STATE OF CALIFORNIA Gavin Newsom., *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 21, 2025 GI-2024-11-SDG-45-17

Mr. Rodger Schwecke
Senior Vice President and Chief Infrastructure Officer
San Diego Gas & Electric
555 West 5th Street, GT21C3
Los Angeles, CA 90013

Dear Mr. Schwecke:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a **General Order (G.O.) 112-F Comprehensive Operation and Maintenance Inspection of San Diego Gas & Electric (SDG&E)'s Borrego Springs Liquefied Natural Gas (LNG) Facility (Inspection Unit) and associated Natural Gas (NG) Distribution Pipeline for the Roadrunner Springs Community** on November 5 through 8, 2024. SED used the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Inspection Assistant (IA) as a reference guide to conduct the inspection. The inspection included a review of the Inspection Unit's leak survey, cathodic protection (CP), critical valves, and LNG facility inspection records from calendar years 2021-2023. SED staff also reviewed the implementation of the Operator Qualification program, observed randomly selected individuals performing covered tasks, and inspected the Inspection Unit's facilities and pipeline assets.

For the NG Distribution pipeline system, SED's staff did not identify any violation of G.O. 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, but noted one (1) area of concern which is described in the attached "Post-Inspection Written Preliminary Findings GD".

For the Borrego Springs LNG Facility, SED's staff identified three (3) probable violations of G.O. 112-F, Reference Title 49 CFR, Part 193, and twenty-six (26) areas of concern which are described in the attached "Post-Inspection Written Preliminary Findings LNG".

Please provide a written response within 30 days of your receipt of this letter indicating the measures taken by SDG&E to address the probable violations and areas of concern noted in both attachments.

Thank you for your cooperation in this inspection. If you have any questions, please contact Gordon Huang at (213) 503-5083 or by email at GHG@cpuc.ca.gov.

Sincerely,

Terence Eng

Terence Eng, P.E
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Attachments:
i) Post-Inspection Written Preliminary Findings GD
ii) Post-Inspection Written Preliminary Findings LNG

cc: see below

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Post-Inspection Written Preliminary Findings GD

Dates of Inspection: 11/4-8/2024

Operator: SAN DIEGO GAS & ELECTRIC CO

Operator ID: 18112 (primary)

Inspection Systems: SDG&E Borrego Spring LNG

Assets (Unit IDs) with results in this report: Borrego Springs Distribution (GI-2024-11-SDG-45)

System Type: GD

Inspection Name: Borrego Springs Distribution

Lead Inspector: Gordon Huang

Operator Representative: Austin Walker

Unsatisfactory Results

No Preliminary Findings.

Concerns

Maintenance and Operations : Gas Pipeline Operations (MO.GO)

Question Title, ID	Continuing Surveillance, MO.GO.CONTSURVEILLANCE.O (also presented in: PD.RW)
Question	3. Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?
References	192.605(b)(3) (192.613(b), 192.703(a), 192.703(b), 192.703(c))
Assets Covered	Borrego Springs Distribution (GI-2024-11-SDG-45)
Issue Summary	On 11/7/2024, SED observed SDG&E's leakage survey when a leak indication was found in leak survey plat 1079_A3_159 at Unit 10. This leak indication was graded as a Code 2 leak during the inspection. On 11/8/2024, SDG&E stated that it created Notification 100026783938 to track the Customer Service Field Department's (CSF) Service Order 12202810 in addressing the leak. SED concurs with SDG&E's stated plan of action and requests SDG&E to provide the associated Compliance Leak Survey record and Leak Repair Order following completion of repairs and the leak survey in question.

Post-Inspection Written Preliminary Findings LNG

Dates of Inspection: 11/4-8/2024

Operator: SAN DIEGO GAS & ELECTRIC CO

Operator ID: 18112 (primary)

Inspection Systems: SDG&E Borrego Spring LNG

Assets (Unit IDs) with results in this report: Borrego Springs LNG (87076)

System Type: LNG

Inspection Name: Borrego Springs LNG

Lead Inspector: Gordon Huang

Operator Representative: Austin Walker

Unsatisfactory Results

Facilities and Storage : Facilities General (FS.FG)

1. Question Title, ID: Fire Protection Evaluation, FS.FG.FIREPROTEVAL.R (also presented in: DC.FIREPROT)

Question: 1. Do records indicate that an adequate fire protection evaluation has been conducted as required by NFPA 59A, Section 9.1.2?

References: 193.2801 (NFPA 59A, Section 9.1.2, NFPA 600, NFPA 72, NFPA 1221)

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: Per SDG&E's response to Data Request (DR)-09 on November 8, 2024, SDG&E did not conduct any fire protection evaluations per NFPA 59A-2001 §9.1.2 between 2021 and 2023.

On 12/26/2024, SDG&E provided the latest LNG facility compliance evaluation prepared by Burns & McDonnell Engineering Company, Inc (BMcD review) on 2/28/2014. Among other industrial standards, the compliance review identified NFPA 59A (unknown edition) as "being applicable" to the Borrego LNG Facility.

Per 49 CFR, Part 193, §193.2801, LNG facilities must provide and maintain fire protection in compliance with NFPA 59A (2001) Sections 9.1 through 9.7 and 9.9. Section 9.1.2 requires fire protection evaluations to determine, at a minimum, nine areas relating to fire protection. The BMcD review addresses some of these topics in various sections, mostly in Sections 4 (Overview of Major Components) & 5 (Additional Considerations).

However, some required topics were not addressed or referenced in the BMcD review. Topics that were not adequately addressed include protection methods based on thermal radiation/

dispersion modelling (NFPA 59A-2001 Section 9.1.2(4)), availability and duties of individual plant personnel and external emergency response personnel (NFPA 59A-2001 Section 9.1.2(8)), and protective equipment/ special training/ and NFPA 600 Standard on Industrial Fire Brigades qualification (NFPA 59A-2001 Section 9.1.2(9)).

Protection methods based on thermal radiation and dispersion modelling were not adequately established as they were not supported by any thermal radiation or dispersion model. Per the BMcD review, Section 5.3, neither a thermal radiation nor dispersion model were "not merited" due to the "small size" of the facility and "low quantity" of LNG. These are not causes for exception per NFPA 59A-2001 and §193.2801. The other two topics in the above paragraph are not mentioned in the BMcD review.

Therefore, SED finds SDG&E in violation of G.O. 112-F, Reference 49 CFR, Part 193, §193.2801, for failure to conduct an adequate fire protection evaluation for the Borrego Springs LNG Facility which includes protection methods based on thermal radiation/ dispersion modelling (NFPA 59A-2001 Section 9.1.2(4)), availability and duties of individual plant personnel and external emergency response personnel (NFPA 59A-2001 Section 9.1.2(8)), and protective equipment/ special training/ and NFPA 600 Standard on Industrial Fire Brigades qualification (NFPA 59A-2001 Section 9.1.2(9)).

Maintenance and Operations : Liquid Pipeline Maintenance (MO.LM)

2. Question Title, ID Testing Auxiliary Power Sources, MO.LM.AUXPOWERTEST.P

Question 16. Does the process require that auxiliary power sources be tested monthly for operational capability and annually for capacity?

References 193.2017(a) (193.2605(b), 193.2613)

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary Title 49 CFR, Part 193, Section 193.2613 states:

"Each auxiliary power source must be tested monthly to check its operational capability and tested annually for capacity. The capacity test must take into account the power needed to start up and simultaneously operate equipment that would have to be served by that power source in an emergency."

SED finds SDG&E in violation of GO 112-F, Reference 49 CFR, Part 193, §193.2613, for failure to mention a process in SDG&E's Borrego Springs LNG Facility Operation and Maintenance (O&M) Manual (10/2024 version) that requires the auxiliary power sources (i.e. Un uninterrupted Power Supply (UPS)) to be tested annually for capacity.

On November 26, 2024, SDG&E provided SDG&E's Borrego Springs LNG Facility O&M Manual (11/2024 version). Section 2.1 has been revised to now include testing for capacity during startup and operation during an emergency. SED considers this issue to be closed.

Training and Qualification : Operator Qualification (TQ.OQ)

3. Question Title, ID Personnel Health, TQ.OQ.PERSONHEALTH.P

Question 7. Is there an adequate plan for evaluating the health and physical condition of personnel assigned operations, maintenance, security, or fire protection duties?

References 193.2017(a) (193.2711)

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version) does not include a requirement to verify the health and physical condition of staff assigned operations and maintenance, security, or fire protection duties per §193.2711.

§193.2711 states:

> *"Each operator shall follow a written plan to verify that personnel assigned operating, maintenance, security, or fire protection duties at the LNG plant do not have any physical condition that would impair performance of their assigned duties. The plan must be designed to detect both readily observable disorders, such as physical handicaps or injury, and conditions requiring professional examination for discovery."*

Therefore, SED finds SDG&E in violation of G.O. 112-F, Reference 49 CFR, Part 193, §193.2711, for failure to include a written plan to evaluate the health and physical condition of personnel assigned to operations, maintenance, and fire protection (emergency) duties.

Furthermore, SED requests SDG&E to incorporate a plan (or reference to existent plan(s)) in its Borrego LNG manual for evaluating the health and physical condition of personnel assigned operations, maintenance, or fire protection (emergency) duties as previously elaborated to SED during the 2021 inspection. This process could include a "fit for duty" sign off for LNG facility personnel prior to performing duties for the day.

Concerns

Facilities and Storage : Facilities General (FS.FG)

1. Question Title, ID: Flammable Gas, Low Temperature and Fire Detection, FS.FG.FIREDETECT.R (also presented in: DC.FIREPROT)

   Question: 4. Do records indicate that flammable gas and fire detection systems meet the requirements of NFPA 59A (2001), Section 9.3?

   References: 193.2801 (NFPA 59A, Section 9.3, 193.2101(a), 193.2301, 193.2101(b))

   Assets Covered: Borrego Springs LNG (87076 (45))

   Issue Summary: Per SDG&E's response on 11/20/2024 to DR-28, there are no fire detection devices present at the Borrego LNG Facility. On 12/26/2024, SDG&E responded to DR-12 stating there are "fusible link valves" at the discharge of each tank. This device would melt when exposed to fire and result in Emergency Shutdown Device (ESD) activation and emergency notification to SDG&E. This device is described in Burns and McDonnell's 2/28/2014 Borrego Springs LNG Facility Code Compliance Review, under Section 4.4.1.

   The fire detection device described appears to meet requirements under NFPA 72 (1999) Section 2-5 in turn required by NFPA 59A (2001) Section 9.3.4.

   SED requests SDG&E to provide further technical specification records from the manufacturer for data such as recommended placement location, fire intensity, and fire size demonstrating the efficacy of its other fire detectors' implementation.

2. Question Title, ID: Entering Confined or Hazardous Space, FS.FG.CONFINEDSPACE.P

   Question: 12. Do the written practices and procedures for the entry of personnel into confined or hazardous space meet the requirements of NFPA 59A, Section 9.7.3?

   References: 193.2017(a) (193.2801)

   Assets Covered: Borrego Springs LNG (87076 (45))

   Issue Summary:
   1. SDG&E's Borrego Springs LNG Manual (10/2024 version) Section 3.3's entry process mentions the use of Combustible Gas Indicators (CGIs) by personnel. During the

11/7/2024 field observation, SDG&E informed SED that its CGIs, GMI Gasurveyors (GMIs), would be retrieved from the equipment shed to check for leaks. However, the GMIs are stored inside a shed within an enclosure that the personnel needs to enter first. This practice may expose its personnel to a gaseous environment while approaching the GMIs for a leak test. For the personal safety, SED recommends SDG&E personnel to enter the enclosure with a calibrated GMI unit, e.g. obtaining from a crew truck, as an added precaution.

2. SDG&E's Borrego Springs LNG Manual (10/2024 version) Section 5.2 discusses emergency response personnel, stakeholder groups, and responsibilities. However, there is no reference to confined or hazardous space entry procedures requiring protection for employees per NFPA 59A-2001 §9.7.3. SED recommends SDG&E to consider incorporating references to its existing procedures which may be applicable including, but not limited to, G8202 Field Guidelines - Emergency Incident Distribution/ Customer Service, G8169 Prevention of Accidental Ignition of Natural Gas, and G8320 Working in a Hazardous Atmosphere.

On November 26, 2024, SDG&E provided the following responses:

1. SDG&E acknowledged field technicians should use their trucks' GMI before entering the LNG facility. Accordingly, SDG&E has updated its training documents and has discussed this practice with all qualified personnel.
2. SDG&E agreed with SED's recommendations and revised its LNG manual to refer to G8202, G8169, and G8320.

For the first finding, SED concurs with SDG&E's proposed remedial actions and requests SDG&E provide the revised training documents for review.

For the second finding, SED has reviewed SDG&E's revised LNG Manual (11/2024 version) and considers this matter closed. No further response from SDG&E is required at this time.

3. Question Title, ID: Availability of Gas Detectors, FS.FG.GASDETECTORS.O

Question: 14. Are at least three portable gas detectors readily available at the plant in accordance with NFPA 59A, Section 9.7.4?

References: 193.2801 (NFPA 59A, Sections 9.7)

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: Title 49, CFR Part 193, Section 193.2801 states:

"Each operator must provide and maintain fire protection at LNG plants according to sections 9.1 through 9.7 and section 9.9 of NFPA-59A-2001 (incorporated by reference, see § 193.2013)."

At the LNG facility, there are two portable gas detectors available for use in the plant equipment shed. SDG&E personnel stated on 11/7/2024 that its crews carries a third portable gas detector on its crew vehicle during inspections at the LNG facility, but it is unclear if this is a best practice or standard process for SDG&E. Regardless, NFPA 59A (2001) Section 9.7.4 requires at least three portable flammable gas detectors to be available for use at the LNG facility as a portable backup and reference per Appendix A.9.7.4. SED recommends SDG&E to make a third portable gas detector available on-site at the Borrego LNG Facility to meet NFPA 59A-2001 Section 9.7.4 as required by §193.2801.

4. Question Title, ID: Venting in Case of Emergency, FS.FG.VENTING.P

Question: 15. Does the process for depressurizing the plant or venting LNG in the event of an emergency meet the requirements of NFPA 59A, Section 9.9.1?

References: 193.2017(a) (193.2801, NFPA 59A, Sections 9.7)

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SDG&E's Borrego Springs LNG Manual (10/2024 version) Section 3.9 provides a general process for depressurizing the LNG facility's tanks via isolation, purging with nitrogen, and venting LNG

to atmosphere in conjunction with a specifically prepared Gas Control Plan. However, the process does not mention any requirements to direct the resulting discharge to minimize exposure to personnel and equipment (NFPA 59A-2001 §9.9.2). SED recommends SDG&E to consider incorporating this requirement in its written process.

On November 26, 2024, SDG&E stated it revised its LNG Manual per SED's recommendation. SED has reviewed SDG&E's revised LNG Manual (11/2024 version) and considers this matter closed. No further response from SDG&E is required at this time.

5. Question Title, ID: Security Lighting, FS.FG.SECURITYLIGHT.P (also presented in: DC.SECURITY)

Question: 23. Does the process require adequate facility security lighting be provided?

References: 193.2911 (193.2017(a), 193.2017(b), 193.2017(c))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 1.6 - Site Security System, requires facility wide lighting but did not mention any details regarding its nighttime operation nor its illuminance. On 11/5/2024, SDG&E stated that there are lighting limitations in place by City of Borrego Springs for dark sky and environmental considerations. However, the Borrego LNG Facility O&M Manual does not mention this limitation, illuminance restrictions (in lux), hours of operation restrictions, nor include documents of said restrictions.

§193.2911 states, in part:
"...the area around the facilities listed under § 193.2905(a) and each protective enclosure must be illuminated with a minimum in service lighting intensity of not less than 2.2 lux (0.2 ftc) between sunset and sunrise."

SED recommends SDG&E to include detailed technical limitations on illumination limitations and/or insert a copy of said limitations by the issuing agency in its Borrego LNG Facility O&M Manual.

6. Question Title, ID: Security System Alternate Source of Power, FS.FG.ALTPOWER.P (also presented in: DC.SECURITY)

Question: 27. Does the process require an adequate alternate (back-up) source of power for security lighting, and security monitoring and warning systems?

References: 193.2915 (193.2445(a), 193.2445(b), 193.2017(a), 193.2017(b), 193.2017(c))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SDG&E's Borrego Springs LNG Facility O&M Manual (10/2024 version) Section 1.2 - System Operation and Design, states that an Uninterruptible Power Supply (UPS) will maintain the remote terminal unit (RTU) control system during power failures. The RTU communicates with SDG&E's Supervisory Control And Data Acquisition (SCADA) system and provides pressure and liquid level data to the Gas Control group.

On 11/6/2024, SDG&E confirmed that the UPS would also maintain power for all other facility systems in the event of a power failure. On 11/20/2024, SDG&E also confirmed (in response to DR-28) its security cameras would be powered by its UPS, but not its security lighting. SDG&E explained in its response to DR-30 that its security cameras have low-light and thermal imaging capabilities so lighting would not be required for its cameras to function. SED has reviewed its responses and concurs with both points.

On 11/26/2024, SDG&E stated it revised its LNG Manual to include "security cameras" as being powered by its UPS. SED has reviewed SDG&E's revised LNG Manual (11/2024 version). In addition, SED recommends SDG&E add the supporting explanation given in response to DR-30 to its procedures as well.

7. Question Title, ID: Sources of Power, FS.FG.POWERSOURCES.P

Question 29. Does the process require at least two sources of power for communication, emergency lighting, and firefighting systems?

References 193.2445(a) (193.2445(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary Title 49, CFR Part 193, Section 193.2445(a) states:

"Electrical control systems, means of communication, emergency lighting, and firefighting systems must have at least two sources of power which function so that failure of one source does not affect the capability of the other source."

SDG&E's Borrego LNG Facility O&M Manual (10/2024 version), Section 1.2 System Operation and Design mentions that an onsite Uninterruptible Power Supply is present to maintain auxiliary power for the Remote Terminal Unit, audible alarm, security communications, and security camera systems. In SDG&E's response on 11/20/2024 to DR-28, the UPS also provides auxiliary power for the facility's gas detection devices.

No mention is made of the UPSs' ability to supply auxiliary power to the gas detection devices nor to the enclosure security lighting in the LNG Facility O&M Manual (10/2024 version). These items are required under §193.2445(a). SED recommends SDG&E revise its procedures to confirm the UPSs' ability to power the gas detection devices and enclosure security lighting after making the necessary electrical refits.

On November 26, 2024, SDG&E stated it revised its LNG Manual per SED's recommendation. SED has reviewed SDG&E's revised LNG Manual (11/2024 version) and considers this matter closed. No further response from SDG&E is required at this time.

Facilities and Storage : Tanks and Storage (FS.TS)

8. Question Title, ID LNG Storage Tanks, FS.TS.LNGSTRGTANK.P

Question 1. Does the process require that LNG storage tanks be inspected or tested to verify tank safety and structural integrity?

References 193.2017(a) (193.2605(b), 193.2623(a), 193.2623(b), 193.2623(c), 193.2623(d))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (10/2024 version) Section 2.1 states periodic inspections of the LNG system are performed on a weekly, monthly, and annual basis. Sections 4.1-4.4 inspection forms include field forms to record frost heave conditions, abnormal operating conditions, leakage, and temperatures (for checking insulation). However, the manual does not mention any additional inspections required per General Order 94-B (approved 4/29/1952, effective 6/1/1952, revised 11/12/1970) on SDG&E's proposed 10-year tank inspection process.

General Order (GO) 94-B Section 5(e)(1) pages 20-21 state, in part:

"Additional Inspections:

Except as hereinafter provided, after a vessel has been used for the storage of liquid hydrocarbons for a period of twenty years and at intervals not exceeding twenty years thereafter, a complete and thorough internal and external inspection shall be made and reported upon by competent outside inspectors, not regularly in the employ of the utility who are selected by the utility and are agreeable to the Commission.

...

As an alternative to entering the container, or to cutting plugs or boring holes in the vessel or holder, a nondestructive test procedure such as ultrasonic testing may be used. The test

instrument must be calibrated to measure the wall thickness of the steel plates so that the error of indication shall not vary more than plus or minus two thousandths (+ 0.002) of an inch.

...

Details of what shall constitute these inspections will be found set forth in the inspection forms prescribed by the Commission. The person or persons making such inspections shall submit a complete report of the condition of each vessel to the company and at the same time forward a copy to the Commission. When such vessels as are inspected are found to be in a defective and hazardous condition they shall be taken out of service until repaired and placed in a safe workable condition, and all others in the same group shall immediately be inspected and repaired if found necessary.

In the years that the inspections described above are made, the utility will not be required to make the regular annual general inspection."

In SDG&E's letter dating 8/6/1990 to CPUC, SDG&E stated that it would conduct a 10-year inspection process of its Borrego LNG Facility. This would involve ultrasonic testing in 25 locations to investigate corrosion, checking foundation elevation for a foundation settlement analysis, visual inspection of cold spots, and visual inspection of foundation flaws. This 10-year inspection would complement its regular annual and weekly inspections. CPUC's response on 10/23/1990 concurred with the stipulation that a CPUC inspector be present for the inspection process.

Burns & McDonnell's Borrego Springs LNG Facility Code Compliance Review noted additional 10-year tank inspections were performed in 2000 and 2013. With the report, Burns & McDonnell recommended SDG&E continue the 10-year tank inspection and cover the procedures iterated to CPUC in 1990.

While SDG&E currently conducts weekly, monthly, and annual LNG facility inspections which include visual examination of external corrosion and other issues, SED notes that the 10-year tank inspection process provides additional benefits to verifying tank safety and structural integrity. In addition, the 10-year inspection process would meet SDG&E's requirements per G.O. 94-B Section 5(e)(1). SED recommends SDG&E to revise its Borrego LNG Facility O&M Manual (11/2024 version) to reflect its previous commitments and to comply with G.O. 94-B such as the 10-year tank inspection process.

9. Question Title, ID: LNG Storage Tanks, FS.TS.LNGSTRGTANK.R

Question: 2. Do records show that LNG storage tanks have been adequately inspected?

References: 193.2639(a) (193.2623(a), 193.2623(b), 193.2623(c), 193.2623(d))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SED reviewed SDG&E's Borrego LNG Facility Annual and Monthly/ Weekly Inspection records between 2021 and 2023. In the records, basic visual assessment of the piping and LNG tanks (Tank-1 (8,000 gal) and Tank-2 (6,000 gal)) were documented. However, the records did not indicate whether SDG&E conducted its 10-year inspection involving ultrasound testing as previously performed in 1990, 2000, and 2013. Please refer to FS.TS.LNGSTRGTANK.P for further details and references.

SED requests SDG&E provide records relating to any 10-year tank inspection(s) conducted between 2021 through 2023. If the 10-year tank inspection was not performed during the inspection timeframe, please provide a written explanation including any extenuating circumstances or directives.

10. Question Title, ID: LNG Storage Tanks, FS.TS.LNGSTRGTANK.O

Question: 3. Do LNG storage tanks appear structurally sound and safe?

References: 193.2623(a) (193.2623(b), 193.2623(c), 193.2623(d))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary During SED's field observation of the Borrego Springs LNG facility on 11/7/2024, SED observed what appeared to be dents or warping on the side of tank T-2 (secondary 6000-gallon tank). This observation was noted to SDG&E personnel while on the premises. An image of said condition was transmitted to SDG&E on 11/8/2024 per DR-24.

SED requests SDG&E to please provide an engineering assessment of any impact to the tank's structural integrity and safety from the observed condition. In addition, SED requests SDG&E to elaborate on why the observed condition may or may not be identified as an abnormal operating condition.

On 11/15/2024, SDG&E stated the deformation had been identified with "no significant wall loss" in previous 10-year tank inspections. Per SDG&E's weekly vacuum readings, no significant loss of vacuum has been recorded. Measurements of the stainless-steel jacketing were taken on 11/14/2024 (W 13.125" x H 14.25" x D 0.54").

SED utilized API 653 (Tank Inspection, Repair, Alteration, and Reconstruction) 5th edition, Section 4.3's equation for minimum acceptable thickness for shell course to verify structural integrity. Based upon allowable assumptions per the industry standard, field measurements, and SDG&E's suppliers' Material Safety Data Sheet, the deformation's wall thickness does not appear to adversely affect the tank jacketing's structural integrity. No further response from SDG&E is required at this time. However, SED may re-examine this topic in the future based on future inspections and readings taken by SDG&E.

Maintenance and Operations : Liquid Pipeline Maintenance (MO.LM)

11. Question Title, Transfer Hoses, MO.LM.TXHOSE.P
ID

Question 25. Does the process require the testing and inspection of transfer hoses before use and annually?

References 193.2017(a) (193.2605(b), 193.2621(a), 193.2621(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary 49 CFR §193.2017(a) states, in part:

"Each operator shall maintain at each LNG plant the plans and procedures required for that plant by this part."

49 CFR §193.2605(a) states:

" Each operator shall determine and perform, consistent with generally accepted engineering practice, the periodic inspections or tests needed to meet the applicable requirements of this subpart and to verify that components meet the maintenance standards prescribed by this subpart."

49 CFR §193.2621(a) states:

"Hoses used in LNG or flammable refrigerant transfer systems must be:

(a) Tested once each calendar year, but with intervals not exceeding 15 months, to the maximum pump pressure or relief valve setting;"

SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 3.4 and 3.5 require visual inspection of transfer hoses for damage and defects prior to use during cargo transfer operations. However, the procedure does not require testing of the transfer hoses used in LNG transfer systems. In response to SED's data request (DR-03), SDG&E stated, "We have confirmed with both Applied LNG and Clean Energy that they own, maintain, test, and inspect

their LNG hoses that are installed on their trucks per 193.2621. Suppliers indicate that it is the responsibility of the owner of the transfer hoses to furnish documentation which is not within SDG&E's scope during this audit, as SDG&E is not the owners of those transfer hoses. We have been advised that suppliers are subject to audit and provide documentation of meeting the CFR code when it is requested of them." SDG&E's responses additionally emphasized that the transfer hoses used in cargo transfer operations are not owned, maintained, or inspected by SDG&E and posits that as a result the transfer hoses are not part of SDG&E's cargo transfer system for its Borrego Springs LNG facility.

SED respectfully disagrees with SDG&E's interpretation regarding the transfer hoses used in the cargo transfer system and in cargo transfer operations at the Borrego Springs LNG Facility. While it is true that SDG&E does not own the transfer hoses used in the cargo transfer operations by its LNG suppliers, the transfer hoses are part of the cargo transfer system and facilitate said operations.

49 CFR §193.2007 defines a cargo transfer system as:

"a component, or system of components functioning as a unit, used exclusively for transferring hazardous fluids in bulk between a tank car, tank truck, or marine vessel and a storage tank"

For the Borrego LNG facility, the transfer hoses are used in SDG&E's Borrego LNG Facility O&M Manual (11/2024 version) per Section 3.4 and 3.5 to transfer LNG between the suppliers' tank truck, various valves, and the tank being filled. In this scenario, the transfer hoses are part of the cargo transfer system. As such, per §193.2621(a), the transfer hoses are subject to testing once each calendar year, not to exceed 15 months, to the maximum pump pressure.

During a previous inspection of SDG&E's Borrego LNG Facility, the response given to SED was that the transfer hoses involved in the cargo transfer operations and cargo transfer system fall under Title 49 CFR Part 177. In the response given to SED at the time, the relevant regulation cited stated transfer hoses are inspected prior to each use to ensure they are of "sound quality, without defects detectable through visual observation". However, this does not preclude the transfer hoses from being subject to §193.2621(a) requirements. Firstly, the visual inspection criteria aligns with the requirements of §193.2621(b) and does not conflict with §193.2621(a). Secondly, the regulatory reference from 49 CFR Part 177 comes from §177.834(i)(3)(iii)(A). This code reference defines attendance requirements for qualified persons during loading and unloading operations. In order for a qualified person to be considered attending to the loading or unloading of a cargo tank, the hoses used in loading and unloading operations with certain appurtenances and have been inspected prior to use. Given this context, the Part 177 requirements are focused upon the qualified person attending to the unloading operation and does not necessarily conflict or exclude transfer hose requirements per §193.2621(a).

SDG&E stated in its response that its LNG suppliers, Applied LNG and Clean Energy, do maintain, test, and inspect the LNG transfer hoses used in the cargo transfer operations per §193.2621. Additionally, SDG&E states its suppliers' documentations meet the requirements in §193.2621. Acknowledging the ongoing processes and available records per SDG&E's response, SED recommends SDG&E to revise its Borrego LNG Facility O&M Manual to elaborate the procedures of the transfer hose's testing, inspection and documentation handled either by SDG&E or its suppliers per the requirements of §193.2621(a).

12. Question Title, ID: Transfer Hoses, MO.LM.TXHOSE.R

Question: 26. Do records show that transfer hoses have been tested once each calendar year and inspected before each use?

References: 193.2639(a) (193.2621(a), 193.2621(b))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: Per SDG&E's response on 11/6/2024 (to DR-03), SDG&E does not inspect or maintain any of the transfer hoses used in its cargo transfer operations. Instead, SDG&E's LNG suppliers maintain, inspect, and test the transfer hoses per §193.2621.

49 CFR §193.2621(a) states:

"Hoses used in LNG or flammable refrigerant transfer systems must be:

(a) Tested once each calendar year, but with intervals not exceeding 15 months, to the maximum pump pressure or relief valve setting"

SED requests SDG&E to acquire copies of its LNG suppliers' documentation relating to the inspection and testing of the transfer hoses per §193.2621(a) moving forward. These documents must demonstrate that the transfer hoses are tested once each calendar year, in intervals not exceeding 15 months, to the maximum pump pressure or relief valve setting involved in the Borrego LNG cargo transfer/tank fill operations per §193.2621(a). In addition, SED requests SDG&E to provide a copy of said documentation for the transfer hose(s) used during the 12/4/2023 Borrego LNG Fill operation (SAP# 510000995104).

Maintenance and Operations : Liquid Pipeline Operations (MO.LO)

13. Question Title, Vaporization Design Limits, MO.LO.VAPORIZATION.P
ID

Question 14. Does the process require that vaporizers operate within design limits?

References 193.2017(a) (193.2503(e))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary Title 49, CFR Part 193, Section 193.2503(e) states:

"In the case of vaporization, maintaining the vaporization rate, temperature and pressure so that the resultant gas is within limits established for the vaporizer and the downstream piping."

Per SDG&E's Borrego LNG Facility O&M Manual (10/2024 version), Section 1.2 System Operation and Design, the Borrego LNG Facility uses LNG Ambient Air Vaporizers (AAV). Due to their design and capacity of 8 vaporizers, the maximum vaporization capacity is 0.238 MMCF/D per SDG&E's 2023 LNG Annual Report. No system capacity change has occurred since the 2014 station renovation project.

However, there is no written requirement for vaporizers' resultant gas to be within established operating limits for the vaporizer and its downstream piping in the manual. Additional parameters for downstream relief valve capacity resulting from the AAVs' operation are also not included. SED recommends SDG&E consider incorporating the aforementioned requirements for future vaporizer installation/ replacement.

14. Question Title, Cargo Transfer Process, MO.LO.CARGOTRANS.P
ID

Question 24. Does the process require the cargo transfer procedures be located at the transfer area and contain the provisions of 193.2513(c)?

References 193.2017(a) (193.2513(a), 193.2513(c))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Sections 3.4 and 3.5 outline the cargo transfer procedures from an LNG tanker truck to Tank 1 and Tank 2, respectively. Per Section 10, a copy of SDG&E's Borrego LNG Facility O&M Manual is to be located at the Borrego LNG Facility.

SED reviewed the procedures and found that they addressed all provisions of §193.2513(c) except §193.2513(c)(2).

Per §193.2513(c)(2):

"(c) In addition to the requirements of paragraph (b) of this section, the procedures for cargo transfer must be located at the transfer area and include provisions for personnel to:

...

(2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver"

Sections 3.4 and 3.5 refer to Section 3.3 for the Site Entry Procedure for further details regarding ingress. However, none of the sections restrict backing of the transfer trucks and address the requirement of a rear spotter/signaler.

Therefore, SED requests SDG&E to revise its Borrego LNG Facility O&M Manual to specifically include a provision prohibiting backing in tank trucks in the LNG facility unless a spotter or signaler is directly providing guidance to the driver.

15. Question Title, ID: Cargo Transfer Process, MO.LO.CARGOTRANS.R

Question: 25. Do records show that cargo transfers were conducted in accordance with the process?

References: 193.2513(c)

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SED reviewed Borrego LNG Fill records SAP# 51000095104 (performed 12/4/2023) and #510000826501 (performed 7/20/2021) which document SDG&E's cargo transfers from its LNG suppliers to the facility's Tank 1 and Tank 2. The Fill records include several steps required per §193.2513(c) and SDG&E's Borrego LNG Facility O&M Manual (11/2024 version) Sections 3.4 & 3.5. However, the records do not mention provisions regarding backing tank trucks into the transfer area, immobilizing the tank truck, truck engine operation during transfer operations, and transfer hose disconnections.

Per §193.2513(c):

"(c) In addition to the requirements of paragraph (b) of this section, the procedures for cargo transfer must be located at the transfer area and include provisions for personnel to:

...

(2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver;

...

(3) Before transfer, verify that:

(iii) Each tank truck is properly immobilized with chock wheels, and electrically grounded; and

(iv) Each tank truck engine is shut off unless it is required for transfer operations;

...

(4) Prevent a tank truck engine that is off during transfer operations from being restarted until the transfer lines have been disconnected and any released vapors have dissipated;

...

(6) Verify that all transfer lines have been disconnected and equipment cleared before the tank car or tank truck is moved from the transfer position;"

It is unclear whether the aforementioned steps were followed during cargo transfer operations because the reviewed records did not outline the aforementioned steps. Therefore, SED recommends SDG&E to revise its FastField record template to document the transfer truck operation per its LNG Facility O&M Manual Sections 3.4 and 3.5.

16. Question Title, ID: Investigation of Failures, MO.LO.FAILINVESTIGATE.P

Question: 27. Does the process require that failures be investigated?

References: 193.2515(a) (193.2515(b), 193.2515(c))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: Title 49, CFR Part 193, Section 193.2515(a) states:

"Each operator shall investigate the cause of each explosion, fire, or LNG spill or leak which results in:

(1) Death or injury requiring hospitalization; or

(2) Property damage exceeding $10,000. "

SDG&E's Borrego LNG Facility O&M Manual (10/2024 version), Section 6 Incident Investigation contains SDG&E's intranet link to the incident investigation process. Section 6 also contains a "Safety Incident Report" which appears to document basic incident and initial emergency response information such as documenting injured persons.

It is unclear whether the intranet link is meant to direct SDG&E personnel to specific forms used for incident investigation, forms related to SDG&E's Gas Standard G8225 Investigation of Pipeline Accidents and Failures (e.g., Workgroup Cause Analysis Form), or SDG&E's internal form repository. SED recommends SDG&E revise its LNG Facility O&M Manual to provide clear instructions or references to implementing the incident investigation process when there are casualties or property damage exceeding $10,000 per §193.2515.

17. Question Title, ID: Communication Systems, MO.LO.COMMSYS.P

Question: 29. Does the process require an adequate communication system?

References: 193.2519(a) (193.2519(b), 193.2519(c), 193.2445(a), 193.2445(b))

Assets Covered: Borrego Springs LNG (87076 (45))

Issue Summary: SDG&E's Borrego LNG Facility O&M Manual (11/2024 version) does not elaborate on any communication systems employed at the LNG facility for communication between LNG operations and maintenance personnel.

Per §193.2519(a):

"Each LNG plant must have a primary communication system that provides for verbal communications between all operating personnel at their work stations in the LNG plant."

SED recommends SDG&E to describe any communication systems employed at the Borrego LNG facility, if any, in its LNG O&M Manual. If none is employed, a justification should be explained in the manual regarding this topic.

Time-Dependent Threats : External Corrosion - Cathodic Protection (TD.CP)

18. Question Title, Prompt Remedial Action, TD.CP.REMEDIATE.P
ID

Question 12. Does the process require that prompt remedial action be taken whenever corrosion control deficiencies are found?

References 193.2017(a) (193.2605(b), 193.2637)

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (10/2024 version), Section 2.1 Periodic Inspection Summary mentions under "Cathodic Protection" that "any signs of corrosion... will be recorded on respective order forms and reported to a supervisor for correction". The form templates under Sections 4.3 and 4.4 capture corrosion conditions.

However, the manual does not define the timeframe for promptly corrective or remedial action should any indications of corrosion be found during these inspections per §193.2637. SED recommends SDG&E to outline or make a reference to the correction/remediation timeframe in the manual for any corrosion found at the Borrego LNG Facility as required under §193.2605(b)(2) for §193.2637.

Time-Dependent Threats : Internal Corrosion - Preventive Measures (TD.ICP)

19. Question Title, Internal Corrosion, TD.ICP.INTCORR.P
ID

Question 1. Does the process require that components subject to internal corrosive attack be made of corrosion-resistant material or be otherwise protected?

References 193.2017(a) (193.2605(b), 193.2631(a), 193.2631(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's LNG Manual Section 1.2 states the following, in part:

"All current LNG and gas carrier piping components are located above ground and are made of corrosion resistant stainless-steel piping to handle the thermal cycling of cold cryogenic liquid."

This language was revised by SDG&E in response to SED's previous inspection in 2021. While the previously mentioned inclusion by SDG&E into the manual was done, the language of this requirement does not align with the scope of components under §193.2631. The manual refers to "LNG and gas carrier piping components" being composed of "stainless-steel piping" whereas §193.2631 refers to all components as defined under §193.2007. SED recommends SDG&E to revise its manual's language to expand the requirement, per the definitions of §193.2631, to all components.

On November 26, 2024, SDG&E stated it revised its LNG Manual per SED’s recommendation. SED has reviewed SDG&E’s revised LNG Manual (11/2024 version) and considers this matter closed. No further response from SDG&E is required at this time.

20. Question Title, Monitoring for Internal Corrosion, TD.ICP.INTCORRMONITOR.P
ID

Question 2. Does the process require that internal corrosion monitoring devices be checked at least twice each calendar year, not to exceed 7.5 months?

References 193.2017(a) (193.2605(b), 193.2635(e))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary Title 49, CFR Part 193, Section 193.2605(b) states:

"Each operator shall follow one or more manuals of written procedures for the maintenance of each component, including any required corrosion control. The procedures must include:

(1) The details of the inspections or tests determined under paragraph (a) of this section and their frequency of performance; and

(2) A description of other actions necessary to maintain the LNG plant according to the requirements of this subpart."

Title 49, CFR Part 193, Section 193.2635(e) states:

"If a component is protected from internal corrosion, monitoring devices designed to detect internal corrosion, such as coupons or probes, must be located where corrosion is most likely to occur. However, monitoring is not required for corrosion resistant materials if the operator can demonstrate that the component will not be adversely affected by internal corrosion during its service life. Internal corrosion control monitoring devices must be checked at least two times each calendar year, but with intervals not exceeding 71/2 months."

Per SDG&E's response on 11/8/2024 to DR-11, no internal corrosion control monitoring devices are currently present at the facility as all components are made of aboveground stainless steel. SDG&E stated that its LNG suppliers are contracted to provide tariff quality LNG and provide SDG&E supporting product analyses upon delivery. The QA/QC process as described by SDG&E could be used to meet §193.2635(e) requirements.

However, this process is not mentioned in SDG&E's Borrego LNG Facility O&M Manual (10/2024). Furthermore, this process does not explain how the Borrego LNG Facility's components will be unaffected by internal corrosion. SED requests SDG&E to add the justification of its aforementioned process to its manual (e.g., Sections 1.2, 1.5, 8, 9).

Time-Dependent Threats : Time Dependent Threats: General (TD.GEN)

21. Question Title, Corrosion, TD.GEN.CORROSION.P
ID

Question 1. Does the process require that components that can be adversely affected by corrosion be identified, and protected, or inspected and replaced?

References 193.2017(a) (193.2605(b), 193.2625(a), 193.2625(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (10/2024 version), Section 2.1 Periodic Inspection Summary mentions under "Cathodic Protection" that "any signs of corrosion... will be recorded on respective order forms and reported to a supervisor for correction". The form templates under Sections 4.3 and 4.4 capture corrosion conditions.

However, the manual does not mention whether SDG&E would have components identified for corrosion undergo corrosion protection measures per §193.2625(a) (e.g., internal corrosion monitoring, coating/jacketing, cathodic protection), routine inspection and replacement per §193.2625(b), or a combination of both approaches based on the component type or corrosion mechanism.

SED recommends SDG&E to clarify their corrosion protection methodology per §193.2625 with regards to identified components at the Borrego LNG Facility affected by corrosion in the manual.

Training and Qualification : Operator Qualification (TQ.OQ)

22. Question Title, Training of Operations, Maintenance, and Supervisory Personnel, TQ.OQ.TRAINOM.P
ID

Question 9. Does the plan require that operations, maintenance, and supervisory personnel receive the mandatory initial training?

References 193.2017(a) (193.2713(a))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 7 Training, states employees who will be dispatched and directly handle equipment at the Borrego Springs LNG Facility will receive Gas Operations training, Hazcom, and review Material Safety Data Sheets (MSDS). Section 7.1 Initial Training states all Pipeline Operations personnel from the Gas Operations Department assigned to work at the facility will receive training.

§193.2713(a) states:

"Each operator shall provide and implement a written plan of initial training to instruct—

(1) All permanent maintenance, operating, and supervisory personnel—

(i) About the characteristics and hazards of LNG and other flammable fluids used or handled at the facility, including, with regard to LNG, low temperatures, flammability of mixtures with air, odorless vapor, boiloff characteristics, and reaction to water and water spray;

(ii) About the potential hazards involved in operating and maintenance activities; and

(iii) To carry out aspects of the operating and maintenance procedures under §§ 193.2503 and 193.2605 that relate to their assigned functions; and

(2) All personnel—

(i) To carry out the emergency procedures under § 193.2509 that relate to their assigned functions; and

(ii) To give first-aid; and

(3) All operating and appropriate supervisory personnel—

(i) To understand detailed instructions on the facility operations, including controls, functions, and operating procedures; and

(ii) To understand the LNG transfer procedures provided under § 193.2513."

§193.2713(a)(1) and (a)(3) expands training requirements to include all supervisory personnel. §193.2713(a)(2) requires all personnel to receive training on emergency procedures and first aid.

During the inspection, SED discussed with SDG&E personnel and confirmed that supervisory and engineering personnel along with its operation and maintenance personnel associated with the Borrego Springs LNG Facility receive the mandatory initial training. However, the manual does not mention this training requirement extends to supervisory and engineering personnel.

SED recommends SDG&E revise its manual to reflect its existing training requirements for its supervisory and engineering staff per §193.2713(a).

23. Question Title, Retraining of Operations, Maintenance, and Supervisory Personnel, TQ.OQ.RETRAINOM.P
ID

Question 11. Does the plan require that operations, maintenance, and supervisory personnel receive refresher training at intervals not to exceed two years?

References 193.2017(a) (193.2713(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 7.2 Refresher Training, states employees who are trained in operations and maintenance of the LNG facility must complete refresher training at intervals not to exceed two years. However, it does not mention training for supervisory or engineering personnel.

§193.2713(b) states:

> *"A written plan of continuing instruction must be conducted at intervals of not more than two years to keep all personnel current on the knowledge and skills they gained in the program of initial instruction."*

During the inspection, discussions with SDG&E personnel confirmed that supervisory and engineering personnel along with its operation and maintenance personnel associated with the Borrego Springs LNG Facility undergo refresher training. However, the manual does not mention this training requirement extends to supervisory and engineering personnel.

SED recommends SDG&E revise its manual to include refresher training for its supervisory and engineering staff per §193.2713(b).

24. Question Title, Training of Security Personnel, TQ.OQ.TRAINSECURITY.P ID

Question 13. Does the plan require that security personnel receive the mandatory initial training?

References 193.2017(a) (193.2715(a))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 1.6 states the Corporate Security Operations Center (CSOC) personnel monitor the LNG facility for any security issues. However, the manual did not mention whether their training would include familiarization with basic plant operations and emergency procedures per §193.2715(a)(3).

§193.2715(a)(3) states:

"(a) Personnel responsible for security at an LNG plant must be trained in accordance with a written plan of initial instruction to:

> *(3) Be familiar with basic plant operations and emergency procedures, as necessary to effectively perform their assigned duties"*

On 1/6/2025, SDG&E clarified in its response to DR-33 that per Section 5, CSOC would be responsible for contacting the appropriate personnel listed in Section 5 during an emergency response. Per an example training record, CSOC personnel take training module GDUTS720, GDUTS721, and SFUGN075. The first two relate to LNG plant operations while the last refers to safety meetings. SED recommends SDG&E to revise its Borrego LNG Facility O&M Manual to include the above responsibility and training modules to describe CSOC's responsibilities and training per §193.2715(a)(3). In addition, SED recommends SDG&E to correct the spelling of "breech" in Section 1.6 to "breach".

25. Question Title, Retraining of Security Personnel, TQ.OQ.RETRAINSECURITY.P ID

Question 15. Does the plan require that security personnel receive refresher training at intervals not to exceed two years?

References 193.2017(a) (193.2715(b))

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 7.2 Refresher Training, states employees who are trained in operations and maintenance of the LNG facility must complete refresher training at intervals not to exceed two years. However, it does not mention refresher training for security personnel.

§193.2715(b) states:

> *" A written plan of continuing instruction must be conducted at intervals of not more than two years to keep all personnel having security duties current on the knowledge and skills they gained in the program of initial instruction."*

On 1/6/2025, SDG&E clarified in its response to DR-33 that per Section 5, CSOC would be responsible for contacting the appropriate personnel listed in Section 5 during an emergency response. Per an example training record, CSOC personnel take training module GDUTS720, GDUTS721, and SFUGN075.

SED recommends SDG&E revise its manual to include refresher training for its CSOC personnel per §193.2715(b).

Training and Qualification : Training of Personnel (TQ.TR)

26. Question Title, Training Fire Protection Personnel, TQ.TR.TRAINFIREPROT.P ID

Question 1. Does the plan require that operations, maintenance, and supervisory personnel receive initial fire protection training that meets the requirements of 193.2717(a)?

References 193.2017(a) (193.2717(a), 193.2717(c), 193.2801)

Assets Covered Borrego Springs LNG (87076 (45))

Issue Summary SDG&E's Borrego LNG Facility O&M Manual (11/2024 version), Section 5.2 states Gas Operations will annually offer to meet with the Borrego Springs Fire Department for a facility review of LNG operations and safety features. Section 5.8 states fire extinguisher training is done every 2 years while an annual refresher training is also conducted. However, the manual does not mention the fundamentals of fire science and training per §193.2717(a) nor requirements to perform plant fire drills with hands-on experience per §193.2717(c).

§193.2717(a) states:

> *" All personnel involved in maintenance and operations of an LNG plant, including their immediate supervisors, must be trained according to a written plan of initial instruction, including plant fire drills, to:*
>
> *(1) Know the potential causes and areas of fire;*
>
> *(2) Know the types, sizes, and predictable consequences of fire; and*
>
> *(3) Know and be able to perform their assigned fire control duties according to the procedures established under § 193.2509 and by proper use of equipment provided under § 193.2801."*

§193.2717(c) states:

> *" Plant fire drills must provide personnel hands-on experience in carrying out their duties under the fire emergency procedures required by § 193.2509."*

SDG&E provided responses to DR-33 regarding the above topics on 12/27/2024 and 1/6/2025. SDG&E stated the required knowledge per §193.2717(a) is provided through its LNG training modules, EVUGN075, GDUTS720, GDUTS721, GDUTS722, GDUTS723, and GDUTS724. SDG&E clarified that the annual review with first responders mentioned in Section 5.2 does include a

simulated ESD alarm initial response with first responders and a verbal tabletop to cover other scenarios or conditions. Meanwhile, the "annual refresher training" is an annual hands-on training for SDG&E technicians in using fire extinguishers properly during an emergency.

SED recommends SDG&E to revise its Borrego LNG Facility O&M Manual to describe the above clarifications and details regarding the fundamental of fire science, its fire protection training and drills for its operations, maintenance, and supervisory personnel per §193.2717(a).