



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: January 6, 1998

In reply refer to: P-97-5

Honorable Rodney Slater
Secretary
US Department of Transportation
Washington, DC 20590

About 8:30 a.m. on November 21, 1996, because of a propane gas leak, a commercial building in San Juan, Puerto Rico, exploded. Thirty-three people were killed, and more than 80 were injured.

The building was in Río Piedras, a shopping district in San Juan. The structure was a six-story mixture of offices and stores owned by Humberto Vidal, Inc. The company's administrative offices occupied the third, fourth, fifth, and sixth floors, and the first and second floors housed a jewelry store, a record store, and a shoe store.¹

The National Transportation Safety Board determines that the probable cause of the propane gas explosion, which was fueled by an excavation-caused gas leak, in the basement of the Humberto Vidal, Inc., office building was the failure of San Juan Gas Company, Inc., (SJGC) to oversee its employees' actions to ensure timely identification and correction of unsafe conditions and strict adherence to operating practices and the failure of the SJGC to provide its employees with adequate training.

Also contributing to the explosion was the failure of the Research and Special Programs Administration/Office of Pipeline Safety (OPS) to oversee effectively the pipeline safety program in Puerto Rico, the failure of the Puerto Rico Public Service Commission (PSC) to require the SJGC to correct identified safety deficiencies, and the failure of Enron Corp. to oversee adequately the operation of the SJGC.

¹ For more information, read Pipeline Accident Report—*San Juan Gas Company, Inc./Enron Corp. Propane Gas Explosion in San Juan, Puerto Rico. on November 21, 1996* (NTSB/PAR-97/01).

Contributing to the loss of life was the failure of the SJGC to adequately inform citizens and businesses of the dangers of propane gas and the safety steps to take when a gas leak is suspected or detected.

Well before the accident, the PSC inspectors had identified, documented, and formally notified the SJGC of probable safety violations. However, while the SJGC did not totally ignore the notices, its responses indicate that it saw little urgency about making corrections. The PSC's 1992 and 1993 inspections documented 16 and 20 probable violations, respectively; five violations were the same for both years.

At the OPS's urging in 1993, the PSC levied a small monetary penalty against the SJGC in 1994. In 1995, PSC inspectors documented more than 80 probable violations. A PSC inspector testified at the June 1997 public hearing that he had discussed the 1995 inspection results with SJGC management; however, the PSC could produce no documents proving that it had either notified the SJGC or told the PSC commissioners of any need to take formal action against the SJGC. The PSC did not take any formal action against the SJGC for failing to correct the probable violations; and in 1996, PSC inspectors documented more than 50 probable violations. More than 30 were the same as those documented in 1995. Again, the PSC was unable to produce written documentation showing that the SJGC had been notified.

The PSC's most recent inspections demonstrate that it has recognized the need to inspect SJGC operations more thoroughly; however, until the explosion, the PSC did not enforce its safety requirements aggressively.

The OPS is responsible for evaluating the PSC's pipeline safety program. At the June 1997 public hearing, the OPS southern region director, whose responsibilities include overseeing Puerto Rico, advised that it is essential to the success of a program, as well as a requirement of the certification, that the agency be able to enforce the regulations by levying civil penalties as appropriate. He also said that if a State finds violations but does not notify the operator and follow up to make sure the violations are corrected, the OPS will call the deficiency to the attention of the PSC.

The region director said that the PSC's program has improved steadily since 1992. "Today, there is more support from the PSC commissioners for the pipeline safety program, and this is especially true for the past couple of years since one commissioner pledged his cooperation to the OPS and his support for the pipeline safety staff."

Each year, the OPS evaluates the PSC's performance during the previous year. During the 1970s and 1980s, the OPS sent letters to the PSC specifying the deficiencies in SJGC operations and followed up with the PSC to ensure that corrective action had been taken. Based on the OPS's letters to the PSC in the 1990s, the OPS concentrated, almost to the exclusion of all other needs, on obtaining equipment to enable PSC staff to better perform its inspections and on establishing an excavation-damage prevention program for Puerto Rico.

Although the OPS has been trying to improve the PSC's pipeline safety program, since 1993, the OPS has given the PSC's pipeline safety program high scores despite significant

deficiencies. The problem was compounded by the OPS's letters to the PSC's president; the letters gave no indication the program needed significant improvements, such as the development of written procedures to guide its staff on documenting and notifying an operator of probable violations or the development of an effective enforcement program.

The OPS did notify the PSC in 1993 of its concern about the PSC's 1992 inspection findings of 16 probable violations, and it advised the PSC that it should seriously consider using civil penalties to force the SJGC to make corrections. As a result, the PSC did levy a monetary penalty. Since then however, the OPS has not recommended that the PSC take any enforcement actions, even after the Río Piedras explosion. Based on its latest evaluation, the 1996 evaluation, the OPS awarded the PSC a rating of 97 for its pipeline safety program, including giving it the highest possible rating for its compliance program. The OPS awarded these ratings even though the PSC in 1996 had told the SJGC that it had more than 50 probable violations, of which 30 had been identified in 1995. The PSC has not yet made a determination about whether the SJGC has corrected the probable violations or whether further enforcement action is necessary.

The Safety Board agrees with the OPS that the States usually can provide more resources than the OPS does for monitoring pipeline operations and that when possible, the responsibility for monitoring should remain with the State. However, the OPS retains overall responsibility; and through its monitoring of State programs, it must ensure that pipelines are operated in a manner that provides adequate public safety. The Safety Board also agrees that the OPS should work with the States to help them maintain and improve their programs. However at no time should the OPS's objective of keeping States in the pipeline safety program take precedence over its responsibility for ensuring that pipeline systems are safely operated and maintained to preserve public safety.

Each year, after the OPS had evaluated the PSC's pipeline safety program, it scored the program's effectiveness and gave the PSC president a numerical grade. The PSC's enforcement program received the maximum allowable points in each of the 3 years. For the past 3 years, the PSC's pipeline safety program received overall scores of 95, 97, and 97, respectively. The scores would indicate little, if any, need for improvement. The Safety Board concludes that the OPS's evaluation scores for the PSC before the Río Piedras explosion misled the PSC commissioners about the need to bring enforcement action against the SJGC.

The OPS may have given the PSC program high ratings because the questions on the OPS's evaluation form were poorly designed and because the OPS's evaluators lacked written guidance on how to rate various aspects of a State program. The evaluation questions that the Safety Board reviewed were loosely framed, and the evaluators' assessments of the answers seemed to be subjective rather than based on specific, uniform criteria.

When a State program is not functioning, the OPS must fill the gaps; any time public safety is being compromised, the OPS must act. The Safety Board believes that in view of the events preceding the Río Piedras explosion, the OPS must improve its State pipeline safety certification program. The OPS must develop written guidance and criteria that its personnel can use to evaluate State programs objectively, and the OPS must require States to be prompt in correcting identified program deficiencies.

The Safety Board concludes that the OPS failed to effectively monitor Puerto Rico's pipeline safety program. The Safety Board is concerned that the deficiencies in the PSC's pipeline safety program were allowed to exist for so long without the OPS recognizing them and notifying the PSC commissioners about the need for corrective actions. The Safety Board concludes that the Río Piedras accident might have been prevented had the OPS been timely in notifying the PSC commissioners that the ineffectiveness of the PSC's enforcement was endangering public safety and had it insisted that the PSC require the SJGC to promptly correct all deficiencies. Had the PSC's oversight been effective, the SJGC brigade leaders might have been properly trained in detecting subsurface gas leaks and, therefore, able to locate and repair the gas leaks on Camelia Soto before the explosion. The Safety Board believes that the OPS needs to reassess the effectiveness of its State monitoring program.

Therefore the National Transportation Safety Board issues the following recommendation to the U.S. Secretary of Transportation:

Improve the Department of Transportation's State pipeline safety evaluation program by developing written guidance and evaluation criteria to assist the Research and Special Programs Administration/Office of Pipeline Safety personnel in objectively evaluating State programs and in requiring States to promptly correct identified program deficiencies. (P-97-5)

Also, the Safety Board issued Safety Recommendations P-97-6 through -8 to the Research and Special Programs Administration, P-97-9 and -10 to the Puerto Rico Public Service Commission, P-97-11 and -12 to Enron Corp., and P-97-13 to Heath Consultants, Inc.

Please refer to Safety Recommendation P-97-5 in your reply. If you need additional information, you may call (202) 314-6468.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in this recommendation.

By: 
Chairman