

Central Subway Safety Incident Report

Contract: CN 1252 - Tunnels

Subject: Striking of Gas Line
06-16-2013

Author of Report: Jeff Kraus

Date of Report: July 10, 2013

Persons Interviewed:

Colin Perkins, CJN-CJ Corporate Safety Director

Tom Baddeley, CJN

Ryan Streets, CJN

Mike Sinon, BIH Safety Manager

Mike Hanley, BIH

Ben Campbell, BIH

Alessandro Tricamo, BI

Gerald Williams, SFMTA

Event:

Shortly after I got into the office on Monday morning, Colin Perkins-the Corporate Safety Director for Condon-Johnson came to see me. He wanted to discuss the incident that occurred the previous day.

Briefly, the CJN joint venture was working to uncover a gas line so they could start jet grouting on Monday morning. While uncovering the gas line, they hit and dislodged a “nipple” or valve that was sticking straight up on the pipe. They had already uncovered the line on the west side of 4th street. They were following the identification wires to the east side. Part of the digging to uncover the line consisted of using the backhoe and then hand digging. At a certain point, the backhoe operator used the outside of the bucket to move material to ensure that the gas line was not struck.

It was during this procedure that the valve was dislodged causing gas to escape into the environment. From all of the personnel involved with this incident, the following items were identified:

1. During the hand digging portion of the operation the spoils or material was not moved far enough away from the pipe thus requiring the backhoe bucket to move material that was directly adjacent to the pipe.
2. The JHA for the excavations around operating utilities was not reviewed by the CJN Superintendent and Foreman or gone over with the field crew prior to starting this work activity.
3. The area/line had been USAd. (USA Ticket #0099022)

After the pipe was hit, the operator immediately called his superintendent who immediately called 911. BIH was also notified. The police were on the scene in less than two minutes as was the fire department. The SFFD advised the CJN Superintendent that PGE had been notified as well.

It took PGE almost two hours to arrive and turn the gas off. In the meantime, SFPD and SFFD evacuated a four block perimeter around 4th and Folsom. There were no injuries to workers or the public as of the writing of this report.

A meeting was held with SFMTA, BIH, and CJN to discuss the incident. They confirmed the activities described above.

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Other Pertinent Factors:

1. The contractor safety staff was not on-site nor was the Program Safety Manger.
2. The three week look-ahead schedule that was reviewed at the Weekly Progress meeting with BIH and CJN on June 13; did not show any work being conducted on Sunday, June 16. In addition, CJN reported in the meeting that they may do maintenance on June 16, but no actual work.
3. The Daily Work Plans submitted to the SFMTA by BIH were for Friday, June 14 and Saturday, June 15 only. No Daily Work Plan was submitted for work on Sunday, June 16.

Based on the above factors, it is evident that the work performed by CJN on Sunday, June 16 was unauthorized do to the lack of notification as required per the Contract of BIH and the SFMTA.

SFMTA Recommendations:

1. Any hand digging excavations around live utilities should require to workers to move the spoils farther away from the line. By performing this step, when the backhoe operator needs to move those spoils, the bucket will not be required to be directly adjacent to or actually touch the live utility line.
2. Foremen/Superintendents must review their company JHA prior to any work being performed on live utility lines.

Other Considerations:

I have researched the contract with regards to “safety specifications” and how they may relate to this circumstance. The conclusion that I have drawn is that the event that occurred on Father’s Day, June 16, 2013 should and will not cost SFMTA anything. The reason being is that there are numerous parts of the contract that clearly state that the contractor is responsible for “all” aspects of the event.

I have presented and highlighted the various parts of the contract that clearly indicate that the contractor is responsible for taking the necessary and appropriate actions to mitigate the problem at no cost to SFMTA.

ARTICLE 12 - SAFETY

12.01 PRECAUTIONS AND PROGRAMS

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall be solely responsible for any and all fines, penalties or damages which result from Contractor's failure to comply with applicable health and safety laws and regulations during performance of the Work.

B. Contractor shall designate in writing a responsible competent person of Contractor's organization at the Site as the Contractor's Safety Representative whose principal duties shall be the prevention of accidents and the maintenance and supervision of safety precautions and programs in accordance with the requirements of applicable laws and regulations. This person shall be available 24 hours a Day, 7 Days a week by telephone or other approved means.

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12.02 PERSONS AND PROPERTY

A. The Contractor shall protect the Work and materials from damage due to the nature of the Work, the action of the elements, the carelessness of other contractors, or any other cause whatever, until the completion and acceptance of the Work. **Should any damage occur to the Work or materials, the Contractor shall repair or replace it at its own expense to the satisfaction of the Engineer.** Prior to Final Acceptance, neither the City nor any of its agents assume any responsibility for collecting indemnity from any person or persons causing damage to the Work performed under this Contract.

B. **To the maximum extent provided under law, Contractor shall bear all responsibility for damage to persons and property arising from or in consequence of Contractor's performance of this Contract.**

C. Contractor shall obey and enforce all applicable safety orders, rules and recommendations of the Division of Industrial Safety of California.

E. **As much of the moneys due and retained by the City under this Contract as may be considered necessary by the Engineer may, at the Agency's option, remain unpaid until all suits or claims for damages as described above shall have been settled and resolved and satisfactory evidence of settlement and final resolution has been provided to the Agency.**

K. **In the event of damage or loss to property referred to in the previous subsections, whether caused by Contractor, its Subcontractors or Lower-Tier Subcontractors, Contractor shall promptly remedy such damage or loss, except such damage or loss attributable to the sole negligent acts or omissions of the City.** The foregoing obligations of Contractor are in addition to Contractor's obligations under Section 3.19 of these General Provisions. If an OCIP is in place for the project and the loss described herein is covered by the OCIP, then the Contractor's liability shall be limited to amount of its deductible under the OCIP.

M. **Contractor shall be responsible for each operation and all Work, both permanent and temporary.** Contractor shall protect its Work and materials and fully or partially completed work of the City or separate contractors from damage due to construction operations, the action of weather and other natural forces, the carelessness of its Subcontractors, vandalism, graffiti, or any other cause whatsoever, until Final Acceptance of the Work. **Should improper Work of any trade be covered by another contractor and damage or defects result, Contractor shall make the whole Work affected good to the satisfaction of the City and without expense to the City.**

1.04 CONTRACTOR'S KEY PERSONNEL ON SITE

A. **The Contractor shall provide a dedicated on-site staff at all times to lead, coordinate and support the Work for the entire duration of the Contract.** The management staff covered under this Section are considered Key Personnel. No one person may double up to serve two positions, in part or in whole, except during the grace period cited herein. Key Personnel includes:

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2 – Section 01 31 13.10 PROJECT COORDINATION—MANAGEMENT STAFF (Conformed)

1. One Project Manager dedicated to the Contract whose qualifications and responsibilities are described herein.
2. One full-time Superintendent dedicated to this Contract, whose qualifications and responsibilities are described herein.
3. One Assistant Superintendent dedicated to this Contract, whose
4. One full-time Contractor Quality Manager dedicated to this Contract whose qualifications and responsibilities are described in Section 01 45 00.
5. One Assistant Contractor Quality Manager dedicated to this Contract whose qualifications and responsibilities are described in Section 01 45 00.

B. The above list does not include other Contractor personnel required on the job, such as field engineers, quality control staff, safety staff, traffic control supervisors, foremen, and clerical support.

SCHEDULING OF WORK ADDENDUM NO. 5

PART 1—GENERAL

1.01 DESCRIPTION

A. The Work specified in this Section consists of developing and maintaining an accurate cost/schedule integration system in sufficient detail to show a logical sequence in which Contractor proposes to carry out all Work required under this Contract. It is the Contractor's responsibility to effectively plan, schedule, manage, and execute the Work in accordance with Contract Documents



Dislodged nipple from the main pipe.

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PG&E performing repairs on Sunday after the gas was turned off.



Repairs being made to the damaged gas line.

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PG&E completed repair to the damaged gas line prior to it being backfilled.