Central Valley Gas Storage, LLC

July 18, 2016

Clerk of the Board California Air Resources Board 1001 I Street Sacramento, CA 95814

Re: Proposed Regulation Order: Subarticle 13 - Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities

The Independent Storage Providers (Central Valley Gas Storage, LLC, Gill Ranch Storage, LLC, Lodi Gas Storage, L.L.C., and Wild Goose Storage, LLC; collectively, "ISPs") operate California Public Utilities Commission ("CPUC") certified underground natural gas storage facilities in California. The wells, pipelines, compressors, and appurtenant equipment at the ISP facilities were designed to modern gas storage facility standards and have been in service since the late 1990s at the earliest, and within the last five years for the most recent facilities. All of the injection and withdrawal wells at the ISP facilities were designed and constructed specifically for the intended purpose of gas storage and are not repurposed production wells.

The ISPs have carefully reviewed the California Air Resources Board's ("ARB") Proposed Regulation Order modifying Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 13 and respectfully offer the following comments and recommendations regarding specific sections and subsections.

§ 95668 - Standards

(d) Reciprocating Natural Gas Compressors:

(4)

- (F) It appears that the section intended to be referenced in this section is 95668 (d)(4)(D) (instead of § 95688(d)(4)(D)).
- (i) Natural Gas Underground Storage Facility Well Monitoring Requirements:

(1)

(B) Daily Screening: If Storage operators elect to utilize daily screening of each natural gas injection/withdrawal wellhead assembly, this section requires screening within a 200 foot radius. The ISPs respectfully point out that this distance is twice as far as the 100 foot radius specified in the leak detection protocols the ISPs submitted to the Division of Oil, Gas and Geothermal Resources ("DOGGR") in accordance with the Requirements for Underground Gas Storage Projects Emergency Regulations ("Emergency Regulations") that recently went into effect. Leaks that cannot be detected within a 100 foot radius are highly unlikely to be detected at 200 feet from the wellhead. In addition the Emergency Regulations allow for situations where an operator can "demonstrate that some part of that area is obstructed". This section, as proposed, does not appear to take obstructions into consideration.

ISP facilities are often located in rural agricultural areas and there are practical obstacles that limit the radial distance in which an on-foot inspection may take place. Such obstacles include:

¹ Chapter 4, Subchapter 1, Article 3, §1724.9 (e)

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- An environmental buffer zone established in compliance with CPUC Environmental Conditions adjacent to the well pad area at one facility where extensive foot traffic would conflict with the intent to maintain a buffer zone for potential Giant Garter Snake habitat.
- Agricultural rice production whereby acreage within the specified radius may be flooded as part of the farming process and foot traffic is not possible.
- An irrigation canal within the specified radius where foot traffic cannot occur.

The ISPs recommend that the language in this section be modified to align with similar requirements in the Emergency Regulations to specify: 'Daily screening of each natural gas injection/withdrawal wellhead assembly, attached pipelines, and the surrounding area within a 100 200 foot radius of the wellhead assembly for leaks of natural gas, unless the operator can demonstrate that some part of that area is obstructed.'

The ISPs also note that expenditures they currently are making for continual daily screening are proving to be significant, and likely are well in excess of the environmental benefit derived from more immediate detection and repair of minor wellhead area leaks at ISP facilities. The ISPs would appreciate it if ARB would consider an approach for adjusting the frequency of such screening (perhaps to weekly), based on observed results when no leaks have been present. ARB similarly should review the cost-benefit impacts of the other requirements proposed in § 95668 (i).

- (C) Continuous Monitoring wellheads: The ISPs note that the 200 foot radius specified in this section would typically extend beyond the property owned or controlled by the storage operator and, to the extent that equipment has to be installed beyond the operator's property to comply with this provision, the ISPs may not be able to comply. Accordingly, the ISPs also recommend changing the radius to 100 feet in this case. At present, ISPs are unlikely to utilize continuous monitoring of wellhead's contemplated by this section (C) to meet the monitoring plan requirements of § 95668 (i)(1) because technology that can meet the requirements specified by this section is not currently commercially available at a cost-effective price, even when compared to the significant expense of daily screening activities. The ISPs have been testing various options available today. To date, none have been found that totally satisfy leak detection needs.
- (3) Monitoring plan: The ISPs are concerned that an implementation date of September 1, 2018 may not provide sufficient time to implement the measures prescribed by the monitoring plans to be approved in full or in part, or disapproved in full or in part, by ARB by March 1, 2018. Specifically, six months would not be enough time to incorporate "continuous monitoring of each natural gas injection/withdrawal wellhead assembly, attached pipelines, and the surrounding area" into the ISPs existing Supervisory Control And Data Acquisition (SCADA) systems. The ISPs recommend that the implementation date be specified as one year from the date that ARB communicates approval the plan to the operator.
- (6) ARB notification: There appears to be a typographical error in the first line of the first sentence of this paragraph ("is" should be "a"). This paragraph also contains a reference to a 200 foot radius and here also the ISPs recommend changing it to a 100 foot radius, for the reasons set forth above.

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In addition, as ISP facilities are often located in rural agricultural areas that have naturally occurring methane sources (including rice fields), there is a strong possibility of "baseline" exceedances of 10% in instances where there is no gas leak whatsoever from storage facilities. Even an ambient methane concentration two or three times over a baseline background measurement may have nothing to do with the storage facility. This issue is magnified if an initial baseline is set at a very low level. The ISPs request that the approach contemplated by this section be modified as necessary to take this important fact into account. It is imperative that a proper baseline and exceedance level be established so that any reportable reading would clearly be due to natural gas emitted from the storage facility, and not from other methane sources. The ISPs are concerned that requiring frequent notifications to ARB, DOGGR and local air districts in non-leak situations would likely be confusing and burdensome to the agencies as well as the operators.

§ 95669 - Leak Detection and Repair

(e) Requirements under this provision appear to be duplicative of the daily or continual inspection specified in § 95668 (i)(1) (B) or (C). The ISPs recommend that language be added here clarifying that for natural gas underground storage facilities, the inspections conducted pursuant to § 95668 (i)(1) (B) or (C) satisfy this requirement as well.

§ 95672 - Reporting Requirements

(a)

- (8) For reasons stated above in the comments for § 95668 (i)(1)(B) and (C), the ISPs recommend changing the reference to a 200 foot radius to a 100 foot radius.
- (9) As discussed in the comment for § 95668 (i)(6), there is a strong possibility of baseline exceedances of 10% in instances where there are naturally occurring methane sources and there is no gas leak whatsoever from a storage facility. Accordingly, the ISPs recommend that the issue of naturally occurring methane sources, and the need to ensure a proper baseline and exceedance level to prevent activity in non-leak situations, be taken into consideration.

The ISPs continue to operate their facilities in a safe and reliable manner and in compliance with applicable laws, rules and regulations. The ISPs appreciate the opportunity to comment on this Proposed Regulation Order and respectfully request that their comments be considered as development of the regulation progresses.

Sincerely.

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