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Clerk of the Board
California Air Resources Board
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<http://www.arb.ca.gov/lispub/comm/bclist.php>

RE: Proposed 15-Day Modifications (October 28, 2013) – Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (September 4, 2013)

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) appreciate the opportunity to submit these written comments regarding the Proposed 15-Day Modifications to the originally proposed amendments to the Regulation for the Mandatory Reporting (MRR) of Greenhouse Gas (GHG) Emissions set forth in Attachment A of Staff Report: Initial Statement of Reasons (September 4, 2013). SoCalGas and SDG&E greatly appreciate the 15-day modifications that remove criteria and air-toxic pollutant reporting requirements and the definitions of system power. However, we have remaining issues with regard to difficulties created in implementation of the MRR that have yet to be resolved. This includes potential inconsistencies in reporting that add confusion to reporting requirements, which could make reporting overly difficult or burdensome compared to any benefit derived therein, time consuming or increase reporting cost unnecessarily. These issues are summarized and further outlined below:

1. Federal and state GHG reporting needs to be aligned based on recent revisions to the requirements.
2. The word “quality” needs to be removed from the definition of pipeline natural gas because this word has certain connotations that may not be consistent within and across other regulations and actual characteristics of natural gas being transmitted through the system.
3. The definitions for Transmission-Distribution Transfer Station, §95102(a), Measurement Accuracy Requirement, §95103(k), and Requirements for Verification Services, §95131(b)(9) need to be modified.
4. Calculations for GHG Emissions - Equipment and pipeline blowdowns §95153 (g), Section 95153 (m) Centrifugal compressor venting, Activity Data Reporting Requirements, §95157(c) including subsection 95157(c)(14)(C)(2) for reciprocating compressors needs to be modified or clarified.

1. Alignment of federal GHG reporting and California's GHG reporting: Purpose and Scope - §95100

Section §95100(c) of the Purpose and Scope in Subarticle 1 incorporates various provisions of title 40, Code of Federal Regulations, Part 98 (40 CFR 98). These provisions are a portion of the U.S. Environmental Protection Agency (U.S. EPA) Final Rule on Mandatory Reporting of Greenhouse Gases, but only incorporate requirements promulgated in the Federal Register through April 25, 2011. U.S. EPA has promulgated several rule revisions since this date, and California reporters required to use methodologies from 40 CFR 98 now have to follow two different versions of the federal rule. This adds burden, increasing compliance costs, and is confusing for reporters. The post April 25, 2011, U.S. EPA revisions include technical corrections to improve the quality of data and the accuracy of emission estimates. If adopted, the proposed MRR referencing an older version of the federal rule will result in less accurate GHG emissions reporting. SoCalGas and SDG&E request that the California Air Resources Board (ARB) MRR amendments reference the most current version of the U.S. EPA rule. Further, we request that ARB provide reasons and guidance regarding why ARB is not incorporating the post April 25, 2011, revisions to 40 CFR 98. SoCalGas and SDG&E believe that these proposed MRR amendments provide the best opportunity to reconcile the state and federal rules, thus reducing confusion and reporting burden.

2. Pipeline Quality Natural Gas Definition - §95102(a)

SoCalGas and SDG&E have previously provided written comments regarding the definition of "Pipeline Quality Natural Gas" and its application within the regulation. While some of our concerns have been addressed, issues remain that we feel require additional consideration.

In MRR Section 95102, Definitions, the use of the word *quality* in the definition of "Pipeline Quality Natural Gas" is used to define a default range for energy content (British thermal Unit – BTU), which determines the methodology for MRR emissions calculation. SoCalGas and SDG&E request the word *quality* be eliminated from the definition of pipeline natural gas to avoid the issues discussed below. Such a change would not affect the meaning or function of the term within the MRR.

SoCalGas and SDG&E request the removal of the word *quality* because it implies a standard or grade having an intrinsic value, characteristic or feature. The word *quality* often implies excellence or grade and conveys a positive connotation, whereas anything not labeled with the word *quality* creates a negative connotation. The use of the word *quality* in the definition of pipeline natural gas may create concern for natural gas customers whose purchased natural gas falls outside of the specified default range in the MRR definition. Because of the MRR definition's implication of *quality*, a customer may think their purchased gas is not *quality* natural gas, despite the fact it meets the California Public Utility Commission's (CPUC) natural gas specifications.

The CPUC establishes natural gas specifications to which California's utilities must adhere for purposes of receiving, transporting, and delivering natural gas to their customers. Because the CPUC has overall State jurisdiction over natural-gas quality issues, ARB should remove the

word *quality* from the definition of pipeline natural gas or choose a different term to define the default range for calculation purposes under MRR to avoid the impression that ARB is asserting authority over the CPUC on natural gas quality issues.

Additionally, SoCalGas and SDG&E remain concerned that the definition of pipeline natural gas states that *pipeline quality natural gas* contains at least *ninety percent* methane by volume, and request that this be changed to align with the CPUC specification for methane content. The CPUC has exclusive jurisdiction over the quality and composition of natural gas delivered to utility customers in California. The methane content of at least *ninety percent* methane by volume is in conflict with CPUC's gas specifications that state pipeline natural gas be at least *eighty percent* methane by volume. While the CPUC requires natural gas utilities to provide the BTU content of customer's purchased gas, there is not a similar requirement for methane content. Further, we understand that the methane content portion of the definition for pipeline natural gas originated with U.S. EPA). U.S. EPA wrote this definition decades ago and it has not been changed to take into account the fact that our nation's domestic natural gas production, including California production, may have lower methane content than ninety percent by volume but a higher overall energy content. We believe that the at least ninety percent methane content in the MRR definition of pipeline natural gas has an insignificant effect on the statewide GHG emission inventory, especially considering that methane has a higher GHG warming potential than the carbon dioxide produced from combustion of natural gas. Thus, lower methane content gas may produce overall lower GHGs than gas with a higher methane content.

SoCalGas and SDG&E urge ARB to make the suggested changes below (shown in red highlight and strikeout) to the definitions in the MRR amendments.

Suggested Language Modifications - §95102

Section 95102(a)(296) "Natural gas" means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth's surface, of which its constituents include methane, heavier hydrocarbons, and carbon dioxide. Natural gas may be ~~for~~ field ~~use quality (which varies widely)~~ or pipeline ~~quality natural gas~~. For the purposes of this article, the definition of natural gas includes similarly constituted fuels such as field production gas, process gas, and fuel gas.

Section 95102(a)(338) "Pipeline ~~quality~~ natural gas" means, for the purpose of calculating emissions under this article, natural gas ~~meeting specifications for natural gas having a high heat value as defined by the California Public Utilities Commission (CPUC). greater than 970 Btu/scf and equal to or less than 1,100 Btu/scf, and which is at least ninety percent methane by volume, and which is less than five percent carbon dioxide by volume.~~

Section 95102(a)(464) "Transmission pipeline" means a high pressure cross country pipeline transporting sellable ~~quality~~ natural gas from production or natural gas processing to natural gas distribution pressure let-down, metering, regulating stations where the natural gas is typically odorized before delivery to customers.

3.a. Transmission-distribution transfer station Definition - §95102(a)

The definition for “Transmission-distribution (T-D) transfer station” in §95102(a)(463) is as follows:

“Transmission-distribution (T-D) transfer station” means a Federal Energy Regulatory Commission rate-regulated Interstate pipeline, or a pipeline that falls under the “Hinshaw Exemption” as referenced in section 1(c) of the Natural Gas Act, 15 U.S.C. 717-717 (w)(1994).”

This appears to be the same as the definition for “transmission pipeline” in 40 CFR 98 Subpart W (see 40 CFR §98.238). We believe the intent was to use the definition in 40 CFR 98 Subpart W for Transmission-distribution (T-D) transfer station, which is as follows:

“Transmission-distribution (T-D) transfer station means a metering-regulating station where a local distribution company takes part or all of the natural gas from a transmission pipeline and puts it into a distribution pipeline.”

If this is not the case, please explain or provide the correct definition.

3.b. Measurement Accuracy Requirement - §95103(k)

SDG&E and SoCalGas find some of the field accuracy assessment requirements in §95103(k)(6) excessive when applied to natural gas utilities. As regulated California utilities, SoCalGas and SDG&E have adhered for decades to strict CPUC measurement standards with more stringent accuracy intervals than those in the MRR. Based on our gas standards covering field meter accuracy tests that assure compliance with CPUC orders, and an audit services department that evaluates internal controls including review of system-wide gas measurement records, we believe additional exemptions should be afforded to California’s regulated utilities. Specifically, the requirement [95103(k)(6)(A)(1)(b)] to photograph both sides of the primary element (such as an orifice plate) of pressure differential devices is unnecessary. We request this requirement be eliminated for measurement flow devices operated and maintained by natural gas utilities.

3.c. Requirements for Verification Services - §95131(b)(9)

SoCalGas and SDG&E have concerns that verifiers are afforded too much power to dictate what actions must be taken regarding fixing all correctable errors, specifically under section 95131(b)(9). One of our verifier’s insisted that staff correct every single error including one as small as resulting in a change of approximately one metric ton, which constituted a very small fraction of a percent of the total reported emissions. Staff was also directed to correct an emission factor that was not used for reporting purposes. Hours were spent on this exercise because no one wants to risk any type of negative reaction from a verifier who wields the power of a positive verification statement.

Suggested Language Modifications

We request that language be modified in 95131(b)(9) as suggested below (shown in red highlight and strikeout):

Section 95131(b)(9) Emissions Data Report Modifications. As a result of data checks by the verification team and prior to completion of a verification statement(s), giving the covered entity at least two weeks' notice prior to the verification deadline, the reporting entity ~~must~~ shall attempt to fix all correctable errors that result ~~in a one percent or greater change in~~ covered emissions, non-covered emissions, or covered product data in the submitted emissions data report. The covered entity shall, ~~and~~ submit a revised emissions data report to ARB. Failure to do so will result in an adverse verification statement. Failure to make a reasonable effort to fix correctable errors that do not affect covered emissions, non-covered emissions, or covered product data ~~represents a non-conformance with this article but~~ does not, absent other errors, result in an adverse verification statement. The reporting entity shall maintain documentation to support any revisions made to the initial emissions data report. Documentation for all emissions data report submittals shall be retained by the reporting entity for ten years pursuant to section 95105.

The verification team shall use judicious professional judgment in the determination of correctable errors as defined in section 95102(a), including whether differences are not errors but result from truncation or rounding or averaging.

The verification team must document the source of any difference identified, including their professional judgment as to whether the difference results in a correctable error.

3.c. Requirements for Verification Services - §95131(e)

Section 95131(e) makes identification of an error a trigger for re-verification within 90 days by a different verification body. SoCal Gas and SDG&E appreciate the added language that provides ARB the ability to not require a full set-aside of emissions for minor errors. Additionally we request the ability to appeal an ARB audit finding that a verification statement failed, to the extent that the failure was due to circumstances beyond the reporting entity's reasonable control. To minimize ARB workload impact, these appeals could be handled through the regional district hearing boards.

Suggested Language Modifications

We request that language be modified in 95131(e) as suggested below in (shown in red highlight and strikeout):

Section 95131(e) If the Executive Officer finds a high level of conflict of interest existed between a verification body and a reporting entity, an error is identified, or an emissions data report that received a positive or qualified positive verification statement fails an ARB audit, the Executive Officer may set aside the positive or qualified positive verification statement issued by the verification body, and require the reporting entity to have the emissions data report re-verified

by a different verification body within 90 days. This paragraph applies to verification statements for emissions and product data. In instances where an error to an emissions data report is identified and determined by ARB to not affect the emissions or covered product data, the change may be made without a set aside of the positive or qualified positive verification statement. A reporting entity may appeal an ARB audit finding that a verification statement failed through a regional district hearing board. The hearing board will determine whether the verification failure was due to circumstances beyond the reporting entity's reasonable control. The appeal petition must be filed within 30 days of the negative ARB audit, with a hearing scheduled 30 days after the petition is filed. While the appeal is pending, the 90 day clock to obtain a new verification is to be stayed pending the outcome of the appeal.

4.a. Calculating GHG Emissions - Equipment and pipeline blowdowns §95153 (g)

SoCalGas and SDG&E's distribution departments are required to report GHG emissions from equipment and pipeline blow downs under §95153(g). However, U.S. EPA 40 CFR 98 limits the reportable blow down volumes to fifty cubic feet and greater, while ARB's MRR has no minimis reporting volumes. Having no de minimus volume is difficult for all segments and for our distribution organization it theoretically includes the blow down of very small, very low-pressure services and other small low-pressure equipment. Historically these equipment have been considered to have de minimis emissions; thus these blow downs activities are not currently recorded. It is not cost effective to estimate such small activities on an individual basis. SoCalGas and SDG&E request that the MRR include the U.S. EPA rule minimum reporting volume of 50 cubic feet.

4.b. Calculating GHG Emissions - §95153 (m)

Section 95153 (m) Centrifugal compressor venting delineates how one must calculate annual emissions of methane, carbon dioxide and nitrous oxide (when flared) from both wet seal and dry seal centrifugal compressor vents. Section 951539 (m)(6) applies to centrifugal compressors with a rated horsepower (hp) less than 250 hp and requires the use of Equation 22. The specified emission factors for methane (12,000,000 standard cubic feet per year per compressor) and carbon dioxide 530,000 standard cubic feet per year in Equation 22 are not appropriate for estimating emissions from dry seal compressors. The emission factors in Equation 22 match those in 40 CFR 98.233 (o) (7) for centrifugal compressor wet seal oil degassing vents and are not at all applicable to dry seals. Additionally, these emission factors appear to be based on 24-7, 365 days per year operation or 8,760 hours per year. It is more appropriate to use an emission factor that has a time factor for actual hours of operation for dry seals.

Why compressor dry seals are not comparable to centrifugal compressor wet seal oil degassing vents is very obvious when one considers the definitions in 40 CFR 98.6 of Subpart W versus those in the MRR as follows:

- Centrifugal compressor dry seals mean a series of rings around the compressor shaft where it exits the compressor case that operates mechanically under the opposing forces to prevent natural gas or CO₂ from escaping to the atmosphere. This definition is almost

identical to that in the MRR, although the word operates was changed by ARB to operate. Operates is the correct verb as it refers to “a series” which is singular and not to the plural “rings.”

- Centrifugal compressor dry seal emissions mean natural gas or CO₂ released from a dry seal vent pipe and/or the seal face around the rotating shaft where it exits one or both ends of the compressor case. This definition is left out of the MRR in its entirety. When the description of dry vent emissions is compared to the wet seal degassing vent emissions as described fully in U.S. EPA’s definition below, the questionability of why emissions from wet seal and dry seal centrifugal compressors are calculated identically is apparent.
- Centrifugal compressor wet seal degassing vent emissions means emissions that occur when the high pressure oil barriers for centrifugal compressors are depressurized to release absorbed natural gas or CO₂. High-pressure oil is used as a barrier against escaping gas in centrifugal compressor shafts. Very little gas escapes through the oil barrier, but under high pressure, considerably more gas is absorbed by the oil. The seal oil is purged of the absorbed gas (using heaters, flash tank, and degassing techniques) and recirculated. The separated gas is commonly vented to the atmosphere. The last three sentences have been left off the MRR definition masking the stark differences between dry seal and wet seal compressor emissions.

Dry seal compressor vents have much lower emissions than wet seal compressor degassing vents, and the emissions should not be calculated using the same emission factors. Doing so adopts a technically flawed methodology that does not reflect the major difference in how emissions from these two types of seals actually occur. Please see Attachment 1, U.S. EPA Lessons Learned from Natural Gas STAR Partners – Replacing Wet Seals with Dry Seals in Centrifugal Compressors that describes in detail the mechanical and emissions differences between dry and wet seal compressors.

4.c. Activity Data Reporting Requirements - §95157(c)

Section 95157(c)(14)(C)(2) for reciprocating compressors in not operating, depressurized mode, a reporting entity is to report the “Facility operator emission factor for isolation valve emissions in not operating mode, depressurized mode in cubic feet per hour.” There is no calculation for a “facility operator emission factor” in §95153(n); thus, it is not clear what value is to be reported. We appreciate clarification of this issue.

SDG&E and SoCalGas appreciate the opportunity to comment on the 15-day modifications and look forward to discussing these comments with ARB Staff.

Sincerely,

Tamara Rasberry