



Agenda Date: 3/18/15  
Agenda Item: 6B

**STATE OF NEW JERSEY**  
**Board of Public Utilities**  
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RELIABILITY & SECURITY

IN THE MATTER OF ALLEGATIONS OF ) ORDER  
VIOLATIONS OF PIPELINE SAFETY )  
REGULATIONS AND THE UNDERGROUND )  
FACILITY PROTECTION ACT BY PUBLIC )  
SERVICE ELECTRIC AND GAS COMPANY WITH )  
RESPECT TO A GAS PIPELINE INCIDENT IN )  
EWING, NEW JERSEY ON MARCH 4, 2014 ) DOCKET NO. GS15020140K

**Party of Record:**

**Alexander C. Stern, Esq.**, Public Service Electric and Gas Company

BY THE BOARD<sup>1</sup>:

This matter has been opened to the Board of Public Utilities ("Board") following an investigation by the Board's Bureaus of Pipeline Safety ("BPS") and One Call ("BOC") (collectively "Board Staff") of a natural gas incident that occurred on March 4, 2014 at the South Fork townhouse development in Ewing, New Jersey. Board Staff conducted a detailed and comprehensive investigation which included a review of the circumstances surrounding the incident as well as Henkels & McCoy, Inc.'s ("H&M")<sup>2</sup> and Public Service Electric and Gas Company's ("PSE&G") procedures and actions. Based on this investigation, it was determined that a build-up of natural gas accumulated in at least one of the townhouse units located at 24, 26, and 28 Crockett Lane, and ignited. The subsequent explosion and fire destroyed the three townhouse units and damaged approximately 52 additional units. The source of the ignition could not be determined. The explosion and fire caused one fatality of a townhouse resident and injured seven employees of the operator, PSE&G, and three employees of the excavator H&M.

<sup>1</sup> Commissioner Upendra J. Chivukula recused himself due to a potential conflict of interest and as such took no part in the discussion or deliberation of this matter.

<sup>2</sup> The Board's review of H&M's actions are addressed in a separate Order, In the Matter of Allegations of Violations of the Underground Facility Protection Act by Henkels & McCoy, Inc. with Respect to a Gas Pipeline Incident in Ewing, New Jersey on March 4, 2014, Docket No. GS15020141K, Dated March 18, 2015.

The investigation disclosed<sup>3</sup> that on February 5, 2014, a PSE&G customer at 28 Crockett Lane in Ewing, New Jersey, called PSE&G stating that the residence lost electric service. On February 6, 2014, PSE&G service personnel determined the residence at 28 Crockett Lane had a faulty underground electric service line. As a result, a temporary aboveground electric line was run from a neighboring meter to restore service until a permanent repair could be made. PSE&G returned to the residence on February 7, 2014 to attempt a repair of the underground electric service line, but was unable to do so. Consequently, PSE&G determined that a new underground electric service line was necessary to permanently restore service. A work order was sent to subcontractor H&M on February 12, 2014 to have a new underground electric service line installed. Nearly one month later, on March 4, 2014, H&M began working to install a new electric service line at 28 Crockett Lane.

H&M called for three emergency markouts the morning of March 4, 2014; the latter two calls refined and corrected the scope of the initial markout request. A PSE&G electric inspector responded to the requests and made markings utilizing PSE&G records indicating a joint trench installation. The inspector connected to a nearby electric transformer to first mark the primary electric, and then the secondary electric lines. Gas markouts were then performed based on the inspector's knowledge and understanding of their position and distance relative to the electric lines in the joint trench installation.

On March 4, 2014, the operator of the horizontal directional drilling ("HDD") machine used by H&M to install a new underground electric cable struck a mismarked PSE&G gas main beneath the driveway of 26 and 28 Crockett Lane. The odor of the leaking gas was detected by H&M personnel who, shortly thereafter, pulled back the drilling rods that were in the ground and notified the H&M office of the leak. H&M office personnel notified PSE&G's Trenton district office that a gas pipeline was damaged, and PSE&G assistance was needed. PSE&G advised H&M to call PSE&G's emergency phone number for gas leaks. H&M called the PSE&G emergency number and was connected to a customer service representative at PSE&G's Southern Inquiry and Accounting Center ("SIAC") to report the gas leak.

In post-accident interviews, the onsite H&M crew foreman stated that after the gas facility was hit, he put a paint mark at the location where he thought it was hit, and he advised the resident of 28 Crockett Lane of the gas leak, and that PSE&G was notified and was on its way to the site. He also verified that the resident's gas service was still on.

PSE&G personnel were subsequently dispatched to Crockett Lane in response to the emergency gas leak notification. An appliance service technician ("AST") was the first PSE&G employee to arrive at the site. The AST proceeded to take open air readings with a combustible gas indicator inside and outside 28 Crockett Lane and outside the attached inaccessible neighboring residences. At the time of the inside open air readings, the AST spoke with the resident of 28 Crockett Lane. Additional PSE&G personnel responded to the gas leak emergency between 12:06 p.m. and 12:30 p.m., including a distribution inspector, two gas distribution supervisors, and a street crew consisting of three employees. At approximately

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<sup>3</sup> During the course of the investigation into this incident, Board Staff determined that PSE&G may be in violation of certain Underground Facility Protection Act, N.J.S.A. 48:2-73 *et seq.* regulations that were not causally related to this incident and thus are addressed in a separate docket, In the Matter of Allegations of Violations of the Underground Facility Protection Act Regarding Public Service Electric and Gas Company's Compliance with Certain Underground Facility Protection Act Regulations and Prior One Call Board Orders, GS15020142K, Dated March 18, 2015.

12:30 p.m., the AST again spoke with the resident of 28 Crockett Lane, who remained in the townhouse.

Upon arrival, the PSE&G street crew members put on personal protective equipment and began hand digging over the gas service line to 28 Crockett Lane where PSE&G personnel reported hearing gas in an attempt to find the location of the gas leak. This hole was also located over the path of the HDD. The HDD point of entry into the ground was approximately 7 feet from the hole over the gas service line. It was reported that the hole over the gas service line was already dug to a depth of approximately one foot when the crew began hand digging. In post-accident interviews, it was stated that H&M initially dug at the service line location prior to starting the HDD. At approximately 12:50 p.m., gas from the damaged gas main ignited inside one of the townhouse units at 24, 26 or 28 Crockett Lane, causing an explosion and fire resulting in one fatality of a townhouse resident, and injuring seven employees of the operator, PSE&G, and three employees of the excavator H&M. The fire and explosion also destroyed the three units and damaged approximately 52 neighboring units. After the explosion, the natural gas ignited and burned for approximately 2 hours. Thereafter, PSE&G shut off a portion of the damaged natural gas main by closing a valve at Heritage Way, squeezing off the main near the corner of Heritage Way and Pioneer Court, and also squeezing off near 16 Crockett Lane. Gas services to nearby residences on Crockett Lane, Pioneer Court, and Heritage Court were turned off at their respective meter shutoff valve.

During the course of its interviews with H&M and PSE&G personnel, Board Staff became concerned with certain actions taken by both companies with regard to how they contributed to the incident. Regarding H&M, Board Staff was concerned with: (1) the utilization of emergency markouts; (2) the manner of hand digging and locating of marked, underground utility facilities in the area of the proposed drill path; (3) the manner of reporting the damage to PSE&G's gas facility; and (4) H&M's failure to contact local fire and police for assistance. Regarding PSE&G, Board Staff was concerned with: (1) PSE&G's actions prior to the explosion regarding its marking of gas facilities; (2) PSE&G's leak investigation; and (3) PSE&G's failure to contact local fire and police for assistance. Additionally, neither H&M nor PSE&G evacuated the residences in the vicinity of the damage prior to the explosion.

During the course of the investigation, the BPS identified several opportunities for PSE&G personnel to take action prior to the incident. As a result of the investigation, the BPS notified PSE&G that it had found several probable violations of pipeline safety regulations, including issues relating to:

- compliance with PSE&G's procedures for emergency response and leak investigation in response to a damaged, leaking gas facility;
- adequate response to a gas emergency involving gas detected near a building;
- protecting persons first and then property;
- seeking assistance from appropriate fire and police officials regarding the escaping gas emergency;
- expeditiously terminating the flow of gas during the course of the gas emergency.

In addition, Board Staff advised PSE&G that it was in probable violation of the New Jersey Administrative Code requirements pursuant to the Underground Facility Protection Act, N.J.S.A. 48:2-73 et seq. regarding both its failure to call 911 and the mismarking of its underground facilities.

PSE&G contested certain facts and conclusions relating to Board Staff's determinations that probable violations of law existed. PSE&G and Board Staff subsequently engaged in settlement

discussions pertaining to the identified probable violations. On February 17, 2015, PSE&G and Board Staff entered into a Stipulation and Settlement Agreement ("Stipulation") which, among other things, provides for a one-time payment to the Treasurer of the State of New Jersey in the amount of Seven Hundred Twenty-Five Thousand Dollars (\$725,000). As part of the Stipulation, PSE&G did not admit any wrongdoing nor violation of any law or regulation.

In addition to the \$725,000 payment amount referenced above, PSE&G agreed to take, or has already implemented, certain measures, and to amend PSE&G procedures to ensure compliance with all laws and its ongoing safe operation in New Jersey, which are summarized below and set forth more fully in the Stipulation.<sup>4</sup>

PSE&G shall review, amend and implement appropriate procedures relating to

- the roles, responsibilities, and anticipated sequence of actions for all of its emergency response personnel;
- quality assurance targeted at evaluations of gas leak emergencies to ensure effective leak investigations, evacuations, and corrective actions to minimize incident recurrence;
- communications of key findings among personnel during gas leak emergencies;
- how to locate natural gas pipelines in joint trench installations; and
- HDD performed by excavators.

In addition to the proposed amendments referenced above, the Stipulation and Settlement Agreement requires PSE&G to take various measures, outlined in the Stipulation, attached hereto, and summarized as follows:

- **Call Center and Dispatch Operations:** Reinforce and enhance Call Center and Dispatch Operations regarding certain calls. This will include enhanced training, drills and monitoring procedures, including their ability to record all Dispatch and Call Center calls.
- **Incident Command, Leak Investigation and Emergency Response:** Implement additional incident command training and procedures. These will include stressing the importance of local emergency response assistance, evacuation away from the site of a gas main and additional training sessions.
- **Manuals:** Review Dispatch, Gas Construction, Appliance Service and Call Center manuals and ensure alignment exists regarding emergency response procedures.
- **Training and Drills:** Perform training with Gas Distribution and Appliance Service supervision and field personnel by implementing Emergency Response Simulation Drills. PSE&G will also require certain gas leak emergency annual trainings for its personnel and excavation contractors.
- **First Responder Tracking:** PSE&G will start the development and implementation of a system to track the geographic locations of first responders in real-time.

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<sup>4</sup> Although described in this Order, should there be any conflict between this summary and the Stipulation, the terms of the Stipulation control, subject to the findings and conclusions in this Order.

- **Markout Procedures and Standards:** Reinforce Mark-out Procedures and Standards, including the implementation of a Mark-out Photograph and Retention process and enhance markout training for HDD safety.
- **South Fork Development Tracer Wire:** PSE&G shall investigate all plastic gas service lines in the South Fork Development to determine the existence of any non-joint trench service lines installed without tracer wire and take appropriate action to install tracer wire where required.

The Board and Board Staff take the responsibilities of investigating and addressing violations relating to natural gas and One Call incidences very seriously and appreciates the cooperation of all parties who have been involved in this matter, including H&M and PSE&G.

The Board reviewed the Stipulation and **HEREBY FINDS** it to be a reasonable settlement of the outstanding issues, in the public interest, in accordance with law and in accordance with the intent and purpose of the Natural Gas Pipeline Safety Act of 1968 as amended, 49 U.S.C.A. § 1671 et seq. and all regulations promulgated thereto, the Natural Gas Safety Act, N.J.S.A. 48:10-2, et seq. and all regulations promulgated thereto, N.J.A.C. 14:7, et seq., and the New Jersey Underground Facility Protection Act, N.J.S.A. 48:2-73, et seq., and all regulations promulgated thereto, N.J.A.C. 14:2, et seq. Therefore, the Board **HEREBY APPROVES** and **ADOPTS** the Stipulation as its own, incorporating by reference the terms and conditions therein as if fully set forth at length herein.

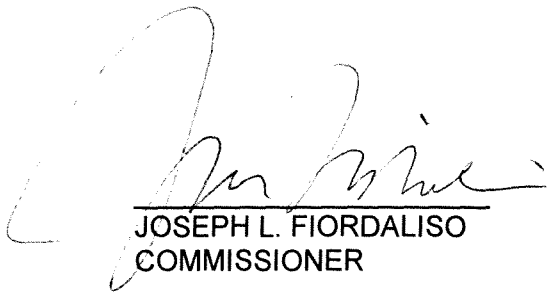
The Board **HEREBY ORDERS** PSE&G to comply with the terms of the Stipulation as presented.

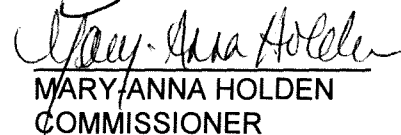
This Order shall be effective on March 27, 2015.

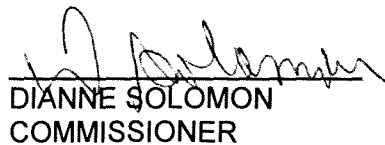
DATED: 3/18/15

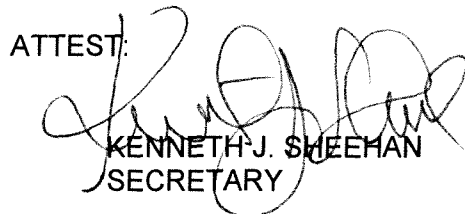
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I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities



IN THE MATTER OF ALLEGATIONS OF VIOLATIONS OF PIPELINE SAFETY  
REGULATIONS AND THE UNDERGROUND FACILITY PROTECTION ACT BY PUBLIC  
SERVICE ELECTRIC AND GAS COMPANY WITH RESPECT TO A GAS PIPELINE INCIDENT  
IN EWING, NEW JERSEY ON MARCH 4, 2014

DOCKET NO. GS15020140K

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