

Log P-82-41-20

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 13, 1982

Forwarded to:

Mr. Howard Hawks
President
Northern Plains Gas Company
(Managing Partner for the Northern
Border Pipeline Company)
224 South 108th Street
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SAFETY RECOMMENDATION(S)

P-82-41

The National Transportation Safety Board has reviewed the Notices published by the Materials Transportation Bureau (MTB) of the U.S. Department of Transportation: "Petition for Waiver" and "Grant of Waiver," Docket No. 82-3W, Notices Nos. 1 and 2, which appeared at 47 FR 16248 and 47 FR 20715 on April 15, 1982, and May 13, 1982, respectively. Both Notices concerned the repair of girth weld defects in approximately 635 miles of 42-inch diameter gas transmission pipeline constructed by the Northern Border Pipeline Company (Company). This pipeline section was constructed in 1981 through the States of Montana, North Dakota, Minnesota, and Iowa. The Notices also concerned "possible repair of defects in approximately 181 miles (of pipeline) to be constructed in 1982."

As reported in Notice No. 1, the weld defects were not detected by the Company's x-ray technicians responsible for quality assurance, but rather when an audit of the weld x-rays was performed after the pipe was buried. The Safety Board is concerned that important issues raised by the audit were not addressed in your petition, for example:

1. Why were these weld flaws not detected and corrected immediately after they were x-rayed?
2. Why did weld flaws occur only in the eastern sector and not in the western sector of this pipeline?
3. Were the x-ray technicians properly qualified and adequately experienced?
4. Were the welders properly qualified for the procedures used?
5. Did the Company employ enough qualified inspectors to assure that all welding was done in compliance with its standards?


It is apparent that in constructing the 635-mile pipeline, the Company did not perform adequately the inspection and testing required by 49 CFR 192.241, nor did it meet the applicable provisions of the 15th Edition of API Standard 1104, "Standard for Welding Pipe Lines and Related Facilities." However, in granting the requested waiver, the MTB did not require any action to correct, for future construction, those areas of noncompliance by the Company. Nevertheless, the Safety Board believes that the Company should take action to minimize the possibility of future pipeline construction containing flawed girth welds or other defects. Further, the Board believes that a priority concern of the Company should be to ascertain the answers to the questions above and to initiate corrective action.

Therefore, the National Transportation Safety Board recommends that the Northern Border Pipeline Company:

Revise its quality assurance program (1) to provide high qualification standards for x-ray technicians and (2) to prescribe procedures which will result in the detection and repair or replacement of girth weld defects before a pipeline is buried. (Class I, Urgent Priority) (P-82-41)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "...to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations." (P.L. 93-633). The Safety Board is vitally interested in any actions taken as a result of a response from you regarding action taken or contemplated with respect to the recommendation in this letter.

BURNETT, Chairman, GOLDMAN, Vice Chairman, McADAMS, BURSLEY, and ENGEN, Members, concurred in this recommendation.


By: Jim Burnett
Chairman 