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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2012-0176]

Pipeline Safety: Inspection and Protection of Pipeline Facilities after Railway Accidents

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; Issuance of Advisory Bulletin.

SUMMARY: PHMSA is issuing an advisory bulletin to alert all pipeline owners and operators of the circumstances of the Cherry Valley, Illinois derailment and remind them of the importance of assuring that pipeline facilities have not been damaged either during a railroad accident or other event occurring in the right-of-way. Further, the advisory bulletin reminds pipeline owners and operators of the importance of providing pertinent information to rail operators and emergency response officials during an incident. This information should include the presence, depth and location of the pipelines so that the movement of heavy equipment and debris on the right-of-way does not damage or rupture the pipeline or otherwise pose a hazard to people working in, and around, the accident location. The advisory also encourages pipeline owners and operators to inform rail operators and emergency response officials of the benefits of using the 811 “Call Before You Dig” program to identify and notify underground utilities that an incident has occurred in the vicinity of their buried facilities.

FOR FURTHER INFORMATION CONTACT: David Appelbaum by phone at 202-366-1419 or by e-mail at david.appelbaum@dot.gov. Information about PHMSA may be found at <http://phmsa.dot.gov>.

SUPPLEMENTARY INFORMATION:

Background

On Friday, June 19, 2009, at approximately 8:36 p.m., CST, a Canadian National Railway Company (CN) freight train U70691-18, traveling eastbound at 36 mph, derailed at a highway/rail grade crossing in Cherry Valley, Illinois. The train consisted of two locomotives and 114 cars, 19 of which derailed. All of the derailed cars were tank cars carrying denatured fuel ethanol, a flammable liquid. Thirteen of the derailed tank cars were breached or lost product and caught fire. At the time of the derailment, several motor vehicles were stopped on either side of the grade crossing waiting for the train to pass. As a result of the fire that erupted after the derailment, a passenger in one of the stopped cars was fatally injured, two passengers in the same car received serious injuries, and five occupants of other cars waiting at the highway-rail crossing were injured. Two responding firefighters also sustained minor injuries. The release of ethanol and the resulting fire prompted a mandatory evacuation of about 600 residences within a 1/2-mile radius of the accident site.

The National Transportation Safety Board (NTSB) determined that the probable cause of the accident was the washout of the track structure that was discovered about one hour before the train's arrival, and CN's failure to notify the train crew of the known washout in time to stop the train because of the inadequacy of CN's emergency communication procedures.

At the site of the derailment was a 12-inch diameter underground natural gas transmission pipeline operated by Nicor Gas. The pipeline well exceeded Federal standards for protective ground cover. Yet, as the wreckage was removed from above the pipeline, Nicor's crews discovered that a railcar wheel and axle assembly had impinged on the pipeline. Although the pipeline was buried about 11 feet deep and protected within a 16-inch diameter casing, the rail car wheels impacted and severely dented the pipeline. The impact caused a severe flattening of the pipe casing with sharp angular bends at two locations where it was contacted by the rail car wheel assembly. This degree of deformation to the 16-inch casing pipe likely caused similar damage to the 12-inch carrier pipe. The NTSB concluded that had the gas pipeline been installed at the railroad crossing with the minimum level of ground cover permitted by the current Federal and industry pipeline construction standards, it likely would have failed as a result of being struck by derailed equipment in this accident.

Advisory Bulletin (ADB-2012-08)

To: Owners and Operators of Hazardous Liquid and Gas Pipeline Systems.

Subject: Inspection and Protection of Pipeline Facilities after Railway Accidents.

Advisory: To further enhance the Department's safety efforts, PHMSA is issuing this advisory bulletin as a reminder for pipeline owners and operators to appropriately inspect and protect pipeline facilities following railroad accidents that occur in pipeline right-of-ways.

As illustrated in the June 19, 2009, Cherry Valley, Illinois train derailment, buried pipelines are susceptible to damage even when depth-of-cover protection exceeds minimum Federal requirements. Pipeline owners and operators should inspect their facilities following a

railroad accident or other significant event occurring in right-of-ways to ensure pipeline integrity. Also, during response operations, pipeline owners and operators need to inform rail operators and emergency response officials of the presence, depth and location of the pipelines so that the movement of heavy equipment on the right-of-way does not damage or rupture the pipeline or otherwise pose a hazard to people working in, and around, the accident location.

Additionally, PHMSA encourages pipeline owners and operators, as a part of their public awareness program, to inform rail operators and emergency response officials of the benefits of using the 811 “Call Before You Dig” program to identify and notify underground utilities that an incident has occurred in the vicinity of their buried facilities.

Linda Daugherty

Deputy Associate Administrator for Policy and Programs

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