

Avista Utilities

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October 10, 2003

IPUC Commission Secretary
472 W. Washington
P.O. Box 83720
Boise, ID 83720-0074

IDAHO PUBLIC
UTILITIES COMMISSION

Re: Waiver for above ground plastic pipe in steel casing
DOT § 192.321 (a)

AVU-G-03-02

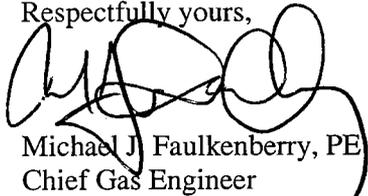
Dear IPUC:

Avista Corporation is requesting a waiver for an above ground 6-inch PE pipe in steel casing. The pipe is scheduled to be installed in the November 2003 timeframe across the South Fork Palouse River on the U.S Highway 95 Bridge in Moscow, Latah County, Idaho. The design of the pipe and casing system is as follows:

- The MAOP of this gas line is 60 PSIG.
- The 10-inch steel casing will terminate below ground level on both sides of the bridge.
- The casing will be suspended from a new 67-foot length concrete bridge (Idaho Transportation Department Project No. BR-4110(147)).
- A boot-type end seal will be used at both ends of the casing to positively seal between the casing and gas carrier pipe.
- Casing vent pipes will be installed to prevent the possible buildup of pressure and to detect leakage of gasses.
- Casing insulators (thinsulators) will be installed and spaced at a minimum of 5 feet to provide positive separation between the casing and carrier pipe.
- Casing pipe is housed under the open-girder bridge and consequently will be shielded from the effects of direct sunlight.
- The computed design pressure for PE pipe (SDR 11.5) at 120 degrees F is 61 PSIG; the highest recorded temperature for the area is 109 degrees F. Gas pressure within the pipe on the bridge will therefore not exceed system MAOP due to ambient temperature.
- The maximum thermal contraction of the PE pipe is calculated to be 13.0 inches. Since the ends of the pipe are "fixed" by the burying of the facility at the ends of the bridge, this contraction will be exhibited as internal stresses. The internal stress is calculated to be 737 psi which is less than the 1000 psi HDB rating of the PE pipe.

If you have any questions, please contact my Project Engineer, Randy K. Bareither at (509) 495-8716.

Respectfully yours,


Michael J. Faulkenberry, PE
Chief Gas Engineer

CC: Ron Law, Executive Administrator, IPUC