

**TRACY HILLS SPECIFIC PLAN
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT
VOLUME II
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APPENDIX E-4

**TRACY HILLS SPECIFIC PLAN PIPELINE SAFETY HAZARD
ASSESSMENTS PEER REVIEW, DATED NOVEMBER 2014**

Peer Review Memorandum

From: Erica V. Carter, P.E.

Date: November 3, 2014

Subject: Tracy Hills Specific Plan Pipeline Safety Hazard Assessments Peer Review

This technical memorandum summarizes the peer review of two pipeline safety hazard assessments submitted for the Tracy Hills Specific Plan Project. Located on the property encompassing the Tracy Hills Specific Plan are the following five pipelines:

- 16-inch Phillips 66 crude oil pipeline
- 20-inch Shell crude oil pipeline
- 26-inch and a 36-inch PG&E natural gas pipelines
- 18-inch Chevron crude oil pipeline

The 2013 report by Wilson Geosciences only analyzes the potential risk to the proposed school site based on the existing petroleum lines and aqueduct system passing nearby as it relates to the California Department of Education (CDE) requirements.

- This report analyzed risk associated with the Conoco 16-inch crude oil line, Shell 20-inch crude oil line (and the California aqueduct)
- Both pipelines have an active pipeline integrity program
- The pipeline material, pressure, size and wall thicknesses are provided; however, it is not mentioned if the lines have an active cathodic protection system in place to protect the carbon steel pipelines from corrosion. Based on the 2014 Placeworks report, these lines are cathodically protected.
- This report specifically discusses the proposed land use to include a school
- This report doesn't discuss the two natural gas lines (PG&E) or the Chevron 18" crude oil line with respect to the CDE requirements likely because it focused on the lines in the immediate vicinity of the proposed school site at the time.
- Ground movement from earthquakes that could impair the pipelines is considered to be low.

The 2014 report by Placeworks assesses the risk of proposed surrounding developments that are impacted by the existing petroleum lines as well as existing natural gas lines.

- This report is more comprehensive in its analysis and evaluates all of the lines (unlike the 2013 report).
- This report does evaluate all of the lines (unlike the report above).
- This report identifies the pipeline characteristics in more detail and indicates cathodic protection on the PG&E lines (26" and 36"). The integrity management and protocols follow 49 CFR 192 and CPUC's 112-E. It would be good to know if pipeline markers are present across the site and care should be taken in accordance to locating the

- line when any construction occurs, with consideration for marking the pipeline with above ground markers as development occurs within the Tracy Hills specific plan.
- The 18-inch Chevron crude oil line is in adherence with 49 CFR 195. It is equipped with cathodic protection. Although the reports state that burial depth is proprietary, this should be shared with the engineers and contractors as work occurs with the Tracy Hills specific plan. Likely with Chevron staff present, test pits could be performed on the line to determine its exact depth at critical locations such as utility crossings, roadway work, etc.
 - The 16-inch Phillips 66 crude oil line adheres to 49 CFR 195 and has cathodic protection.
 - These lines will be in fenced easements within the Plan area and not beneath public streets – potential for impacts to the lines should be minimal.
 - Ground movement from earthquakes that could impair the pipelines is considered to be low.
 - Setbacks from the pipelines to all buildings should be implemented – the report mentions 15-25 feet, but these are currently not required by any current zoning ordinances. Setbacks of 25 feet should be implemented.
 - A 13-18 foot setback from the centerline of the Phillips 66 pipeline to the nearest building or structure is recommended and was part of the Phase 1 development. This setback should be increased for residential parcels.
 - A no-build zone within the 100-foot conservation easement for the Shell crude oil pipeline is recommended. With the pipe located in the center of the 100-foot easement, this essentially creates a 50-foot setback from the centerline of the pipe.
 - The two natural gas pipelines and Chevron crude oil pipeline are located in a 50-foot easement, and a 25-foot setback from the centerline of any of these three pipelines is recommended.
 - The proposed site development plans incorporate features that reduce the risk associated with the most important integrity threat (damage to the pipeline caused by encroachment) as outlined in the recommended mitigation measures.
 - The calculated risk for each pipeline and the cumulative risk for all pipelines are both less than the significance threshold

Overall the 2014 report is an adequate general report on risk assessment of existing petroleum and natural gas pipelines. Identifying specific contingency plans for properties bisected by the pipelines that consist of physical protective devices in highly sensitive or critical areas to reduce the overall impact of rupture. As development occurs, the pipelines should be operated and maintained with the required Class design as designated in the Code of Federal Regulations. There are several suggestions for the Specific Plan (incorporated within these reports and as noted below) that could be easily implemented to develop the Specific Plan with the presence of all of these pipelines. There does not appear to be any significant issues with having development occur around these lines as long as recommendations are adhered to. With pipeline owners following their CFR and California regulations, their proactive integrity management plans are required to identify pipeline issues before they become serious such as a line break.

When an area adjacent to an existing Class 1 or Class 2 pipeline becomes a Class 3 or 4, the operating pressure of the pipe in the Class-change location must be revalidated for the new Class designation, typically by retesting the pipe to a higher margin above its operating stress or by replacing it with heavier-wall or stronger grade pipe. Retesting or replacement involves shutting down the pipeline, and interrupting continuous services. Because of the need to plan such events, the regulations allow 18 months to fulfill these requirements. The pipe does not need to be retested or replaced if the pipe has been previously tested to a sufficiently high margin, and the change in Class is only one Class increment. Alternatively, the operator may apply to PHMSA for a waiver from the requirement to retest or replace the pipe in accordance with an established protocol which has been implemented elsewhere in the US. Under this scenario, PHMSA may allow a line segment to operate more than "One Class out" contingent upon the pipe meeting certain criteria for overall quality of construction and condition of the pipe and the operator implementing certain risk-based pipeline integrity management processes designed to assure that overall risk levels are no greater than meeting conventional requirements via pipe replacement".

AB 1511-Real Property disclosures is applicable to the site:

Section 2079.10.5 (a) Every contract for the sale of residential real property entered into on or after July 1, 2013, shall contain, in not less than 8-pint type, a notice as specified below:

NOTICE REGARDING GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINES

This notice is being provided simply to inform you that information about the general location of gas and hazardous liquid transmission pipelines is available to the public via the National Pipeline Mapping System (NPMS) Internet Web site maintained by the United States Department of Transportation at <http://www.npms.phmsa.dot.gov/>. To see further information about possible transmission pipelines near the property, you may contact your local gas utility or other pipeline operators in the area. Contact information for pipeline operators is searchable by ZIP Code and county on the NPMS Internet Web site.

(b) Upon delivery of the notice to the transferee of the real property, the seller or broker is not required to provide information in addition to that contained in the notice regarding gas and hazardous liquid transmission pipelines in subdivision (a). The information in the notice shall be deemed to be adequate to inform the transferee about the existence of a statewide database of the locations of gas and hazardous liquid transmission pipelines and information from the database regarding those locations.

(c) Nothing in this section shall alter any existing duty under any other statute or decisional law imposed upon the seller or broker, including, but not limited to, the duties of a seller or broker under this article, or the duties of a seller or broker under Article 1.5 (commencing with Section 1102) of Chapter 2 of Title 4 of Part 4 of Division 2).