented in a manner approved by the governing authorities.

 GAS STANDARD	CONSTRUCTION SPECIFICATIONS SPEC. 576	REV <u>1</u> DATE <u>4-29-92</u> APPROVED <i>Atkins</i> PG 12 STD 8.012
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