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Appendices A-D

APPENDIX A

PG&E’s Measures to Continue to Improve Gas Distribution Recordkeeping and Promote Safety

Type of Measure	Description of Measure ¹
Records Accuracy Improvements	PG&E implemented GD GIS as part of its Pathfinder Project in 2012. GD GIS was deployed across all divisions in August 2015. ²
	Data has been captured from GSRs and integrated into GD GIS, which has enabled PG&E to create an inventory of stubs in a centralized database. ³ This allows PG&E to more efficiently and effectively execute its stub monitoring and removal program, for which PG&E published an updated procedure. ⁴
	PG&E implemented the PAR process for automatically flagging anomalies in data being converted into GD GIS. ⁵
	PG&E created an Asset Registry module within SAP to serve as an inventory of data and maintenance plans for the gas distribution system. PG&E uses SAP to track the transfer of construction as-built records to PG&E’s mapping systems. ⁶
	PG&E implemented Documentum as its primary electronic records repository for unstructured data. Documentum improves records search capabilities and allows for the management of workflows and record lifecycles in a centralized system. ⁷
	PG&E validated gas distribution asset data by comparing distribution asset maps with meter locations included in its customer billing data. ⁸
	In 2014, PG&E began updating SAP with leak repair data captured in electronic A-Forms and validated its gas distribution asset data by comparing these records. ⁹
	PG&E is validating its GD GIS asset data by comparing it with Google Earth maps. ¹⁰
	In 2013, PG&E released an As-Built Drawing Handbook and As-Built Checklist designed to standardize the creation of as-built records, and conducted a series of related trainings. ¹¹
	PG&E is updating its Gas Mapper Manual to cover enhanced practices and procedures, such as GD GIS. It also created training programs for mappers, such as the Mapping Advancement Program and Pathfinder Bootcamp. ¹²
	PG&E instituted a “two person integrity” process that requires mapping jobs completed by a trained mapper to be verified by another trained mapper. ¹³
	In 2013, PG&E’s Mapping Department began publishing and tracking up-to-date performance metrics for as-built jobs. ¹⁴

Type of Measure	Description of Measure
Records Accessibility Improvements	PG&E is scanning and making paper gas service records and distribution as-built records accessible electronically. ¹⁵
	In 2012, PG&E enabled personnel to access L&M tickets and relevant maps, and to record completion of these tickets, on tablets. ¹⁶
	In 2013, PG&E provided crews with mobile access to electronic gas distribution system maps, which allows them to submit mapping correction requests from mobile devices. ¹⁷
	In 2014, PG&E implemented an electronic A-Form, which allows personnel to initiate A-Forms and document leak repair work electronically. ¹⁸
Records Management and Controls	PG&E's Gas Operations launched CAP in October 2013. CAP aids the generation, receipt, and processing of mapping corrections. ¹⁹ PG&E published a procedure outlining the steps for addressing a gas map correction submitted through CAP. ²⁰
	PG&E published policies and standards strengthening the operational protocols for identifying, maintaining, organizing, and retaining records. ²¹
	In 2014, PG&E's Gas Operations established its initial vital records inventory and trained its workforce in records and information management. ²²
	In 2012, PG&E established a Gas Operations Records and Information Management (Gas RIM) team, which has eight full-time employees dedicated to the implementation and oversight of gas records management. ²³
	PG&E's Gas Operations first achieved PAS 55 and ISO 55001 certification in best practice asset management in May 2014, and continues to maintain its certification. ²⁴
	PG&E implemented API Recommended Practice 1173, which provides a framework for pipeline operators to develop and maintain a pipeline safety management system. In November 2015, Lloyd's Register assessed PG&E as being in compliance with the requirements of API 1173. ²⁵
	In 2011, PG&E's Gas Operations established a Quality Management (QM) group to conduct quality assurance reviews of work activities and key processes, validate adherence to new procedures and processes, and identify gaps and areas for improvement. ²⁶ QM group reviews include, for example, reviews of L&M work accuracy and completion, use of the Gas Pipeline Carrier Checklist, and adherence to the GDCC clearance procedures. ²⁷
	PG&E's Internal Audit organization provides expertise on auditing new and existing business processes, and it conducts audits of PG&E's recordkeeping practices and processes to identify areas for improvement. ²⁸

Type of Measure	Description of Measure
Gas Distribution Operations	PG&E created grassroots safety teams in different lines of business, including Gas Operations. At their monthly meetings, team members share enterprise-wide safety ideas and concerns from across lines of business.
	Between 2011-2013, PG&E developed the Gas Distribution Control Center (GDCC), a state-of-the art facility that monitors the gas system.
	In 2013, GDCC began using the Supervisory Control and Data Acquisition (SCADA) system to monitor the flow and pressure of gas, and is in the process of installing expanded SCADA points along the gas distribution system. The GDCC also began using the Tactical Analysis Mapping Integration (TAMI) tool.
	In 2014, PG&E implemented the Gas Distribution Clearance Process, which allows centralized monitoring and oversight of work that will affect gas flow in distribution mains.
	In 2014, PG&E created Super Crew, a pilot team that uses improved processes and technology to move non-emergency leaks through a work stream in a shorter time frame. ²⁹
	In 2014, PG&E deployed the Picarro Surveyor, a leak detection device that is approximately 1,000 times more sensitive to natural gas detection than other commercially available leak detection instrument technology. ³⁰
	In 2014, PG&E implemented the Super Gas Ops program, which aligns everyone involved in a Gas Operations construction or maintenance project. This improves work prioritization and creates more visibility into the status of work at every stage. ³¹
Operational Safety Measures	In 2014, PG&E created the Gas Pipeline Carrier Checklist to assist field personnel with identifying potential plastic inserts before starting work. ³²
	PG&E developed the Bolt-On Saddle Punch Tee, a tool that can be used to work on an inserted line without penetrating the plastic pipe. ³³

Type of Measure	Description of Measure
Reducing Risk of Excavation Damage	PG&E published and continuously updates a Damage Prevention Handbook containing all applicable work steps for locating and marking PG&E’s gas and electric facilities. ³⁴
	PG&E created a direct line of progression for its L&M organization and reorganized the operational structure in 2014. PG&E also expanded its L&M training program. ³⁵
	In 2012, PG&E created a stand-alone Operator Qualification (OQ) organization within Gas Operations to ensure worker competence when performing tasks in the field, including L&M employees and contractors. ³⁶
	In 2014, PG&E began using mobile technology and GD GIS to identify situations where personnel need to stand by when third parties are excavating or performing other work adjacent to PG&E’s critical facilities. ³⁷
	Through multiple leadership messages beginning in June 2014, PG&E established an expectation that all employees and contractors stop a job if a recordkeeping inconsistency is discovered. ³⁸
	In 2014, PG&E rolled out targeted public awareness programs with the goal of reducing dig-ins by educating homeowners and contractors regarding safe excavation practices, including the Gold Shovel, Habitual Offender, and DiRT programs. ³⁹
	In March 2015, PG&E developed a Pre-Dig Verification Form for use by its general construction workforce to validate that the site is ready for excavation and that the assets the crew is working on match PG&E’s records. ⁴⁰

¹ See Ex. 5, Attachment W014 (PG&E’s Response to SED Data Request No. 114); *id.*, Attachment W018 (PG&E’s Response to SED Data Request No. 29); *see also* Ex. 4 at 2-5:7 to 2-22:26 (PG&E Reply Testimony, Singh); *id.* at 3-5:15 to 3-23:20 (PG&E Reply Testimony, Higgins); *id.* at 4-6:16 to 4-22:23 (PG&E Reply Testimony, Trevino); *id.* at 5-1:25 to 5-39:13 (PG&E Reply Testimony, Singh).

² Ex. 4 at 2-11:1-33 (PG&E Reply Testimony, Singh); *id.* at 4-7:14-25 (PG&E Reply Testimony, Trevino); *id.* at 5-37:17 to 5-38:3 (PG&E Reply Testimony, Singh). PWA evaluated this as an “innovative practice.” Ex. 1 at 59 tbl.9 (PWA Report).

³ Ex. 4 at 5-7:8-17 (PG&E Reply Testimony, Singh).

⁴ *Id.* at 5-5:21 to 5-7:20 (PG&E Reply Testimony, Singh); *id.* at 5-13:17 to 5-14:5 (PG&E Reply Testimony, Singh); Ex. 7, Attachment W091 (Utility Procedure TD-9500P-16, Deactivation and/or Retirement of Underground Gas Facilities).

⁵ Ex. 4 at 2-19:12-23 (PG&E Reply Testimony, Singh); *id.* at 4-20:16-26 (PG&E Reply Testimony, Trevino). PWA evaluated this as an “innovative practice.” Ex. 1 at 59 tbl.9 (PWA Report).

⁶ Ex. 4 at 2-14:8-29 (PG&E Reply Testimony, Singh); *id.* at 4-7:26-31, 4-11:29 to 4-12:3 (PG&E Reply Testimony, Trevino).

⁷ *Id.* at 2-14:32 to 2-15:23 (PG&E Reply Testimony, Singh).

⁸ *Id.* at 2-20:21 to 2-21:3 (PG&E Reply Testimony, Singh); *id.* at 4-20:16 to 4-21:27 (PG&E Reply Testimony, Trevino). PWA evaluated this as a “best practice.” Ex. 1 at 61 tbl.9 (PWA Report).

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- ⁹ Ex. 4 at 2-20:3-13 (PG&E Reply Testimony, Singh); *id.* at 4-15:16 to 4-16:17 (PG&E Reply Testimony, Trevino); *id.* at 5-11:17-24 (PG&E Reply Testimony, Singh). PWA evaluated this as an “innovative practice.” Ex. 1 at 61 tbl.9 (PWA Report).
- ¹⁰ Ex. 4 at 2-20:21 to 2-21:3 (PG&E Reply Testimony, Singh); *id.* at 4-20:16 to 4-21:27 (PG&E Reply Testimony, Trevino).
- ¹¹ *Id.* at 4-9:3-14 (PG&E Reply Testimony, Trevino); *id.* at 5-12:20 to 5-13:9 (PG&E Reply Testimony, Singh); Ex. 5, Attachment W017 (TD-4461P-20-F01, Checklist for Distribution Mains and Services As-Built Packages); Ex. 7, Attachment W080 (TD-4461M, Rev. 0, As-Built Drawing Handbook).
- ¹² Ex. 4 at 4-8:24 to 4-9:2, 4-10:13 to 4-11:27 (PG&E Reply Testimony, Trevino).
- ¹³ *Id.* at 4-8:2-13 (PG&E Reply Testimony, Trevino).
- ¹⁴ *Id.* at 4-16:23 to 4-17:4 (PG&E Reply Testimony, Trevino). PWA evaluated this as an “innovative practice.” Ex. 1 at 60 tbl.9 (PWA Report).
- ¹⁵ Plat maps were converted into GD GIS, paper GSRs have been scanned and are being entered into GD GIS, and historic as-builts have been scanned and will be made available electronically. Ex. 4 at 2-11:1-11 (PG&E Reply Testimony, Singh). PWA evaluated this as a “best practice.” Ex. 1 at 63 tbl.9 (PWA Report).
- ¹⁶ Ex. 4 at 3-12:11 to 3-13:12 (PG&E Reply Testimony, Higgins); *id.* at 2-22:11-26 (PG&E Reply Testimony, Singh). PWA evaluated this as a “best practice.” Ex. 1 at 62 tbl.9 (PWA Report).
- ¹⁷ Ex. 4 at 2-13:10 to 2-14:6, 2-15:24 to 2-16:17 (PG&E Reply Testimony, Singh); *id.* at 3-12:11 to 3-13:12 (PG&E Reply Testimony, Higgins). PWA evaluated this as a “best practice.” Ex. 1 at 62 tbl.9 (PWA Report).
- ¹⁸ Ex. 4 at 2-22:11-26 (PG&E Reply Testimony, Singh); *id.* at 3-6:27 to 3-7:21 (PG&E Reply Testimony, Higgins). PWA evaluated this as an “innovative practice.” Ex. 1 at 61-62 tbl.9 (PWA Report).
- ¹⁹ Ex. 4 at 4-5:22 to 4-6:15 (PG&E Reply Testimony, Trevino); *id.* at 5-22:22-28 (PG&E Reply Testimony, Singh). PWA evaluated this as an “innovative practice.” Ex. 1 at 63 tbl.9 (PWA Report).
- ²⁰ Ex. 4 at 5-25:14-26 (PG&E Reply Testimony, Singh); Ex. 6, Attachment W029 (Utility Procedure TD-4460P-11, Rev. 0, Gas Map Corrections).
- ²¹ *Id.* at 2-2:16-27, 2-5:17 to 2-6:2 (PG&E Reply Testimony, Singh); Ex. 5, Attachment W008 (Utility Policy TD-01, Rev. 1, Gas Asset Management); *id.*, Attachment W010 (Utility Standard TD-4016S, Rev. 1, Gas Operations Records and Information Management); *id.* at Attachment W011 (Utility Standard TD-4017S, Rev. 0, Gas Operations Vital Records Management).
- ²² Ex. 4 at 2-6:3 to 2-7:2 (PG&E Reply Testimony, Singh).
- ²³ *Id.* at 2-7:3-27 (PG&E Reply Testimony, Singh). A Gas RIM Coordinator Network of approximately 120 employees across 152 field offices support the Gas RIM Team. *Id.*
- ²⁴ *Id.* at 1-21:5 to 1-23:4 (PG&E Reply Testimony, Howe); *id.* at 2-8: 12-25 (PG&E Reply Testimony, Singh). PWA evaluated this as an “innovative practice.” Ex. 1 at 64 tbl.9 (PWA Report).
- ²⁵ 1/19/16 Tr. at 34:25 to 35:15 (SED/PWA); 1/20/16 Tr. at 183:26 to 184:13 (PG&E/Howe); Ex. 4 at 1-18:10 to 1-19:15 (PG&E Reply Testimony, Howe); Ex. 12 (Lloyd’s Register Pipeline Safety Management System Certificate of Compliance).
- ²⁶ Ex. 4 at 5-32:5-23 (PG&E Reply Testimony, Singh). PWA evaluated this as a “best practice.” Ex. 1 at 64-65 tbl.9 (PWA Report).
- ²⁷ Ex. 4 at 3-16:31 to 3-17:22 (PG&E Reply Testimony, Higgins); *id.* at 5-34:1-18 (PG&E Reply Testimony, Singh).
- ²⁸ *Id.* at 3-22:22 to 3-23:5 (PG&E Reply Testimony, Higgins); *id.* at 5-34:28 to 5-35:17 (PG&E Reply Testimony, Singh).
- ²⁹ *Id.* at 3-5:25 to 3-7:21 (PG&E Reply Testimony, Higgins).
- ³⁰ *Id.* at 3-5:30 to 3-6:26 (PG&E Reply Testimony, Higgins).

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- ³¹ *Id.* at 3-7:23 to 3-8:19 (PG&E Reply Testimony, Higgins).
- ³² Ex. 4 at 3-4:14 to 3-5:8 (PG&E Reply Testimony, Higgins); *id.* at 3-28:14 to 3-29:13 (PG&E Reply Testimony, Higgins) *id.* at 5-8:21 to 5-9:22 (PG&E Reply Testimony, Singh); Ex. 5, Attachment W015 (Notification of Abnormal or Emergency Operating Conditions, Rev. 1, Gas Operations JSSA & Tailboard Briefing). PWA identified this as an “effective backstop” measure. Ex. 1 at 65 tbl.9 (PWA Report).
- ³³ Ex. 4 at 5-10:12 to 5-11:15 (PG&E Reply Testimony, Singh). PWA identified this as a “very useful backstop” measure. Ex. 1 at 68:9-13 (PWA Report).
- ³⁴ *Id.* at 3-12:11 to 3-13:12 (PG&E Reply Testimony, Higgins). Ex. 5, Attachment W022 (TD-5811M, Rev. 1, Damage Prevention Handbook). PWA evaluated this as an “innovative practice.” Ex. 1 at 65 tbl.9 (PWA Report).
- ³⁵ Ex. 4 at 3-11:2 to 3-12:9; 3-15:22 to 3-16:30 (PG&E Reply Testimony, Higgins).
- ³⁶ *Id.* at 3-16:12-30 (PG&E Reply Testimony, Higgins).
- ³⁷ Ex. 4 at 3-12:11 to 3-13:12 (PG&E Reply Testimony, Higgins). PWA evaluated this as a “best practice.” Ex. 1 at 63 tbl.9 (PWA Report).
- ³⁸ Ex. 4 at 3-3:5 to 3-5:8 (PG&E Reply Testimony, Higgins). PWA evaluated this as an “innovative practice.” Ex. 1 at 66-67 tbl.9 (PWA Report).
- ³⁹ Ex. 4 at 3-20:5 to 3-21:27 (PG&E Reply Testimony, Higgins). PWA evaluated the Gold Shovel and Habitual Offender programs as “best practice.” Ex. 1 at 66 tbl.9 (PWA Report); Ex. 6, Attachment W036 (Utility Procedure TD-5805P-02, Rev. 0, Gold Shovel Standard Damage Prevention Program Administration); *id.*, Attachment W037 (Utility Procedure TD-5805P-01, Rev. 0, Habitual Offender Damage Prevention Program Administration).
- ⁴⁰ Ex. 4 at 3-21:28 to 3-22:19 (PG&E Reply Testimony, Higgins). Ex. 6, Attachment W038 (Pre-Dig Verification Form, Rev. 4); Ex. 10, Attachment W039 (PG&E Errata to Pre-Dig Verification Form, Rev. 5).

APPENDIX B

Incidents and Alleged Violations

<u>Incidents Not Related to Recordkeeping & Outside of Scope</u>	<u>Page</u>
Aughinbaugh Way, Alameda.....	B-2
Grimes/Arbuckle Road and First Street, Colusa.....	B-3
Lonetree Way and James Donlon Boulevard, Antioch.....	B-4
Montague Expressway and Great Mall Parkway, Milpitas	B-5
Palou Avenue, San Francisco	B-6
S. Market Street, San Jose.....	B-7

<u>Incidents Potentially Related to Recordkeeping</u>	<u>Page</u>
Charleston Road, Mountain View.....	B-8
Danville Road, Alamo	B-9
F Street, Sacramento	B-10
Goodhill Road and Diablo Drive, Kentfield.....	B-11
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Guadalupe Street and 3rd Avenue, Carmel.....	B-13
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Tully Road, San Jose.....	B-19
West Ashlan Avenue, Fresno.....	B-20

AUGHINBAUGH WAY, ALAMEDA (SEPT. 28, 2010)

Alleged Violations	SED Allegations⁴¹	PG&E Position on Alleged Violations
<p>Recordkeeping:⁴²</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow WP 4412-03, in violation of section 192.605(a).⁴³ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • SED initially described this incident as a third party dig-in resulting from an inaccurate PG&E map.⁴⁴ • PG&E clarified that the plat map was, in fact, correct, but the “locator misunderstood the position of the property line from which he calculated his marks.”⁴⁵ • Even if this were deemed a recordkeeping incident, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because WP 4412-03 is not a recordkeeping procedure.⁴⁶
<p>Non-Recordkeeping:⁴⁷</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of section 192.614(c)(5).⁴⁸ • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of Government Code section 4216.3(a)(1).⁴⁹ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

GRIMES/ARBUCKLE ROAD AND FIRST STREET, COLUSA (MAR. 19, 2009)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E did not follow an unspecified locate and mark procedure, in violation of section 192.605(a).⁵⁰ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).⁵⁵ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • The crew foreman did not recognize a symbol on the map as indicating the potential presence of an offset.⁵¹ As a result, a PG&E gas crew dug into a main that had not been marked. • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁵² • This incident occurred on a transmission line, not a distribution line.⁵³ • SED investigated this incident in 2010 and did not issue any Notice of Violation or a fine.⁵⁴ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.⁵⁶ • Section 192.605(b)(3) does not speak to records accuracy.⁵⁷ • Regardless, there is no evidence that the plat map was inaccurate.
<p>Non-Recordkeeping:⁵⁸</p> <ul style="list-style-type: none"> • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to mark a main, in violation of Government Code section 4216.3(a)(1).⁵⁹ 	<ul style="list-style-type: none"> • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

LONETREE WAY AND JAMES DONLON BOULEVARD, ANTIOCH (MAR. 15, 2010)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow WP 4412-03, in violation of section 192.605(a).⁶⁰ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • This incident occurred following a locator’s use of electrical means to mark out a pipeline.⁶¹ The signal emanating from the pipeline turned out to be incorrect, causing the locator to mismark the pipeline.⁶² • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because WP 4412-03 is not a recordkeeping procedure.⁶³
<p>Non-Recordkeeping:⁶⁴</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of section 192.614(c)(5).⁶⁵ • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of Government Code section 4216.3(a)(1).⁶⁶ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

MONTAGUE EXPRESSWAY AND GREAT MALL PARKWAY, MILPITAS (OCT. 10, 2012)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Standards A-93.1 and D-S0454, which require that personnel be assigned to monitor pressure during field work, in violation of section 192.605(a).⁶⁷ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).⁷¹ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • This incident involved construction work in which a valve position properly labeled “open” on the plat map was left closed.⁶⁸ The only evidence in the record is that the plat map showed the correct valve position, and that the valve most likely was left closed rather than being left open due to operator error.⁶⁹ • Even if this were deemed a recordkeeping incident, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because Standards A-93.1 and D-S0454 are not recordkeeping procedures.⁷⁰ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.⁷² • Section 192.605(b)(3) does not speak to records accuracy.⁷³ • Regardless, the map most likely showed the correct valve position.⁷⁴
<p>Non-Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

PALOU AVENUE, SAN FRANCISCO (APR. 8, 2014)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • SED alleges no recordkeeping failure.⁷⁵ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • This incident involved a PG&E excavation crew digging into a service line.⁷⁶ SED does not allege that the incident was the result of an inaccurate or missing record.⁷⁷
<p>Non-Recordkeeping:⁷⁸</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov't Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to use available mapping information to mark an active gas main and service line, in violation of section 192.614(c)(5).⁷⁹ • SED alleges that PG&E failed to use available mapping information to mark an active gas main and service line, in violation of Government Code section 4216.3(a)(1).⁸⁰ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

S. MARKET STREET, SAN JOSE (NOV. 7, 2014)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow the rule for making direct contact in PG&E’s Damage Prevention Handbook TD-5811M, in violation of section 192.605(a).⁸¹ 	<ul style="list-style-type: none"> • This is not a recordkeeping incident. • PG&E and the excavator failed to mutually agree on or reschedule a locate and mark.⁸² On the date of the incident, the excavator began digging before PG&E was able to apply field marks to the excavation site.⁸³ • There is no allegation that PG&E’s maps were incorrect or that records contributed in any way to this incident.⁸⁴ • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because the rule for making direct contact in PG&E’s Damage Prevention Handbook TD-5811 is not a recordkeeping procedure.⁸⁵
<p>Non-Recordkeeping:⁸⁶</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(6) • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to dispatch a representative to the excavation site, in violation of section 192.614(c)(6).⁸⁷ • SED alleges that PG&E failed to dispatch a representative to the excavation site, in violation of Government Code section 4216.3(a)(1).⁸⁸ 	<ul style="list-style-type: none"> • Section 192.614(c)(6), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

CHARLESTON ROAD, MOUNTAIN VIEW (JULY 30, 2013)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E did not follow an unspecified procedure to keep its maps and records updated and accurate, in violation of section 192.605(a).⁸⁹ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).⁹¹ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁹⁰ • <i>See supra</i> pp. 56-57 (discussing Mountain View incident).
<p>Non-Recordkeeping:⁹²</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.617 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to conduct sufficient causal evaluation analysis following the Mountain View incident.⁹³ 	<ul style="list-style-type: none"> • Section 192.617, requiring the operator to establish procedures for analyzing accidents and failures, is unrelated to recordkeeping. Moreover, PG&E's procedures comply with the regulation.

DANVILLE ROAD, ALAMO (JULY 24, 2013)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • SED alleges no recordkeeping failure.⁹⁴ 	<ul style="list-style-type: none"> • N/A
<p>Non-Recordkeeping:⁹⁵</p> <ul style="list-style-type: none"> • Cal. Gov't Code § 4216.3(a)(1) • Cal. Pub. Util. Code § 451 	<ul style="list-style-type: none"> • SED alleges that PG&E personnel left the work site without locating its gas lines, in violation of Government Code section 4216.3(a)(1).⁹⁶ • SED alleges that PG&E personnel left the work site without locating its gas lines, in violation of Public Utilities Code section 451.⁹⁸ 	<ul style="list-style-type: none"> • As described in Appendix D, the pipe could not be located precisely due to flooded conditions.⁹⁷ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping. • As described in Appendix D, the pipe could not be located precisely due to flooded conditions.⁹⁹ • Section 451 does not incorporate any specific recordkeeping requirements or standards.

F STREET, SACRAMENTO (OCT. 31, 2011)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.13(c) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E did not follow an unspecified procedure to keep its maps and records updated and accurate, in violation of section 192.13(c).¹⁰⁰ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹⁰² 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to maintain, modify, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.13(c), because SED does not cite any recordkeeping procedure.¹⁰¹ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁰³ • Section 192.605(b)(3) does not speak to records accuracy.¹⁰⁴
<p>Non-Recordkeeping:¹⁰⁵</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of section 192.614(c)(5).¹⁰⁶ • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of Government Code section 4216.3(a)(1).¹⁰⁷ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

GOODHILL ROAD AND DIABLO DRIVE, KENTFIELD (APR. 1, 2011)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.13(c) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its procedures to update its maps, in violation of section 192.13(c).¹⁰⁸ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹¹⁰ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to maintain, modify, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.13(c), because SED does not cite any recordkeeping procedure.¹⁰⁹ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹¹¹ • Section 192.605(b)(3) does not speak to records accuracy.¹¹²
<p>Non-Recordkeeping:¹¹³</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.321(e) • 49 C.F.R. § 192.614(c)(5) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to install tracer wire on a replacement plastic main, in violation of section 192.321(e).¹¹⁴ • SED alleges that PG&E failed to mark a plastic main in the area of excavation, in violation of section 192.614(c)(5).¹¹⁵ 	<ul style="list-style-type: none"> • Section 192.321(e), addressing the installation of tracer wire when installing plastic pipe, does not relate to recordkeeping. • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping.

GREAT MALL PARKWAY, MILPITAS (MAR. 4, 2013)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹¹⁶ 	<ul style="list-style-type: none"> • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹¹⁷ • Section 192.605(b)(3) does not speak to records accuracy.¹¹⁸
<p>Non-Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

GUADALUPE STREET AND 3RD AVENUE, CARMEL (MAR. 3, 2014)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to keep its maps and records updated and accurate, in violation of section 192.605(a).¹¹⁹ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹²¹ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.¹²⁰ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹²² • Section 192.605(b)(3) does not speak to records accuracy.¹²³
<p>Non-Recordkeeping:¹²⁴</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.617 • Cal. Pub. Util. Code § 451 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its procedures to determine the cause of the Mountain View incident and minimize the possibility of reoccurrence, in violation of section 192.617.¹²⁵ • SED alleges that PG&E failed to adequately equip their personnel with the tools necessary to stop the flow of gas, in violation of Public Utilities Code section 451.¹²⁶ 	<ul style="list-style-type: none"> • Section 192.617, requiring the operator to establish procedures for analyzing accidents and failures, is unrelated to recordkeeping. Moreover, PG&E’s procedures comply with the regulation. • Section 451 does not incorporate any specific recordkeeping requirements or standards.

HARDING BOULEVARD, ROSEVILLE (OCT. 21, 2010)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.13(c) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow WP 4412-03, in violation of section 192.13(c).¹²⁷ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹²⁹ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to maintain, modify, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.13(c), because WP4412-03 is not a recordkeeping procedure.¹²⁸ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹³⁰ • Section 192.605(b)(3) does not speak to records accuracy.¹³¹
<p>Non-Recordkeeping:¹³²</p> <ul style="list-style-type: none"> • Cal. Gov’t Code § 4216.3(a)(1) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to accurately mark its gas facilities, in violation of Government Code section 4216.3(a)(1).¹³³ 	<ul style="list-style-type: none"> • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

MAIN STREET, MORGAN HILL (JUNE 21, 2012)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its procedure TD-9500P-16, Deactivation and/or Retirement of Underground Gas Facilities, in violation of section 192.605(a).¹³⁴ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹³⁶ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because TD-9500P-16 is not a recordkeeping procedure.¹³⁵ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹³⁷ • Section 192.605(b)(3) does not speak to records accuracy.¹³⁸
<p>Non-Recordkeeping:¹³⁹</p> <ul style="list-style-type: none"> • Cal. Gov’t Code § 4216.3(a)(1) • Cal. Pub. Util. Code § 961(d)(10) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to mark a service stub, in violation of Government Code section 4216.3(a)(1).¹⁴⁰ • SED alleges that PG&E may have committed a nonspecific workplace-related infraction, in possible violation of Public Utilities Code section 961(d)(10).¹⁴¹ 	<ul style="list-style-type: none"> • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping. • Section 961(d)(10), addressing workforce size, qualification, and training, does not relate to recordkeeping.

PLEASANT HILL ROAD, LAFAYETTE (AUG. 27, 2013)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow GTS Standard S4129, which is a procedure related to cutting off services at the main, in violation of section 192.605(a).¹⁴² 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare, maintain, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because GTS Standard S4129 is not a recordkeeping procedure.¹⁴³
<p>Non-Recordkeeping:¹⁴⁴</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov't Code § 4216.3(a)(1) • 49 C.F.R. § 192.727(b) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to provide temporary marking for its subsurface facilities in the area of excavation, in violation of section 192.614(c)(5).¹⁴⁵ • SED alleges that PG&E failed to provide temporary marking for its subsurface facilities in the area of excavation, in violation of Government Code section 4216.3(a)(1).¹⁴⁶ • SED alleges that PG&E failed to properly abandon or deactivate its gas facilities, in violation of section 192.727(b).¹⁴⁷ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping. • Section 192.727(b), addressing deactivation of abandoned mains, does not relate to recordkeeping.

SAN MIGUEL AVENUE, CASTRO VALLEY (SEPT. 17, 2010)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.13(c) • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E did not follow its Standard UO S4460 to keep its maps updated and accurate, in violation of section 192.13(c).¹⁴⁸ • SED alleges that PG&E did not follow its Standard UO S4460 to keep its maps updated and accurate, in violation of section 192.605(a).¹⁵¹ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹⁵⁴ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to maintain, modify, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.13(c).¹⁴⁹ • SED has cited the wrong standard, as UO S4460 applies to transmission lines.¹⁵⁰ • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a).¹⁵² • SED has cited the wrong standard, as UO S4460 applies to transmission lines.¹⁵³ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁵⁵ • Section 192.605(b)(3) does not speak to records accuracy.¹⁵⁶
<p>Non-Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

SAN RAMON VALLEY BOULEVARD, SAN RAMON (AUG. 12, 2009)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.13(c) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E did not follow an unspecified procedure to keep its maps and records updated and accurate, in violation of section 192.13(c).¹⁵⁷ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹⁵⁹ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to maintain, modify, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.13(c), because SED does not cite any recordkeeping procedure.¹⁵⁸ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁶⁰ • Section 192.605(b)(3) does not speak to records accuracy.¹⁶¹
<p>Non-Recordkeeping:¹⁶²</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov’t Code § 4216.3(a)(1) • 49 C.F.R. § 192.723(b)(2) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of section 192.614(c)(5).¹⁶³ • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of Government Code section 4216.3(a)(1).¹⁶⁴ • SED alleges that PG&E failed to perform leak surveys of the service line since its installation which occurred prior to October 14, 1997, in violation of section 192.723(b)(2).¹⁶⁵ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping. • Section 192.723(b)(2), addressing the frequency with which leak surveys must be conducted, does not relate to recordkeeping.

TULLY ROAD, SAN JOSE (JAN. 20, 2015)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Mapping Standard 410.2-1, in violation of section 192.605(a).¹⁶⁶ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹⁶⁸ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure, including Mapping Standard 410.2-1, when the record was created, as required by section 192.605(a).¹⁶⁷ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁶⁹ • Section 192.605(b)(3) does not speak to records accuracy.¹⁷⁰
<p>Non-Recordkeeping:¹⁷¹</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.614(c)(5) • Cal. Gov’t Code § 4216.3 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to locate and mark its subsurface facilities within the delineated excavation area, in violation of section 192.614(c)(5).¹⁷² • SED alleges that PG&E failed to provide locate and mark personnel with accurate records, in violation of Government Code section 4216.3.¹⁷³ 	<ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for damage prevention programs, does not relate to recordkeeping. • Section 4216.3, addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.

WEST ASHLAN AVENUE, FRESNO (SEPT. 24, 2014)

Alleged Violations	SED Allegations	PG&E Position on Alleged Violations
<p>Recordkeeping:</p> <ul style="list-style-type: none"> • 49 C.F.R. § 192.605(a) • 49 C.F.R. § 192.605(b)(3) 	<ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Mapping Standard 410.21-1, in violation of section 192.605(a).¹⁷⁴ • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of section 192.605(b)(3).¹⁷⁶ 	<ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure, including Mapping Standard 410.21-1, when the record was created, as required by section 192.605(a).¹⁷⁵ • SED has not shown that PG&E’s O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁷⁷ • Section 192.605(b)(3) does not speak to records accuracy.¹⁷⁸
<p>Non-Recordkeeping:</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

⁴¹ SED originally alleged that PG&E failed to dispatch a representative to the excavation site, in violation of section 192.614(c)(6), and that PG&E failed to provide its employees with accurate maps, in violation of section 192.605(b)(3). Ex. 1 at 44 tbl.4 (PWA Report). But, in the PWA Rebuttal, SED stated that “[i]f PG&E’s reply testimony is correct, then it would not be in violation for failure to dispatch a representative to the excavation site, and would not be in violation for failure to provide accurate maps.” Ex. 2 at 24 tbl.1 (PWA Rebuttal). Accordingly, such violations are not addressed in this table.

⁴² PG&E does not agree that the regulations addressed in the “Recordkeeping” categories contain any requirements as to the form, content, or accuracy of gas distribution records.

⁴³ Ex. 2 at 24 tbl.1 (PWA Rebuttal).

⁴⁴ Ex. 1 at 20 tbl.2 (PWA Report).

⁴⁵ Ex. 4 at 3-32:25 to 3-33:5 (PG&E Reply Testimony, Higgins).

⁴⁶ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 2 at 24 tbl.1 (PWA Rebuttal) (alleging that “the L&M crew did not follow proper procedures for determining location of pipelines as per Work Procedure 4412-03 page 4”); Ex. 21 at W061.001 (Utility Work Procedure WP4412-03) (providing “step-by-step instructions for processing Underground Service Alert (USA) tickets and for marking and locating Pacific Gas and Electric Company (Company) underground gas, electric, and fiberoptic cable facilities”).

⁴⁷ See Appendix C.

⁴⁸ Ex. 1 at 44 tbl.4 (PWA Report); Ex. 2 at 24 tbl.1 (PWA Rebuttal).

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- ⁴⁹ Ex. 1 at 44 tbl.4 (PWA Report); Ex. 2 at 24 tbl.1 (PWA Rebuttal).
- ⁵⁰ Ex. 1 at 44 tbl.4 (PWA Report).
- ⁵¹ Ex. 4 at 3-34:4-7 (PG&E Reply Testimony, Higgins).
- ⁵² *See supra* pp. 50-51 (discussing requirements of section 192.605(a)).
- ⁵³ Ex. 10 at 3-34:2-4 (PG&E Errata to Reply Testimony, Higgins).
- ⁵⁴ *Id.*
- ⁵⁵ Ex. 2 at 22 tbl.1 (PWA Rebuttal).
- ⁵⁶ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ⁵⁷ *See supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ⁵⁸ *See Appendix C.*
- ⁵⁹ Ex. 1 at 44 tbl.4 (PWA Report).
- ⁶⁰ Ex. 2 at 20-21 tbl.1 (PWA Rebuttal).
- ⁶¹ Ex. 4 at 3-33:12-27 (PG&E Reply Testimony, Higgins).
- ⁶² Ex. 1 at 19 tbl.2 (PWA Report).
- ⁶³ *See supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 2 at 20-21 tbl.1 (PWA Rebuttal) (alleging that PG&E’s locate and mark personnel “did not contact mapping when the field locate and map did not make sense,” in violation of WP 4412-03); Ex. 21 at PGE_GDR_000008384 (Utility Work Procedure WP4412-03) (providing “step-by-step instructions for processing Underground Service Alert (USA) tickets and for marking and locating Pacific Gas and Electric Company (Company) underground gas, electric, and fiberoptic cable facilities.”).
- ⁶⁴ *See Appendix C.*
- ⁶⁵ Ex. 1 at 44 tbl.4 (PWA Report).
- ⁶⁶ *Id.*
- ⁶⁷ *Id.* at 38:24-26 (PWA Report).
- ⁶⁸ Ex. 4 at 3-25:3-17 (PG&E Reply Testimony, Higgins); *see also* 1/20/16 Tr. at 286:11-15 (PG&E/Higgins) (“The physical record is actually correct. It is the position of the valve, in fact, in the field that wasn’t correct.”).
- ⁶⁹ Ex. 4 at 3-26:3-16 (PG&E Reply Testimony, Higgins).
- ⁷⁰ *See supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 6, Attachment W043 (DCS Standard D-S0454, Gas Mains, Maintaining Continuity of Service During Construction) (describing procedure “to prevent accidental interruption in customer service in the course of construction, reconstruction or maintenance operations”); *id.*, Attachment W044 (A-93.1 Rev. 8, Plastic Gas Distribution System Construction and Maintenance) (providing “construction and maintenance information for a PE pipe and tubing gas distribution system”). In addition, neither Standards A-93.1 nor D-S0454 specified how long to monitor the gauge pressure before stopping the flow of gas or how often to monitor the gauge pressure after the pipe has been severed throughout the duration of the job. Therefore, PG&E did not necessarily violate any procedures by not assigning personnel to monitor the pressure constantly during the work activity. Ex. 4 at 3-25:3-17 (PG&E Reply Testimony, Higgins).
- ⁷¹ Ex. 1 at 38:16-17 (PWA Report).
- ⁷² Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ⁷³ *See supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ⁷⁴ Ex. 4 at 3-26:10-16 (PG&E Reply Testimony, Higgins).

⁷⁵ Ex. 1 at 46 tbl.4 (PWA Report).
⁷⁶ *Id.* at 23 tbl.2 (PWA Report).
⁷⁷ *Id.*
⁷⁸ *See* Appendix C.
⁷⁹ Ex. 1 at 46 tbl.4 (PWA Report).
⁸⁰ *Id.*
⁸¹ *Id.* at 43 tbl.4 (PWA Report).
⁸² Ex. 4 at 3-30:13-16 (PG&E Reply Testimony, Higgins).
⁸³ *Id.* at 3-31:14-17 (PG&E Reply Testimony, Higgins).
⁸⁴ Ex. 1 at 17 tbl.2, 43 tbl.4 (PWA Report).
⁸⁵ *See supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 25 (TD-5811-P-102) (describing “step-by-step instructions for evaluating the scope of a USA ticket request and determining the required response.”).
⁸⁶ *See* Appendix C.
⁸⁷ Ex. 1 at 43 tbl.4 (PWA Report).
⁸⁸ *Id.*
⁸⁹ *Id.* at 39:32-34 (PWA Report).
⁹⁰ *See supra* pp. 50-51 (discussing requirements of section 192.605(a)).
⁹¹ Ex. 1 at 39:24-26 (PWA Report).
⁹² *See* Appendix C.
⁹³ Ex. 1 at 39:32-34 (PWA Report).
⁹⁴ Ex. 2 at 25 tbl.1 (PWA Rebuttal).
⁹⁵ *See* Appendix C.
⁹⁶ Ex. 2 at 25 tbl.1 (PWA Rebuttal).
⁹⁷ *See* Appendix D.
⁹⁸ Ex. 2 at 25 tbl.1 (PWA Rebuttal).
⁹⁹ *See* Appendix D.
¹⁰⁰ Ex. 1 at 46 tbl.4 (PWA Report).
¹⁰¹ *See supra* p. 52 (discussing requirements of section 192.13(c)).
¹⁰² Ex. 1 at 46 tbl.4 (PWA Report).
¹⁰³ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
¹⁰⁴ *See supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
¹⁰⁵ *See* Appendix C.
¹⁰⁶ Ex. 46 tbl.4 (PWA Report).
¹⁰⁷ *Id.*
¹⁰⁸ Ex. 1 at 43 tbl.4 (PWA Report).
¹⁰⁹ *See supra* p. 52 (discussing requirements of section 192.13(c)).
¹¹⁰ Ex. 1 at 43 tbl.4 (PWA Report).
¹¹¹ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).

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- ¹¹² See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹¹³ See Appendix C.
- ¹¹⁴ Ex. 1 at 43 tbl.4 (PWA Report).
- ¹¹⁵ *Id.*
- ¹¹⁶ *Id.* at 39:13-15 (PWA Report).
- ¹¹⁷ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹¹⁸ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹¹⁹ Ex. 1 at 40:15-16 (PWA Report).
- ¹²⁰ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)).
- ¹²¹ Ex. 1 at 40:18-20 (PWA Report).
- ¹²² Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹²³ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹²⁴ See Appendix C.
- ¹²⁵ Ex. 1 at 40:14-18 (PWA Report).
- ¹²⁶ OII at 7.
- ¹²⁷ Ex. 1 at 45 tbl.4.
- ¹²⁸ See *supra* p. 52 (discussing requirements of section 192.13(c)); Ex. 1 at 45 tbl.4 (alleging that PG&E’s locate and mark personnel “did not contact mapping when the field locate and map did not make sense,” in violation of WP 4412-03); Ex. 21 at W061.001 (Utility Work Procedure WP4412-03) (providing “step-by-step instructions for processing Underground Service Alert (USA) tickets and for marking and locating [PG&E] underground gas, electric, and fiberoptic cable facilities”).
- ¹²⁹ Ex. 1 at 45 tbl.4 (PWA Report).
- ¹³⁰ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹³¹ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹³² See Appendix C.
- ¹³³ Ex. 1 at 45 tbl.4 (PWA Report).
- ¹³⁴ *Id.* at 37:38-39, 38:6-8 (PWA Report).
- ¹³⁵ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 7, Attachment W091 (Utility Procedure TD-9500P-16, Rev. 1, Deactivation and/or Retirement of Underground Gas Facilities) (describing the process for deactivating subsurface facilities).
- ¹³⁶ Ex. 1 at 38:6-8 (PWA Report).
- ¹³⁷ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹³⁸ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹³⁹ See Appendix C.
- ¹⁴⁰ Ex. 1 at 37:39 to 38:1 (PWA Report).
- ¹⁴¹ *Id.* at 38:3-5 (PWA Report).
- ¹⁴² *Id.* at 42 tbl.4 (PWA Report).

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- ¹⁴³ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)); Ex. 1 at 42 tbl.4 (PWA Report) (“GTS Standard S4129 . . . requires cutting off services as close to the main as possible.”).
- ¹⁴⁴ See Appendix C.
- ¹⁴⁵ Ex. 1 at 42 tbl.4 (PWA Report).
- ¹⁴⁶ *Id.*
- ¹⁴⁷ *Id.*
- ¹⁴⁸ *Id.* at 37:31-32 (PWA Report).
- ¹⁴⁹ See *supra* p. 52 (discussing requirements of section 192.13(c)).
- ¹⁵⁰ 1/19/16 Tr. at 158:27 to 159:20 (SED/PWA).
- ¹⁵¹ Ex. 1 at 37:31-32 (PWA Report).
- ¹⁵² See *supra* pp. 50-51 (discussing requirements of section 192.605(a)).
- ¹⁵³ 1/19/16 Tr. at 158:27 to 159:20 (SED/PWA).
- ¹⁵⁴ Ex. 1 at 37:32-34 (PWA Report).
- ¹⁵⁵ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹⁵⁶ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹⁵⁷ Ex. 1 at 47 tbl.4 (PWA Report).
- ¹⁵⁸ See *supra* p. 52 (discussing requirements of section 192.13(c)).
- ¹⁵⁹ Ex. 1 at 47 tbl.4 (PWA Report).
- ¹⁶⁰ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹⁶¹ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹⁶² See Appendix C.
- ¹⁶³ Ex. 1 at 47 tbl.4 (PWA Report).
- ¹⁶⁴ *Id.*
- ¹⁶⁵ *Id.*
- ¹⁶⁶ *Id.* at 42 tbl.4 (PWA Report).
- ¹⁶⁷ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)).
- ¹⁶⁸ Ex. 1 at 42 tbl.4 (PWA Report).
- ¹⁶⁹ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹⁷⁰ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).
- ¹⁷¹ See Appendix C.
- ¹⁷² Ex. 1 at 42 tbl.4 (PWA Report).
- ¹⁷³ *Id.*
- ¹⁷⁴ *Id.* at 46 tbl.4 (PWA Report).
- ¹⁷⁵ See *supra* pp. 50-51 (discussing requirements of section 192.605(a)).
- ¹⁷⁶ Ex. 2 at 25 tbl.1 (PWA Report).
- ¹⁷⁷ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹⁷⁸ See *supra* pp. 52-54 (discussing requirements of section 192.605(b)(3)).

APPENDIX C

Non-Recordkeeping Regulations and Other Laws

Alleged Violations of Operations and Maintenance Regulations

Subpart L of Part 192 of the pipeline safety regulations focuses on operational requirements and procedures.¹⁷⁹ Subpart M of Part 192 addresses maintenance activities, and “prescribes minimum requirements for maintenance of pipeline facilities.”¹⁸⁰ The following alleged violations of regulations found within Subparts L and M are outside the scope of this proceeding and should not be considered by the Commission.

1. 49 C.F.R. § 192.613, Continuing Surveillance

SED alleges that PG&E violated 49 C.F.R. § 192.613 due to a “[f]ailure to carry out data gathering, to evaluate the causes and implications of incidents, and to incorporate the lessons from these investigations into utility policies, procedures and programs.”¹⁸¹ The intent of section 192.613 “is to require the operator to continually assess its pipeline system to detect conditions or issues that can impact pipeline integrity.”¹⁸² The surveillance regulation is not a recordkeeping requirement.

2. 49 C.F.R. § 192.614, Damage Prevention Program

SED has alleged numerous violations of the regulations related to damage prevention programs found in 49 C.F.R. § 192.614.¹⁸³ In particular, section 192.614(a) requires operators to “carry out . . . a written program to prevent damage to [pipelines] from excavation activities.”¹⁸⁴ The requirement to create such a program is not a recordkeeping requirement, despite the fact that certain records will be used to carry out the program. While section 192.614(a) requires a written program, SED alleges specific violations of sections 192.614(c)(5) and (c)(6), which state:

(c) The damage prevention program required by paragraph (a) of this Section must, at a minimum:

(5) Provide for temporary marking of buried pipelines in the area of excavation activity before, as far as practical, the activity begins.

(6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities:

(i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline; and

(ii) In the case of blasting, any inspection must include leakage surveys.

These are operational requirements, not recordkeeping requirements, and are outside the scope of the OII.

There is no suggestion that PG&E's Damage Prevention Handbook lacks the procedures required by sections 192.614(c)(5) and (c)(6).¹⁸⁵ During discovery, SED specifically requested and received a copy of the Handbook.¹⁸⁶ PWA found that the Handbook was an "innovative practice."¹⁸⁷ Nor is there any evidence that PG&E's past damage prevention practices were deficient.¹⁸⁸

3. 49 C.F.R. § 192.617, Investigation of Failures

Section 192.617 states:

Each operator shall establish procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence.¹⁸⁹

SED's allegation that PG&E failed to conduct sufficient causal evaluation analyses following the Mountain View and Carmel incidents is unrelated to recordkeeping, as is apparent from the language of section 192.617.¹⁹⁰ Moreover, PG&E's causal evaluation procedures comply with the regulation.¹⁹¹

4. 49 C.F.R. § 192.723, Distribution Systems: Leakage Surveys

Section 192.723(b)(2) regulates the frequency with which leak surveys must be conducted outside business districts. SED alleges that PG&E violated this leak survey regulation in connection with the San Ramon incident.¹⁹² The requirement to conduct leak surveys is not a recordkeeping requirement.

5. 49 C.F.R. § 192.727, Abandonment or Deactivation of Facilities

SED alleges that PG&E violated section 192.727(b) in connection with the Lafayette incident. The regulation requires, in relevant part, that “[e]ach pipeline abandoned in place must be disconnected from all sources and supplies of gas”¹⁹³ This is an operational requirement that bears no connection to recordkeeping.

Alleged Violations of Construction Requirements and Miscellaneous California Laws

1. 49 C.F.R. § 192.321(e), Installation of Plastic Pipe

SED alleges that PG&E violated section 192.321(e) in connection with the Kentfield incident.¹⁹⁴ Section 192.321(e) is found in Subpart G of Part 192, which addresses construction requirements,¹⁹⁵ and specifically regulates the installation of tracer wire when installing plastic pipe.¹⁹⁶ Mr. Gawronski agreed that this regulation does not provide a recordkeeping requirement.¹⁹⁷

2. California Public Utilities Code § 961(d)(10)

SED alleges that PG&E violated section 961(d)(10) in connection with the Morgan Hill incident.¹⁹⁸ Section 961(d)(10) provides that PG&E should “ensure an adequately sized, qualified, and properly trained gas corporation workforce”¹⁹⁹ This is not a recordkeeping violation. Mr. Gawronski agreed that the statute does not “set forth a recordkeeping requirement.”²⁰⁰

3. California Government Code § 4216.3, Locating and Field Marking of Subsurface Installations

SED alleges multiple violations of California Government Code section 4216.3(a)(1), which requires:

[a]ny operator of a subsurface installation who receives timely notification of any proposed excavation work [to] locate and field mark the approximate location and, if known, the number of subsurface installations that may be affected by the excavation to the extent and degree of accuracy that the information is available either in the records of the operator or as determined through the use of standard locating techniques other than excavating²⁰¹

This statute prescribes operational standards for locating and marking underground facilities, such as the timing of field marks, methods that should be used to locate buried facilities, and means by which operators and excavators should communicate. Section 4216.3(a)(1) does not prescribe how records should be created, maintained, or accessed, and, thus, is outside the scope of this proceeding.

¹⁷⁹ 49 C.F.R. § 192.601 (“This subpart prescribes minimum requirements for the operation of pipeline facilities.”).

¹⁸⁰ 49 C.F.R. § 192.701.

¹⁸¹ Ex. 1 at 73:38 to 74:1 (PWA Report).

¹⁸² Pipeline & Hazardous Materials Safety Admin., *Operations & Maintenance Enforcement Guidance: Parts 192 Subparts L and M*, at 50.

¹⁸³ Ex. 1 at 42 tbl.4 (PWA Report) (citing the following incidents as bases for violations of section 192.614: 1/20/2015 San Jose, 8/27/2013 Lafayette, 11/7/2014 San Jose, 4/1/2011 Kentfield, 3/15/2010 Antioch, 9/28/2010 Alameda, 10/31/2011 Sacramento, 4/8/2014 San Francisco, and 8/12/2009 San Ramon).

¹⁸⁴ 49 C.F.R. § 192.614(a).

¹⁸⁵ 1/19/16 Tr. at 125:12 to 126:4 (SED/PWA) (PWA affirming that recordkeeping procedures related to mapping were not defective).

¹⁸⁶ See Ex. 17 (PG&E’s Response to SED Data Request No. 65).

¹⁸⁷ 1/19/16 Tr. at 125:5-9 (SED/PWA); Ex. 1 at 65 tbl.9 (PWA Report).

¹⁸⁸ 1/19/16 Tr. at 149:25-27 (SED/PWA) (PWA agreeing that PG&E’s Utility Work Procedure WP4412-03 from 2009, necessitating mutual contact between locate and mark personnel and excavator, “is consistent with 4216.3(a)(1)”).

¹⁸⁹ 49 C.F.R. § 192.617.

¹⁹⁰ SED also claims that PG&E has violated the DIMP regulations, section 192.1007, by not incorporating “learning from experience” from the Mountain View incident. Ex. 1 at 3:3-9 (PWA Report). This is simply a variation on the alleged violation of section 192.617 and is also not related to recordkeeping.

¹⁹¹ Ex. 4 at 5-30:24 to 5-31:10 (PG&E Reply Testimony, Singh) (describing PG&E’s causal evaluation procedures and stating that the definition of “causal evaluation” used therein “incorporates the ‘objectives’ of the root cause analysis outlined by PWA”); Ex. 7, Attachment W110 at W110.009 (Utility Procedure TD-4020P-02, Rev. 2, Gas Operations Cause Evaluation Process) (describing the causal evaluation process, explaining how PG&E implements it, and listing section 192.617 as a governing “compliance requirement / regulatory commitment”).

¹⁹² Ex. 1 at 47 tbl.4 (PWA Report).

¹⁹³ 49 C.F.R. § 192.727(b).

¹⁹⁴ Ex. 1 at 43 tbl.4 (PWA Report).

¹⁹⁵ See 49 C.F.R. § 192.301 (“This subpart prescribes minimum requirements for constructing transmission lines and mains.”).

¹⁹⁶ 49 C.F.R. § 192.321(e) (“Plastic pipe that is not encased must have an electrically conducting wire or other means of locating the pipe while it is underground.”).

¹⁹⁷ 1/19/16 Tr. at 119:7-22 (SED/PWA) (Mr. Gawronski stating that section 192.321(e) is a “requirement to install tracer wire” and agreeing that it is “not a recordkeeping requirement”).

¹⁹⁸ Ex. 1 at 38:4-5 (PWA Report).

¹⁹⁹ Cal. Pub. Util. Code § 961(d).

²⁰⁰ 1/19/16 Tr. at 121:8-12 (SED/PWA).

²⁰¹ Cal. Gov’t Code § 4216.3(a)(1).

APPENDIX D

Incidents with Disputed Facts

Incident	SED Description of Facts	PG&E Position on Disputed Facts
Montague Expressway and Great Mall Parkway, Milpitas	SED testimony states that “PG&E did not assign personnel to monitor the pressure to verify minimum safe operating pressure was being maintained during the work activity,” thereby implying that PG&E standards A-93.1 and D-S0454 required constant monitoring of pressure. ²⁰²	At the time of the incident neither PG&E standards A-93.1 nor D-S0454 specified how long to monitor the gauge pressure before stopping the flow of gas or how often to monitor the gauge pressure after the pipe has been severed throughout the duration of the job. ²⁰³
Charleston Road, Mountain View	SED contends that PG&E did not investigate the root cause of the Mountain View incident. ²⁰⁴	PG&E did investigate the cause of the Mountain View incident, and a PG&E engineer prepared an “Internal Gas Incident Review” describing the result of the investigation. ²⁰⁵
South Market Street, San Jose	SED’s description of the incident is incomplete and notes, in relevant part, that PG&E’s “L&M crew had attempted to contact the excavator one hour prior to the scheduled start of excavation; the communication was unsuccessful.” ²⁰⁶	There are additional facts not mentioned in SED’s testimony, including that PG&E “attempted five times to send an email to the email address that the contractor had provided. All of the emails bounced back because of a nonexistent address. The system then left an automated voicemail message for the excavator. PG&E did not receive a response from the excavator to coordinate the locate and mark prior to the excavation going forward The excavator did not return the call, but assumed that he was cleared to start work.” ²⁰⁷
Aughinbaugh Way, Alameda	SED alleges that the incident was caused by an inaccurate plat map. ²⁰⁸	PG&E confirmed that the plat map was, in fact, accurate. ²⁰⁹ SED withdrew its alleged violation based on the purported mapping error. ²¹⁰

Incident	SED Description of Facts	PG&E Position on Disputed Facts
Lone Tree Way, Antioch	SED criticizes the PG&E locator for not relying primarily on maps during the locate and mark process, thereby implying that the locator should have used maps instead of electrical means of locating. ²¹¹	PG&E’s procedures specify that electrical means are used first to locate underground facilities. ²¹² Here, “when the excavator was unable to locate the gas main through potholing, he asked the locator to confirm the marks. The locator ‘was in the process of re-marking when the backhoe operator hit the main.’” ²¹³
Grimes/Arbuckle Road and First Street, Colusa	SED does not acknowledge that this incident occurred on a transmission pipeline and is therefore out of scope. ²¹⁴	PG&E states that this was a gas transmission incident. ²¹⁵
Danville Road, Alamo	SED omits relevant facts regarding this incident. ²¹⁶	This incident involved an emergency locate and mark request under flooded conditions. ²¹⁷ Because the pipe could not be located precisely, PG&E requested that the excavator hand-dig. ²¹⁸ Instead, the excavator dug mechanically and struck the pipe. ²¹⁹

²⁰² Ex. 1 at 38:24-26 (PWA Report).

²⁰³ Ex. 4 at 3-25:3-17 (PG&E Reply Testimony, Higgins).

²⁰⁴ Ex. 1 at 48 tbl.5 (PWA Report).

²⁰⁵ See Ex. 4 at 3-26:26 to 3-27:14 (PG&E Reply Testimony, Higgins); Ex. 6, Attachment W048 (Gas Emergency Plan, Part VI – Division Plans, De Anza Division, Internal Gas Incident Review).

²⁰⁶ Ex. 1 at 17 tbl.2 (PWA Report).

²⁰⁷ Ex. 4 at 3-30:17 to 3-31:17 (PG&E Reply Testimony, Higgins).

²⁰⁸ Ex. 1 at 44 tbl.4 (PWA Report).

²⁰⁹ Ex. 4 at 3-32:25 to 3-33:5 (PG&E Reply Testimony, Higgins).

²¹⁰ 1/19/16 Tr. at 9:13-16 (SED/PWA); Ex. 2 at 24 (PWA Rebuttal).

²¹¹ Ex. 1 at 19 tbl.2 (PWA Report).

²¹² Ex. 4 at 3-33:12-16 (PG&E Reply Testimony, Higgins).

²¹³ *Id.* at 3-33:12-27 (PG&E Reply Testimony, Higgins).

²¹⁴ Ex. 1 at 19 tbl.2 (PWA Report).

²¹⁵ Ex. 10 at 3-34:3-4 (PG&E Errata to Reply Testimony, Higgins).

²¹⁶ Ex. 1 at 22 tbl.2 (PWA Report).

²¹⁷ Ex. 4 at 3-34:22-26 (PG&E Reply Testimony, Higgins).

²¹⁸ *Id.* at 3-35:1-3 (PG&E Reply Testimony, Higgins).

²¹⁹ *Id.* at 3-34:22 to 3-35:5 (PG&E Reply Testimony, Higgins).