The American Gas Association (AGA) appreciates the opportunity to comment on the California Division of Oil, Gas, and Geothermal Resources (DOGGR) Discussion Draft Requirements for California Underground Gas Storage Projects, noticed on the Department of Conservation website on July 8, 2016. AGA supports DOGGR addressing the integrity of underground storage wells and reservoirs in the state of California. AGA’s comments are intended to assist DOGGR in developing requirements that are reasonable, practicable and effective in enhancing public safety.

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 72 million residential, commercial and industrial natural gas customers in the U.S., of which 95% – just under 69 million customers – receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international natural gas companies and industry associates. Today, natural gas meets more than one-fourth of the United States’ energy needs.

Safety is a core value for AGA and its members, and the natural gas industry works continuously to promote the safe, reliable, and efficient delivery of natural gas to homes and businesses across the nation. AGA and its members actively participate in the development of guidance materials that provide a resource for natural gas utilities to apply leading practices in a variety of technical areas and that promote the safe and reliable operation of the natural gas system. Two such examples are the American Petroleum Institute’s (API) Recommended Practice 1170, Design and Operation of Solution-mined Salt Caverns Used for Natural Gas Storage (API RP 1170) and API Recommended Practice 1171, Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs (API RP 1171).

I. Recently Developed Recommended Practices Have Introduced Standards for Enhanced Underground Storage Facility Integrity Management

AGA worked directly with the Interstate Natural Gas Association of America (INGAA), the American Petroleum Institute (API), state and federal regulators, technical experts, and other interested stakeholders to develop API Recommended Practices 1170 and 1171. These standards are the product of historical knowledge and experience of those who have an understanding of how underground storage facilities function. AGA encourages DOGGR to utilize the risk-informed, performance-based approaches in API RP 1171 in the finalization of their underground storage regulations. Incorporating the approaches
in API RP 1171 will be more certain to improve safety and integrity of underground storage facilities than the proposed prescriptive regulations that would impose universal requirements on all storage facilities irrespective of the unique characteristics of each storage facility.¹

API RP 1171 addresses underground storage functions related to life-cycle process safety and integrity management, using risk-informed, value-based, performance standard approaches. The RP provides guidance to operators on the design and operation of underground storage facilities while recognizing the need for case-by-case and site-specific considerations. A universal “one-size fits all” approach simply does not work due to the fundamental differences that exist between storage facilities, which is true throughout the United States and within California. A multitude of site-specific factors such as pressure, temperature, geology, product (wet/dry gas), well completion, and well components must be considered in the operation and design of underground storage facilities. Because these factors vary between facilities, a risk-based regulation that recognizes the unique characteristics of each facility is more appropriate, efficient, and effective than prescriptive regulations. AGA fully supports the use of API RP 1171.

AGA’s “Commitment to Enhancing Safety” – a statement outlining the industry’s continued commitment to improving pipeline safety through voluntary actions above and beyond federal regulations – promotes the use of API RP 1171 and the risk-based approaches detailed within. AGA provides DOGGR with the following feedback that highlights where DOGGR’s risk-based approach can be clarified and refined as well as noting where AGA believes that in many circumstances DOGGR’s proposal imposes inappropriate and unnecessary prescriptive requirements.

II. AGA Supports DOGGR’s Development of Regulations Founded in Risk Management and Encourages DOGGR to Consider Several General Principles when Finalizing the Underground Storage Regulations

AGA commends DOGGR for promoting a risk-based approach for the design, construction, maintenance, and review of underground gas storage projects and existing facilities in California. As noted above, risk-based regulations recognize the benefits of applying regulatory requirements in a manner tailored to that situation instead of one-size fits all regulations that may not adequately account for the unique characteristics of each facility. AGA supports the non-prescriptive aspects of DOGGR’s proposed requirements, but provides suggested revisions that AGA believes will further enhance the achievable safety benefits of the requirements. By clarifying regulatory requirements and expectations, as well as allowing operators to allocate their resources in a manner that enhances the safety of their particular storage project(s) and existing facilities, DOGGR will ensure that underground storage operators are able to maximize the safety benefits of the proposed requirements.

In addition to the section-specific comments that follow, AGA encourages DOGGR to consider the following general comments on the Discussion Draft.

¹ AGA does not recommend that DOGGR incorporate API RP 1170 because AGA is unaware of any solution-mined salt caverns used for natural gas storage in the state of California.
A. DOGGR should incorporate prescriptive requirements sparingly and only when justified for enhancing safety across all storage projects and existing facilities. AGA appreciates DOGGR integrating risk-based approaches for the design, construction, operation, maintenance, and review of underground gas storage projects and existing facilities. However, AGA believes much of the language included in the Discussion Draft intended to minimize threats and risk to storage facilities is unnecessarily prescriptive, which results in actions being required regardless of the circumstances and characteristics of the facility and whether they may increase the safety and integrity of the specific facility. Prescriptive regulations ultimately require all underground gas storage operators to devote resources to tasks that are strictly and uniformly required – even at facilities where the mandated tasks will not enhance safety at that particular facility – rather than to other tasks that will actually enhance the integrity and safety of projects or existing facilities. By developing regulations that are founded on performance-based principles and only prescriptively requiring actions in response to identified threats and risks, DOGGR can ensure that operators are meeting the intent of the underground storage safety requirements without reallocating and expending resources on actions that do not enhance the safety and integrity of underground storage facilities or unnecessarily impacting service reliability. AGA maintains that a well-founded, performance-based, risk-management approach that includes site-specific risk mitigation measures would be more effective than retroactively applying requirements with questionable value to existing wells or facilities.

B. Undefined expectations lead to regulatory uncertainty and provide inadequate notice and opportunity to comment on ambiguous regulatory proposals: Throughout the Discussion Draft, DOGGR has included vague qualifying terms such as "Division's discretion," "Division's satisfaction," or "acceptable to the Division." Such subjective statements provide no notice to the operator as to what is required by the regulation or expected by the regulator and invite inconsistent application and enforcement. The use of these vague terms would likely result in the regulations being inconsistently applied by each state inspector and DOGGR. AGA encourages DOGGR to clearly articulate the elements that DOGGR will consider in making its determinations and what information operators must provide so that operators can more clearly understand what is required and how it will impact the safety, operations, reliability, and economics of each underground storage facility or project. Unclear expectations also prevent stakeholders, such as AGA, from providing precise comments on the proposed requirements.

C. Natural gas storage is an integral part of the nation’s energy system and DOGGR should strive to minimize unintentional impacts that disrupt reliability and delivery and pose safety concerns: AGA is concerned that the potentially retroactive and prescriptive well construction requirements coupled with the recurring mechanical integrity tests have the potential to significantly impact system reliability and delivery. The installation and maintenance associated with some of the proposed equipment requirements within the Discussion Draft have the potential to unintentionally negatively impact system integrity and can increase the safety risk to employees that are performing this work. Furthermore, to perform some of these prescriptively required tests, operators would have to remove the wells from service, ultimately impacting the reliability of the natural gas system in the operator’s service territory. AGA strongly encourages DOGGR to consider these potential impacts to employee safety, natural gas deliverability, and well reliability.
D. **The Discussion Draft should clearly differentiate requirements for new wells versus those for existing wells and, if necessary, should define compliance timelines for requirements that are retroactive:** The Discussion Draft does not clearly differentiate which requirements would apply to existing underground gas storage facilities and which would apply to new projects. One such example is the reference in §1726.3(a)(1) to “bringing wells into conformance” for the Well Construction Requirements (§1726.5). If these requirements apply to existing wells that have been designed and constructed in accordance with requirements in existence at that time, it is unclear how the regulations are to be implemented and the timeframe for that implementation.

Another example of regulatory uncertainty exists in §1726.4 *Underground Storage Project Data Requirements*, which appears to be only applicable to proposed underground gas storage projects, as it includes data requirements such as the “proposed water disposal method” and the “statement of the primary purpose of the project.” However, DOGGR does not explicitly state that the submission requirements §1726.4 are only applicable for new underground storage projects.

DOGGR should review the Discussion Draft and explicitly specify which requirements are applicable to existing underground gas storage facilities and which are applicable to new projects. Furthermore, if DOGGR intends to retroactively impose well construction requirements on all existing underground gas storage facilities, DOGGR must recognize that compliance cannot be instantaneous, that an appropriate compliance period must be provided, and that storage facilities must be able to continue to operate in the interim to ensure natural gas reliability.

E. **DOGGR should align with anticipated Federal regulatory initiatives:** AGA appreciates DOGGR’s intent to continue to consult with the “National Laboratories, operators, other state and federal regulatory agencies, and other interest groups in the development of these regulations.” See DOGGR Notice of Public Workshops and Notice of Public Comment Period, at 1. AGA thinks it is imperative that this consultation recognize the imminence of federal minimum safety standards for natural gas storage facilities.

In the recently enacted Protecting our Infrastructure of Pipelines and Enhancing Safety Act (PIPES Act), Congress instructed PHMSA to issue minimal safety standards for underground storage facilities by June 2018. These standards are to take into account the recommendations of the Aliso Canyon natural gas leak task force, a task force established by the PIPES Act and which has yet to make recommendations. A state’s authority to regulate underground natural gas storage facilities was limited to standards “compatible” with any federal minimum safety standards. Given that PHMSA has yet to issue federal minimum safety standards, AGA believes it is premature for DOGGR to impose such standards. If DOGGR continues to pursue separate advance regulatory requirements, DOGGR risks these requirements being incompatible with the federal standards and imposing inconsistent and ultimately preempted requirements on operators.

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F. New regulatory requirements will impact California consumers: For natural gas utilities operating these storage facilities, where approved by the California Public Utilities Commission, the costs of complying with these new regulations will ultimately be borne by natural gas customers. As such, DOGGR should ensure that any final regulation reflects a balance between the multitude of competing factors, including continuity of service, underground storage field safety improvements, and additional costs borne by the utility’s customers.

III. AGA Encourages DOGGR to Consider Specific Enhancements and Modifications to their Proposed Regulation

AGA provides the following detailed comments on specific aspects of the Discussion Draft, which AGA believes will clarify the applicability of the requirements, and will help ensure that the final regulation has a meaningful impact on underground storage facility safety.

A. Definitions (§1726.1.)

AGA believes there are two areas of concern applicable to §1726.1 Definitions: terms used through the Discussion Draft that are undefined and terms that require further clarification.

Terms that Are Not Defined

To improve regulatory certainty, AGA encourages DOGGR to define several terms that are currently not defined. Without definitions of these key terms, operators and state inspectors will need to make their own interpretations of what is meant by each word. Below are some of these terms:

- Supervisor: This term appears in §1726.4(a), §1726.4(a)(8), §1726.7(a), and §1726.7(c). AGA understands that this is defined in the offshore well §1741 as the “State Oil and Gas Supervisor;” however, this has not been defined in the onshore well section. AGA recommends that DOGGR incorporate this definition into §1726.

- Observation Well: This term appears in §1726.3(a)(9), §1726.7(a)(1), and §1726.7(a)(2). API RP 1171 defines Observation well as a “well that functions as a pressure and fluid monitoring point, located within, above or below, or laterally adjacent to the active storage reservoir, and generally not used to inject or withdraw storage gas.” AGA suggests that DOGGR include this definition.

- Area of Review: This term is defined both as “surrounding areas that may be subject to the [reservoir’s] influence” as well as “delineated by the geologic extent of the reservoir.” AGA would like to note that this definition is internally inconsistent, and needs to be further clarified. AGA recommends DOGGR adopt the consistent definition of “the geological extent of the reservoir” as it appropriately defines the Area of Review in reference to this regulation.

Terms that Need Clarification

The term “underground gas storage project” is not a commonly used industry term. For clarification, AGA suggests that the term “project” be used only for new projects that have not yet been completed and the term “facility” be used for projects that have been completed and are in service. These terms are used as described throughout these comments.
B. Risk Management Plans (§1726.3)

AGA appreciates many of the risk-based approaches and concepts found within DOGGR’s proposed Risk Management Plans. AGA offers the following suggestions that AGA believes will aid in clarifying DOGGR’s expectations with the proposed requirements.

**Timeframe, Process, and Applicability**

As previously mentioned, §1726.3(a)(1) states that if storage wells are not in conformance with the requirements of proposed §1726.5, then “the Risk Management Plan shall include a work plan for either bringing the wells into conformance or phasing the wells out of use.” AGA is concerned that through this statement, DOGGR is retroactively imposing Well Construction Requirements (§1726.5) on existing wells. If that is the case, AGA believes that additional consideration is warranted as to the feasibility of bringing these wells into conformance and the resulting impact on reliability and the delivery of natural gas. Additionally, if §1726.3(a)(1) is incorporating existing wells into the requirements of §1726.5, then a timeframe for compliance should be included. Ultimately, AGA strongly recommends that DOGGR consider an alternate approach other than the retroactive application of prescriptive construction requirements on existing wells that is performance-based and includes site-specific risk mitigation measures.

Furthermore, generally the Discussion Draft does not establish a process or timeframe for DOGGR’s review, response, or approval of an operator’s Risk Management Plan. AGA recommends that DOGGR clarify when the plan is to be submitted to DOGGR, and DOGGR’s process and timeframe for review and approval.

**Surface and/or Subsurface Automatic or Remote-Actuated Safety Valves**

AGA notes that DOGGR has expanded the list of risk assessment criteria for the evaluation of the need for surface and/or subsurface automatic or remote-actuated safety valves beyond those included in API RP 1171. DOGGR has added: (1) age of well, (2) proximity to environmentally or culturally sensitive areas, (3) risks of well sabotage, and (4) evaluation of geological hazards such as seismicity, active faults, landslides, subsidence, and potential for tsunamis. AGA understands DOGGR’s expansion of the criteria is intended to incorporate those that are relevant risks factors, but believes that the “age of well” criterion has no correlation or impact to well condition, which is more dependent on other factors. By including this criterion as relative to the safety valve consideration, AGA is concerned that DOGGR is placing unjustified emphasis on a factor that has not been proven to correlate with the risks to the well. AGA is also concerned with DOGGR’s inclusion of the proximity to “environmentally or culturally sensitive areas” in consideration of the need for an emergency shutdown valve. DOGGR has not explained what is meant by a sensitive area, including how the consideration would be different from any consideration undertaken under proposed §1726.3(a)(2)(J), “the current and predicted development of the surrounding area, topography and regional drainage systems and environmental considerations.” Any criterion that is included will result in operators being required to justify how it was considered in determining the need for an emergency shutdown valve regardless of whether the criterion has a place in the risk analysis or not.
Security of Information

In §1726.3(b) on the availability of Risk Management Plans and their updates, DOGGR states that “the Division will segregate the confidential records and only provide them if the California Public Utilities Commission has agreed to treat the records as confidential.” AGA is concerned that although information submitted may not be confidential, the information in the aggregate may pose a risk to the security of these facilities. AGA requests that DOGGR consider the sensitive nature of this information, especially in the aggregate, and manage the information appropriately.

C. Underground Gas Storage Project Data Requirements (§1726.4)

In §1726.4, DOGGR expands upon the submitted data required for all underground gas storage projects. As previously discussed, AGA urges DOGGR to clearly narrow the applicability of this section to new underground storage projects. If DOGGR intends for certain data requirements to be applicable to only new underground storage projects with the remaining data requirements applicable to all underground storage facilities, DOGGR should clearly differentiate the requirements.

Timeframe and Frequency of Data Collection

AGA also has concerns about the timeframe for submission of the data requests within §1726.4. DOGGR proposes that operators shall provide “any data that, in the judgment of the Supervisor, are pertinent and necessary for the proper evaluation of the proposed project.” However, this does not specify under what timeframe and frequency this data shall be submitted and if the timeframes and frequencies are the same or different for existing storage facilities and proposed projects. AGA suggests that DOGGR set a reasonable timeframe for data to be submitted for existing storage facilities, if any, and proposed projects to meet the regulatory requirements.

Plugging Inactive Wells

The proposed requirement within §1726.4(a)(5)(F)(ii) states that “wells that have been inactive for more than two years shall have cement plugs across all hydrocarbon zones.” AGA would like to note that there are a number of reasons why wells may be temporarily inactive for more than two years, including variations in seasonal demand or facility maintenance. However, the lack of use of these wells in no way represents a risk to the underground storage facility. Thus AGA strongly disagrees with this requirement and believes it is inappropriate. AGA recommends that operators perform a risk assessment when determining the most appropriate timeframe to plug a well, which would be included as part of the Risk Management Plan to be approved by the Division. AGA recognizes that wells that have not been plugged would be subject to DOGGR’s regulatory requirements for active facilities.

D. Well Construction Requirements (§1726.5)

Although AGA appreciates that proposed §1726.5(a) adopts a risk-based approach to well construction, AGA is concerned that DOGGR has coupled the risk-based approach in §1726.5(a) with a prescriptive list of requirements in proposed §1726.5(b). AGA offers DOGGR the following comments on the application of these proposed well construction requirements.

Application to Existing Wells

As discussed in previous sections of these comments, AGA is concerned with the unclear application of these proposed requirements on existing wells. AGA does not support the retroactive applicability of
these requirements on existing underground storage wells. If it is DOGGR’s intent to retroactively apply these requirements, they should consider the feasibility and practicability of retrofitting existing wells with the proposed criteria. In addition, AGA encourages DOGGR to provide additional guidance on how an operator would demonstrate to DOGGR’s “satisfaction” that an existing well effectively adheres to the performance standard and what interim actions an operator should take. Finally, DOGGR should recognize that even if existing wells can be retrofitted, such actions cannot be accomplished overnight and operators will need time to implement these changes.

**Single Point of Failure**

Proposed §1726.5(a) states that the “operator shall ensure that a single point of failure does not pose an immediate threat of loss of control...” AGA believes this regulatory language could be read as requiring operators to construct a well in a manner that ensures that there is no potential for a single point of failure to pose an immediate threat. This requirement is impracticable in a real world environment and misses the intent of mitigating a risk of failure. AGA recommends this language be revised as, “the operator shall take a risk-based approach to mitigate the risk of a single point of failure posing loss of control...” Utilizing a risk-based approach will determine when it is most appropriate to create redundancies in well containment or employ other measures to mitigate the threat.

**Primary and Secondary Well Barriers**

In §1726.5(b)(1)(A) DOGGR suggests that the primary mechanical barrier is comprised of three specific elements: production casing, tubing and packer, and a surface controlled subsurface safety valve (SCSSV) or Christmas tree valve. AGA would like to note that most operators consider casing to be the primary barrier by itself. AGA also notes that many of the existing injection and withdrawal (I/W) wells in California are not designed for flow through tubing only, therefore making this requirement unfounded. In essence, DOGGR is requiring that gas storage operators retrofit existing wells with tubing and packer, which will impact deliverability and require more well workovers. This may in turn require the drilling of more I/W wells to replace deliverability loss. AGA suggests that operators use a risk-based approach when determining the most appropriate components to include in the well barrier construction.

The proposed surface and/or subsurface automatic or remote-actuated safety valve requirement, in §1726.5(b)(1)(A)(iii), appears to be intended for the purpose of serving as a “primary mechanical barrier.” The valve is normally in an open position and thus is not a barrier. In its closed position, it prevents flow downstream but provides no protection upstream of the valve. AGA would like to note that in some cases the use of these valves may actually increase risks.

**E. Mechanical Integrity Testing (§1726.6)**

DOGGR has significantly expanded the requirement for minimum mechanical integrity testing. AGA has specific technical concerns with a few of the proposed requirements.

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Clarification for Mechanical Integrity Tests

AGA cautions DOGGR that some of the equipment that the Discussion Draft requires through §1726.5 Well Construction Requirements would need to be removed from the well for the operator to perform the requirements within §1726.6 Mechanical Integrity Testing. For example, pressure tests, casing wall thickness inspections, and the use of temperature and noise logs, would require the removal of valves and/or other wellhead equipment. Removing this required equipment adds significant time to perform these tests and could damage the equipment – damage that may not be realized until the well is put back into service and even then may not be realized immediately. Far more importantly, removing the required equipment could impact system integrity and increase the safety risks to employees performing the work and to the public. Further, because operators must take wells completely out of service in order to perform the tests, the frequency of mechanical integrity testing alone may impact the reliability and delivery of natural gas. In addition, if §1726.5 applies to existing wells, DOGGR must recognize that compliance cannot be instantaneous and that storage facilities must be able to continue to operate in the interim to ensure natural gas reliability.

The Mechanical Testing requirements prescribe at a minimum that operators utilize three different mechanical integrity tests: 1) a temperature and noise log test at least annually; 2) a casing wall thickness inspection test at least every two years; 3) a pressure test at least every two years. AGA would like to note that requiring these three types of tests is unnecessarily prescriptive and redundant. For example, both temperature and noise log tests and pressure tests are tools used to diagnose existing leaks, and AGA does not believe that it is necessary to require both tests to be performed consecutively. AGA would like to note that there are other types of tests that operators may opt to use (e.g., gamma-ray/neutron logs)4. In addition, operators often utilize third-party services when conducting these tests and there may be market constraints on the current availability of the tools needed to conduct these tests. AGA recommends that the identification of the most appropriate methods for diagnosing existing leaks or potential future leaks be part of a comprehensive operator risk management plan and not be prescribed by DOGGR.

The requirement for casing wall thickness inspections, §1726.6(a)(2), states that a well shall be remediated and not be used for injection or withdrawal without subsequent approval of the Division, “if the casing wall thickness inspection indicate that within the next 24 months thinning of the casing will diminish the casing’s ability to contain the well’s maximum allowable operating pressure.” AGA believes that the 24-month period is arbitrary and not justified by substantial evidence. Therefore, AGA recommends that DOGGR revise this sentence to “if the casing wall thickness inspection indicates that the casing does not have the ability to contain the well’s maximum operating pressure, then the well shall be remediated and shall not be used for injection or withdrawal prior to the well demonstrating mechanical integrity.”

Additionally, §1726.6(a)(3) requires a pressure test of at least as high as 115 percent of the maximum operating pressure. This could have unintended consequences and may create leak paths through packer

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or wellhead seals, even though the casing is intact. To avoid unintended consequences, AGA recommends that casing testing and commissioning follow the recommended practices in API RP 1171 Section 6.9.1 for newly completed wells and ISO 16530 for existing wells.

Lastly, AGA suggests that DOGGR clarify under what timeframe anomalies should be “immediately reported” as referenced in §1726.6(a)(1) for temperature and noise log anomalies.

**Frequency of Mechanical Integrity Tests**

AGA would like to note that the timeframe being required for the different integrity tests is excessively prescriptive. There is no incremental risk mitigation benefit or technical basis for running these tests with such frequency. Given the other requirements proposed by DOGGR, each testing regimen will require a full well workover, which includes well-shutdown and removal of internal well equipment, such as packer. An unintended consequence of this downtime is the impact to the reliability and delivery of natural gas. AGA recommends that DOGGR consider these potential impacts, and recommends that the frequency of testing be based on an assessment of the risks and a history of assessments for each well, instead of prescriptive and unnecessary timeframes for every well.

**F. Monitoring Requirements (§1726.7)**

DOGGR has proposed that if the California Air Resources Board (ARB) adopts and implements regulations for inspection and leak detection, then the ARB regulations would apply in lieu of this “subdivision.” Initially, AGA requests that DOGGR specify which specific provisions would no longer apply. Moreover, AGA believes ARB’s proposed regulations to be technically infeasible and would unreasonably differ from established regulatory practices. Ultimately, AGA believes that the ARB proposal would increase utility customer costs without improving environmental outcomes and that the ARB rulemaking is premature given the imminent federal regulations that will be issued by PHMSA. AGA’s concerns with the ARB proposal are detailed in its comments to ARB. AGA recommends that DOGGR remove the reference to ARB’s inspection and leak detection protocol and instead allow operators to submit an inspection and leak detection protocol based on API RP 1171.

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AGA appreciates the opportunity to comment to DOGGR on this Discussion Draft for underground storage regulations in California during this “pre-rulemaking” phase and looks forward to continued discussions.

Respectfully submitted,

Date: August 22, 2016

By:

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August 18, 2016

American Gas Association
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Dear Ms. Sames:

The Southern Gas Association Underground Storage Committee (SGA USC) appreciates the opportunity to support the AGA comments to the California Division of Oil, Gas, and Geothermal Resources (DOGGR) Discussion Draft Requirements for California Underground Gas Storage Projects. These draft requirements were noticed on the Department of Conservation website on July 8, 2016. The SGA USC supports the American Gas Association’s (AGA) efforts to assist the DOGGR in developing a regulation that is effective in maintaining and enhancing public safety as well as being practicable and reasonable for operators of underground storage facilities to implement.

SGA and its members are committed to the safe, reliable and efficient delivery of natural gas to residential, commercial and industrial customers across the nation. As part of that commitment, the SGA USC concurs with the AGA position in fully supporting the use of the American Petroleum Institute’s (API) Recommended Practice 1170, Design and Operation of Solution-mined Salt Caverns Used for Natural Gas Storage (API RP 1170) and API Recommended Practice 1171, Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs (API RP 1171) as guidance materials. The SGA USC further concurs with AGA that those Recommended Practices (RP), are the product of historical knowledge and experience of those who have an understanding of how underground storage facilities function and that they promote safety by providing guidance to operators on the design and operation of underground storage facilities while recognizing the need for case-by-case and site-specific considerations. The SGA USC advocates reliance upon the risk based approach detailed within API RP 1170 and 1171 and promoted by DOGGR in lieu of overly prescriptive regulations that impose universal requirements which do not take into account the diversity of storage facilities. Storage well design, well construction, material specifications and operational parameters all vary significantly based upon geologic characteristics, pressure, temperature and fluid composition making it impossible to promote universal prescriptive regulatory requirements.

The SGA USC accepts that DOGGR’s proposed §1726.3 Risk Management Plans, §1726.4 Underground Gas Storage Project Data Requirements, §1726.5 Well Construction Requirements, and §1726.6 Mechanical Integrity Testing recognize the benefits of risk-based regulations. However, SGA USC concurs with the AGA position that some clarification of regulatory requirements and expectations would be beneficial and that incorporation of a mechanism to allow operators to allocate their resources in a manner that enhances the safety of their particular storage project(s) is necessary. The SGA USC agrees
in entirety with the general and detailed comments offered by AGA to the Discussion Draft and encourages DOGGR to give those comments careful consideration.

SGA USC fully concurs with the AGA recommendation that DOGGR consider the potential impacts highlighted in these comments, and the recommendation that the frequency of testing be based on an assessment of the risks and a history of assessments for each well, instead of mandating prescriptive and unnecessary timeframes and actions for every well. Wellbore entry inherently involves some element of risk. Frequency of testing and inspection based upon prescriptive requirements potentially introduces unnecessary risk and disruption of reliability where those frequencies are significantly shorter than required under a risk based approach that considers each facility’s unique operating conditions.

SGA commends DOGGR for promoting enhancements to well integrity and the safety and reliability of underground natural gas storage assets. The SGA USC appreciates the opportunity to offer comment and support of the advocacy of AGA. Please contact me if you have any questions.

Respectfully submitted,

Scott Newcomb
Chairman - Southern Gas Association - Underground Storage Committee
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