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Program Support Group

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April 8, 2002

To: All Managers

From: Richard Stehr, Acting Director
Program Support Group

Re: Mn/DOT Accommodation Policy Change for Utility Crossings of Trunk Highways

As directed by the Minnesota Office of Pipeline Safety and the Mn/DOT Office of Technical Support, the Mn/DOT Accommodation Policy changes for utility crossings are detailed as follows:

All high pressure pipelines six inches in diameter or greater carrying gasses and all pipelines carrying hazardous liquids crossing (Mn/DOT) highways shall be cased, unless the following conditions are met:

Open trenching method

Pipelines placed by an open trench method must be of sufficient inherent strength to withstand the forces imposed by highway and vehicular traffic and must be coated or of a non-corrosive material that meets industry standards.

Trenchless technology

Pipelines placed using trenchless technology, such as jacking, boring, or horizontal directional drilling methods, may be placed under highways without a casing pipe if they meet specified requirements. All proposed crossings using this method of installation will be reviewed and approved on a case-by-case basis considering the soil conditions, location of pipeline, pipeline size, other pertinent factors, and adherence to the following requirements:

1. It is a welded steel pipeline.
2. It is cathodically protected.
3. It is coated in accordance with accepted industry standards.
4. It complies with federal and state requirements and meets accepted industry standards regarding wall thickness and operating stress levels.
5. The depth of the crossing is a minimum of 3 feet below the original ditch grade.
6. The bores are continuous from the beginning of the installation until the leading edge of the pipeline is through the entire crossing.
7. The completed pipeline crossings are all pressure tested.
8. During pipeline installation, traffic on the highway will not be restricted and all Mn/DOT regulations will be applied.
9. Grouting will be done along the top of the pipe to fill all voids.
10. Large mains that are abandoned in the highway right-of-way will be removed or filled with approved materials.

If you have any questions, please call Len Leitner, Utility Permit Supervisor, at (651) 296-8655.

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Additional Information was requested by Ron Wiest and clarified by Len Lietner in e-mail messages and is re-capped below.

1) There are some less than 6 inch lateral lines that could be involved. Could they ever be uncased?

To answer question no.1: lines under six inches do not require a casing in our policy. They would be required to meet the requirements of this new memo.

2) (9. Grouting will be done along the top of the pipe to fill all voids.) What type of grout materials are acceptable and is there an acceptance standard to determined voids exist and are filled?

To answer question no. 2: MN rules 8810.3600 in our utility permit states that: All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement. We usually recommend a bentonite slurry to be used. Most voids will be encountered during the placement of the pipe and taken care of as you stated. I have heard that there are methods of determining large voids under the ground but I have seen them in action.