



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: February 27, 2003

In reply refer to: P-03-4

Mr. Jeff Littleton
Executive Director
NACE International
1440 South Creek Drive
Houston, Texas 77084-4906

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge your organization to take action on the safety recommendation in this letter. The Safety Board is vitally interested in this recommendation because it is designed to prevent accidents and save lives.

This recommendation addresses the prevention of internal corrosion in natural gas pipelines. The recommendation is derived from the Safety Board's investigation of the August 19, 2000, natural gas pipeline rupture and subsequent fire near Carlsbad, New Mexico, and is consistent with the evidence we found and the analysis we performed. As a result of this investigation, the Safety Board has issued four safety recommendations, one of which is addressed to NACE International. Information supporting this recommendation is discussed below. The Safety Board would appreciate a response from you within 90 days addressing the actions you have taken or intend to take to implement our recommendation.

At 5:26 a.m., mountain daylight time, on Saturday, August 19, 2000, a 30-inch-diameter natural gas transmission pipeline operated by El Paso Natural Gas Company (EPNG) ruptured adjacent to the Pecos River near Carlsbad, New Mexico. The released gas ignited and burned for 55 minutes. Twelve persons who were camping under a concrete-decked steel bridge that supported the pipeline across the river were killed and their three vehicles destroyed. Two nearby steel suspension bridges for gas pipelines crossing the river were extensively damaged. According to EPNG, property and other damages or losses totaled \$998,296.¹

The National Transportation Safety Board determined that the probable cause of this accident was a significant reduction in pipe wall thickness due to severe internal corrosion. The severe corrosion had occurred because EPNG's corrosion control program failed to prevent, detect, or control internal corrosion within the company's pipeline. Contributing to the accident

¹ For additional information, see National Transportation Safety Board, *Natural Gas Pipeline Rupture and Fire Near Carlsbad, New Mexico, August 19, 2000*, Pipeline Accident Report NTSB/PAR-03/01.

were ineffective Federal inspections of EPNG that did not identify deficiencies in the company's internal corrosion control program.

In the years leading up to the accident, EPNG had access to industry standards and guidelines, such as those contained in NACE standard RP-01-75, "Control of Internal Corrosion In Steel Pipelines and Piping Systems," regarding the detection and control of internal pipeline corrosion. But the company did not incorporate that guidance into its internal corrosion procedures. The Safety Board therefore concluded that, before the accident, EPNG did not have in place an internal corrosion control program that was adequate to identify or mitigate the internal corrosion that was occurring in its pipelines.

As shown by this accident, pipeline failure due to internal corrosion can have serious consequences and, in the view of the Safety Board, industry standards and recommended practices such as NACE RP0175-75 can be of significant benefit to pipeline operators. The Safety Board notes, however, that RP0175-75 has not been reviewed and renewed by NACE and that, in fact, it has been withdrawn and is available only as a historical document. The Safety Board is concerned that, because RP0175-75 is not considered current and may contain outdated information, pipeline operators may not have easy access to information that could contribute significantly to the establishment of an effective internal corrosion control program. Even though the Safety Board has been told by NACE representatives that the society is working on a new standard to replace RP0175-75, no timetable has been given for the completion of this effort.

The National Transportation Safety Board therefore makes the following safety recommendation to NACE International:

Establish an accelerated schedule for completion of an industry standard for the control of internal corrosion in steel pipelines that will replace or update NACE standard RP0175-75. (P-03-4)

The Safety Board also issued safety recommendations to the Research and Special Programs Administration. In your response to the recommendation in this letter, please refer to P-03-4. If you need additional information, you may call (202) 314-6177.

Acting Chairman HAMMERSCHMIDT and Members GOGLIA and CARMODY concurred in these recommendations.

original signed

By: John A. Hammerschmidt
Acting Chairman