

STATE OF IOWA
DEPARTMENT OF COMMERCE
UTILITIES BOARD

IN RE: MIDAMERICAN ENERGY COMPANY	DOCKET NOS. WRU-06-35-156 PSA-07-1
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**ORDER HOLDING WAIVER REQUEST IN ABEYANCE AND OPENING PIPELINE
SAFETY DOCKET**

(Issued February 27, 2007)

PROCEDURAL BACKGROUND

On December 27, 2006, MidAmerican Energy Company (MidAmerican) filed with the Utilities Board (Board) a request for a waiver of 199 IAC 19.5(2)"a"(2) and 49 CFR 192.321, which prohibit plastic natural gas pipe from being installed above ground except in certain specific and limited circumstances. The requirement is part of minimum federal safety standards established in 49 CFR Part 192 for natural gas pipelines by the U.S. Department of Transportation (US DOT) and adopted by the Board. The standards apply to natural gas pipelines owned and operated by MidAmerican and other Iowa gas utilities.

MidAmerican is requesting a permanent waiver for all current and future installations of anodeless risers that will connect pressure recording and monitoring devices to gas distribution mains that are not in proximity to a regulator station. An anodeless riser consists of a metal sleeve to protect plastic natural gas pipe installed above ground. MidAmerican points out that 49 CFR 192.321 provides that plastic

pipe must be installed below ground, except for temporary installations or in a metallic sleeve on bridges, and 49 CFR 192.375 allows plastic service pipe to be installed above ground outside a building if it is protected against deterioration and external damage. MidAmerican points out that by interpretation, 49 CFR 192.375 allows installation of an anodeless riser to connect a pressure recording device to a steel or plastic service pipe, but does not allow the installation of anodeless risers to connect a pressure recording device to steel or plastic mains.

If granted, the waiver would allow MidAmerican to install anodeless risers to be used at pressure recording and monitoring devices connected to gas distribution mains that are not located near a regulator station and would allow MidAmerican to retain anodeless risers in these types of locations that have already been installed. The pressure recording and monitoring devices affected are generally located in rights-of-way and at locations selected by MidAmerican for the purpose of monitoring system pressure and providing data used in system design. Pressure and monitoring devices at or adjacent to town border stations or regulator stations will not be affected.

Rule 199 IAC 1.3 establishes four criteria that must be satisfied for the Board to grant a waiver. The four criteria are: (1) the application of the rule would pose an undue hardship on the person for whom the waiver is requested; (2) the waiver would not prejudice the substantial legal rights of any person; (3) the provisions of the rule subject to a petition for waiver are not specifically mandated by statute or another

provision of law; and (4) substantially equal protection of public health, safety, and welfare will be afforded by a means other than that prescribed in the rule for which the waiver is requested.

MidAmerican states the cost of bringing existing pressure recording stations into compliance would be in excess of \$100,000 and there would be additional costs for maintaining and monitoring corrosion control on isolated steel risers if the waiver is not granted. MidAmerican states that these costs would pose an undue hardship for MidAmerican and the costs would not be offset by improved safety or efficiency.

MidAmerican states that it is not aware of any persons who may be adversely affected by granting this waiver and there is no statutory prohibition to waiving these standards. In fact, federal law provides for waiver based upon a review by the state, with the state action subject to review by the US DOT. MidAmerican states that substantially equal protection of public health, safety, and welfare will be afforded, since the waiver request will be reviewed by the Board and its federal counterpart to ensure the installations are safe or the waiver will not be granted.

MidAmerican indicates that anodeless risers are used extensively and safely on service lines at locations next to buildings. MidAmerican states that the anodeless risers located at remote locations are safer than at meter sets next to buildings and the same riser specifications as used at meter sets would be used for anodeless risers installed pursuant to the waiver. MidAmerican states that if the waiver is not granted, a steel pipe segment must be used to bring gas above ground from a plastic

main, creating isolated cathodic protection zones with resultant monitoring costs and increased safety risk from potential corrosion.

MidAmerican argues that granting the waiver would be consistent with federal efforts to minimize isolated cathodic zones, as evidenced by the anodeless riser provision in the federal rules and recently-adopted regulations allowing the use of plastic pipe on bridges. The waiver would allow use of standardized design to simplify design and reduce construction errors and would allow pressure-recording charts and monitors to be placed at the best locations. Finally, MidAmerican suggests that if the waiver is not granted, replacing existing anodeless risers would require construction near active gas facilities, creating a risk which, while minimal, is greater than leaving the existing riser in service.

BOARD DISCUSSION

The Board enforces these federal standards under a certificate granted by the U.S. Department of Transportation, Office of Pipeline Safety (OPS), pursuant to 49 U.S.C.A. § 60105. Pursuant to the certificate granted by OPS, the Board may grant a waiver of a federal pipeline safety regulation, however, a state waiver must be submitted to OPS for review and OPS has 60 days to stay the waiver if it disagrees with the state.

Plastic pipe, primarily made from polyethylene, is widely used for natural gas distribution piping. Around 90 percent of distribution mains and service lines installed today will be plastic. Federal natural gas pipeline safety standards allow plastic pipe

to be used at pressures up to 125 psig (pounds per square inch gauge), although most installations are at the more common distribution pressures of 60 psig or less. Plastic has largely replaced steel pipe because it is less expensive, easier to join and install, and does not corrode.

However, plastic pipe is more easily physically damaged, ultraviolet light from sunlight can degrade plastic, and material strength may be affected by extremes of hot and cold temperatures. For these reasons, federal standards at 49 CFR 192.321(a) require plastic pipe be installed below ground, with a few specific exceptions where it has at least some protection from these limitations. Federal standard 49 CFR 192.375(a)(2) allows plastic service lines outside a building to terminate above ground if: 1) the above ground part is protected against deterioration and external damage and 2) the plastic pipe does not support external loads. A typical use of this exception would be to have the plastic pipe rise out of the ground to the meter set inside of a steel pipe. The steel outer pipe provides protection and carries any weight, while the plastic contains the gas pressure. Because the steel riser does not contain gas pressure, it need not be protected by a sacrificial anode against corrosion, hence the nomenclature "anodeless riser." Under federal standards, the anodeless riser installations are allowed at service line terminations only.

The Board's Safety and Engineering section has reviewed the waiver request and indicated to the Board that there appears to be no technical issues concerning

installing plastic pipe above ground in the manner proposed by MidAmerican. However, Board staff reported that MidAmerican has a history in this regard that should be considered. During inspections of MidAmerican gas facilities in the Des Moines, Iowa, area in 2003, Board staff found 11 instances of probable violations of 49 CFR 192.321(a) where MidAmerican had installed anodeless risers at regulator station outlets and two other locations where plastic pipe was improperly used above ground. When these situations were brought to MidAmerican's attention, the company responded by letter dated September 29, 2003, that the cited plastic pipe would be replaced with steel at all locations.

On November 1, 2005, the Manager of the Safety and Engineering section, Don Stursma, sent a letter to MidAmerican questioning whether MidAmerican was placing sufficient emphasis on compliance with safety standards and ensuring the safe operation of its gas system. The letter indicates that corrective actions needed to be taken as scheduled and if compliance concerns continue, Board staff was prepared to request the Board issue a show cause order for possible civil penalties against MidAmerican.

During inspections in 2005 and 2006, Board staff found that two other regulator stations were constructed in 2005 using anodeless risers on control lines. On July 13, 2006, MidAmerican, in a letter responding to this latter inspection, admitted these installations did not comply with MidAmerican's own standards. In the letter, MidAmerican indicated that it replaced the two anodeless risers with steel

pipng and put in place procedures to ensure violation of federal safety standards did not occur again.

This history of probable violations for improper installation of anodeless risers raises some serious concerns, especially in light of the request for waiver of 49 CFR 192.321 for both current and future installations. It is the Board's understanding that MidAmerican has removed the anodeless risers cited in Board inspections in 2003 and 2005-2006 and replaced them with steel pipe, however, based upon the request for waiver of all current installations and the estimated cost of over \$100,000, it appears that MidAmerican has a number of other existing installations that do not comply with federal standards.

Before it can consider the waiver request, the Board will need more specific information about the number and location of the installations that currently exist and the reason they were not constructed in compliance with MidAmerican's standards and federal and Board safety standards. In addition, the Board is concerned that MidAmerican may not be placing sufficient emphasis on ensuring compliance with Board and federal safety standards, since the problem with anodeless risers has existed for several years and appears to be continuing. An after-the-fact waiver of Board rules and federal standards may not be an appropriate method of achieving compliance with safety standards. The Board has the responsibility of inspecting natural gas utilities for operation in a safe manner and in compliance with the federal standards. Before it can address a waiver of safety standards, the Board considers it

necessary to ensure MidAmerican has appropriate safety procedures in place and is taking sufficient action to ensure compliance.

In order to determine whether MidAmerican has procedures in place to ensure compliance with natural gas pipeline safety standards, the Board will open a pipeline safety docket, Docket No. PSA-07-1, to review MidAmerican's practices and procedures. Initially, the Board will require MidAmerican to file a report listing the current locations of all known anodeless risers that are noncompliant, a description of the anodeless risers, and the reason the risers were not constructed in compliance with safety standards. MidAmerican will also be required to file in the report a description of the steps MidAmerican is taking to ensure compliance with all federal and Board safety regulations currently and in the future. The report will be due March 30, 2007.

Iowa Code § 476.51 provides that after written notice by the Board of a specific violation, the utility violates the same provision of this chapter, the same rule adopted by the Board, or the same provisions of an order lawfully issued by the Board, the utility shall be subject to a civil penalty, which may be levied by the Board, of not less than one hundred dollars nor more than two thousand five hundred dollars per violation. MidAmerican had notice of the violation of 199 IAC 19.5(2)"a"(2) of the Board's rules in the November 1, 2005, letter from Don Stursma. The Board will consider in this docket whether MidAmerican should be subject to civil penalties for failure to address the issues raised by Mr. Stursma.

ORDERING CLAUSES

IT IS THEREFORE ORDERED:

1. The waiver request filed on December 27, 2006, in Docket No. WRU-06-35-156 is held in abeyance.
2. Docket No. PSA-07-1 is opened to review compliance with federal and Board pipeline safety regulations by MidAmerican Energy Company.
3. MidAmerican Energy Company shall file a report on or before March 30, 2007, as described in this order.
4. MidAmerican Energy Company is put on notice that the Board will consider whether civil penalties should be assessed pursuant to Iowa Code § 476.51 for violation of federal and Board safety regulations.

UTILITIES BOARD

/s/ John R. Norris

/s/ Curtis W. Stamp

ATTEST:

/s/ Judi K. Cooper
Executive Secretary

Dated at Des Moines, Iowa, this 27th day of February, 2007.