

AMENDED IN ASSEMBLY AUGUST 17, 2016

AMENDED IN ASSEMBLY JUNE 30, 2016

AMENDED IN SENATE MAY 31, 2016

AMENDED IN SENATE APRIL 26, 2016

AMENDED IN SENATE MARCH 28, 2016

SENATE BILL

No. 887

Introduced by Senator Pavley
(Coauthors: Senators Allen and De León)
(Coauthor: Assembly Member Wilk)

January 20, 2016

An act to add Chapter 6 (commencing with Section 42710) to Part 4 of Division 26 of the Health and Safety Code, ~~and to amend Section 3236.5 3403.5 of, and to add Sections 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, and 3146 to, Article 3.5 (commencing with Section 3180) to Chapter 1 of Division 3 of, the Public Resources Code, and to add Section 1103 to the Public Utilities Code, relating to natural gas.~~

LEGISLATIVE COUNSEL'S DIGEST

SB 887, as amended, Pavley. Natural gas storage wells.

~~Under~~

(1) *Under* existing law, the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation regulates the drilling, operation, maintenance, and abandonment of oil and gas wells in the state. Existing law provides that a person who fails to comply with specific laws relating to the regulation of oil or gas operations is guilty of a misdemeanor.

This bill would require *the operator of a natural gas storage well, before January 1, 2018, and annually thereafter, to be tested across its entire length for a loss of integrity resulting in a leak and to have those results reported to the division, and would prescribe standards for a natural gas storage well, including among other things, required baseline and follow-on proactive evaluations. This bill would require, on or before July 1, 2018, all natural gas storage wells, except low-risk natural gas storage wells, as defined, to be equipped with an automatic downhole shutoff system and to conduct natural gas injection and production through tubing only and be isolated from contact with the well casing. The bill would require low-risk natural gas storage wells to comply with those requirements on or before July 1, 2019, except as provided. This bill would require all newly constructed natural gas storage wells to have a cement barrier, as determined by the supervisor. This bill would require, in the event of a loss of the integrity of a natural gas storage well, well casing, or cementing resulting in a large ongoing leak of natural gas and associated gases and materials that pose a significant present or potential hazard to public health and safety, property, or to the environment, that preparations for the drilling of a relief well begin within 24 hours of the discovery of the leak. This to have commenced a mechanical integrity testing regime specified by the division and would require the division to promulgate regulations that establish standards for all gas storage wells, as specified. This bill would require the division to determine by regulation what constitutes a reportable leak from a gas storage well and the timeframe for reporting those leaks, as specified. Until the regulations are in effect, this bill would require the operator, in the event of operator to notify the division immediately of a leak of any size from a natural gas storage well, to notify the division immediately and well. This bill would require the division to post information about the a reported leak that cannot be controlled within 48 hours on its Internet Web site, as prescribed. This bill would require the supervisor, within 72 hours of being notified of a reportable leak, to determine if a relief well is necessary. If the supervisor makes that determination, whether within the first 72 hours or after, the bill would require the operator to immediately begin preparation for, and commence the drilling of, a relief well. This bill would require an operator of a natural gas storage well to develop and maintain a comprehensive gas storage well training and mentoring program for those employees whose job duties involve the safety of operations and maintenance of natural gas storage wells and associated*

equipment, as specified. ~~This bill would require the division to convene an independent panel of recognized experts to develop best practices for natural gas storage facilities and to review and incorporate the best practices developed by the panel into its regulations for natural gas storage wells, if appropriate, and to the extent those practices are applicable, for other wells under the division's jurisdiction. The bill would require the division to periodically, and whenever necessary, review advances in relevant technologies and best practices for natural gas storage facilities and, if appropriate, to incorporate changes in best practices into its regulations for natural gas storage wells and, to the extent those practices are applicable, for other wells under the division's jurisdiction. This bill would require certain materials, relating to wells serving or located in a natural gas storage facility, including, among others, a site-specific risk management plan, to be submitted by the operator and approved at the supervisor's discretion. This bill would require the division to, as feasible, incorporate federal regulations applicable to natural gas storage facilities, including, into the division's gas storage well regulations, and to perform unannounced random onsite inspections of some natural gas storage wells annually. This bill would require the Office of Environmental Health Hazard Assessment and the State Department of Public Health, in consultation with the division, to perform a risk assessment of natural gas storage wells to determine, among other things, appropriate setback distances for natural gas storage wells and to report the findings of the risk assessment to the Legislature. This bill would require the State Air Resources Board, in consultation with any local air district and the division, to develop guidelines for a monitoring program that includes continuous monitoring of the ambient concentration of natural gas at sufficient locations throughout a natural gas storage facility or planned natural gas storage facility to identify natural gas leaks and the presence of natural gas emissions in the atmosphere. The bill would require an operator of a natural gas storage facility to develop and submit to the state board a facility monitoring plan that satisfies the program requirements, and would require the state board to review the plan and to either approve or disapprove the plan. This bill would require an operator of a natural gas storage facility to provide the monitoring data to be provided to the state board. This bill would require the division state board or the division, as applicable, to post and make available on its respective Internet Web site all materials that are provided to the state board or division division, as applicable, in order to comply with the provisions added by this act.~~

Because a violation of these requirements would be a crime, the bill would impose a state-mandated local program.

~~Existing~~

(2) *Existing* law requires the operator of a well to file a written notice of intention to commence drilling with, and prohibits any drilling until approval is given by, the supervisor or district deputy. Under existing law, the notice is deemed approved if the supervisor or district deputy fails to respond to the notice in writing within 10 working days from receipt and is deemed canceled if operations have not commenced within one year of receipt. Existing law provides that these provisions also apply to the deepening or redrilling of the well, any operation involving the plugging of the well, or any operations permanently altering in any manner the casing of the well.

~~This bill would require certain materials, relating to wells serving or located in a natural gas storage facility, to be submitted by the operator and approved at the supervisor's discretion before approval of the notice. This bill would provide that the public has a right to review the locations of all new natural gas storage wells or existing wells converting to natural gas storage wells before the approval of the notice. the division, on a weekly basis, to post on its Internet Web site a list of the notices of intention received by the division, and to provide copies of those notices to the public upon request.~~

~~Existing law requires the owner or operator of any well to keep, or cause to be kept, a careful and accurate log, core record, and history of the drilling of the well.~~

~~This bill would require the well history to include all operations, injection, production, and emplacement of any materials into a natural gas storage well, and to be disclosed to the division by the operator, as specified.~~

~~Under existing law, a person who violates certain statutes or regulations relating to oil and gas well operations is subject to a civil penalty not to exceed \$25,000 for each violation. Existing law provides that the unreasonable waste of natural gas by act, omission, sufferance, or insistence is opposed to the public interest and is unlawful.~~

~~This bill would provide that a violation of the prohibition against the unreasonable waste of natural gas is subject to the civil penalty not to exceed \$25,000 for each violation.~~

(3) *Under existing law, the supervisor is required to impose an annual charge computed at a uniform rate based on the number of wells used to inject and withdraw gas from an underground storage facility during*

the preceding calendar year. Existing law requires the charge to defray the costs incurred by the state in maintaining surveillance over those facilities.

This bill would instead require that annual charge to be the proportionate share of the total regulatory costs projected for each fiscal year based on the field capacity and number of wells of each underground gas storage facility. The bill would require an additional charge to be imposed on an operator, if an uncontrolled leak or release of gas occurs at the operator's underground gas storage facility, to defray the costs of the response effort of the division, as specified.

(4) The Administrative Procedure Act governs the procedure for the adoption, amendment, or repeal of regulations by state agencies and for the review of those regulatory actions by the Office of Administrative Law. Existing law provides that, if a state agency makes a finding that the adoption of a regulation or order of repeal is necessary for the immediate preservation of the public peace, health and safety, or general welfare, the regulation or order of repeal may be adopted as an emergency regulation or order of repeal. Under existing law, a regulation, amendment, or order of repeal adopted as an emergency regulation remains in effect no more than 180 days unless the adopting agency and the Office of Administrative Law comply with certain requirements.

Until January 1, 2019, this bill would instead require that emergency regulations adopted by the division effective February 5, 2016, continue in effect until the adoption, amendment, or repeal of the regulation is promulgated by the division pursuant to the act.

(5) Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including gas corporations. The Public Utilities Act prohibits any gas corporation from beginning the construction of, among other things, a line, plant, or system, or of any extension thereof, without having first obtained from the commission a certificate that the present or future public convenience and necessity require or will require that construction.

This bill, if a new underground gas storage facility is proposed, would require the commission to ensure that a risk assessment evaluating the potential impact of a leak from the facility on public and environmental health, safety, and welfare is conducted by the project proponent, as specified. This bill would require that the findings of any risk assessment conducted pursuant to these provisions be subjected to peer review by independent experts and reported to the Legislature, as specified.

~~The~~

(6) *The* California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

- 1 SECTION 1. The Legislature finds and declares as follows:
- 2 (a) Public transparency regarding risks, the regulations designed
- 3 to mitigate those risks, and regulatory activity are essential to
- 4 protect public health and welfare and natural resources.
- 5 (b) Public disclosure and safe operation of gas storage wells
- 6 and associated piping and equipment are essential in order to
- 7 provide for public, environmental, and occupational health and
- 8 welfare, including a proactive approach to potential problems.
- 9 (c) On October 23, 2015, a significant, uncontrolled leak from
- 10 a natural gas storage well that was originally drilled over 60 years
- 11 ago was discovered in the Aliso Canyon natural gas storage facility
- 12 located in the County of Los Angeles. Initial efforts to stop the
- 13 leak failed.
- 14 (d) The Division of Oil, Gas, and Geothermal Resources in the
- 15 Department of Conservation responded swiftly to the leak,
- 16 including by issuing two orders that, among other things, require
- 17 the use of relief wells. The division worked around the clock
- 18 overseeing efforts to stop the leak.
- 19 (e) It was several days before the community was notified of
- 20 the leak, although numerous residents started reporting odor
- 21 concerns almost immediately. The leaking well is up the hill and
- 22 approximately one and one-quarter miles away from the nearest
- 23 home. Other natural gas storage wells serving this facility are
- 24 located closer to homes and businesses.
- 25 (f) The operator of the leaking well had removed a subsurface
- 26 safety valve decades earlier and had not replaced it. Regulations
- 27 in effect at that time did not require approval or replacement of
- 28 the valve. There was no automatic downhole shutoff system
- 29 installed in the event of a leak. In 2014, the operator acknowledged

1 publicly in a filing to the Public Utilities Commission that many
2 of its wells needed additional assessment and repair. There was
3 no requirement to disclose to potential homebuyers and business
4 owners the existence of the Aliso Canyon natural gas storage
5 facility and its attendant risks.

6 (g) The Governor declared a state of emergency on January 6,
7 2016, in order to facilitate the ongoing state response and efforts
8 to stop the leak.

9 (h) On February 18, 2016, the Division of Oil, Gas, and
10 Geothermal Resources in the Department of Conservation certified
11 that the Aliso Canyon leak had been stopped. Reports estimate
12 almost 100,000 metric tons of the potent greenhouse gas methane
13 were emitted to the atmosphere. ~~Community~~ *In addition to climate*
14 *risks, community* health concerns continue postleak with hundreds
15 of complaints reported to the County of Los Angeles along with
16 widespread concern about the short- and long-term impacts of the
17 leak on public health and economic welfare in the area.

18 (i) The standards for natural gas storage wells need to be
19 improved in order to reflect 21st century technology, disclose and
20 mitigate any risks associated with those wells, recognize that these
21 facilities may be in locations near population centers, and ensure
22 a disaster like the Aliso Canyon leak does not happen again.

23 SEC. 2. Chapter 6 (commencing with Section 42710) is added
24 to Part 4 of Division 26 of the Health and Safety Code, to read:

25

26 CHAPTER 6. NATURAL GAS STORAGE FACILITY MONITORING

27

28 42710. (a) The state board, in consultation with any local air
29 district and the Division of Oil, Gas, and Geothermal Resources
30 in the Department of Conservation, shall develop a natural gas
31 storage facility monitoring program that includes continuous
32 monitoring of the ambient concentration of natural gas at sufficient
33 locations throughout a natural gas storage facility or planned
34 natural gas storage facility to identify natural gas leaks and the
35 presence of natural gas emissions in the atmosphere. The
36 continuous monitoring program may be supplemented by daily
37 leak detection measurements.

38 (b) (1) The program shall include guidelines for the continuous
39 monitoring which shall include, at minimum, optical gas ~~imaging~~
40 *imaging, where applicable*, and accurate quantitative monitoring

1 of natural gas concentrations. The program shall include protocols
 2 for both stationary and mobile monitoring, as well as fixed and
 3 temporary monitoring locations.

4 (2) *The program shall require optical gas imaging when a large,*
 5 *ongoing leak occurs.*

6 (c) An operator of a natural gas storage facility shall develop
 7 and submit to the state board a facility monitoring plan that satisfies
 8 program requirements pursuant to ~~subdivision (a): subdivisions~~
 9 *(a) and (b)*. The state board shall review the plan and may approve
 10 or disapprove the plan.

11 (d) *An operator of a natural gas storage facility shall conduct*
 12 *monitoring in accordance with the facility monitoring plan*
 13 *approved by the state board pursuant to subdivision (c).*

14 ~~(d) Monitoring data shall be provided~~

15 (e) *An operator of a natural gas storage facility shall provide*
 16 *monitoring data to the state board. All materials provided to*
 17 *comply with this section shall be posted and available to the public*
 18 *on the Internet Web site of the* ~~Division of Oil, Gas, and~~
 19 ~~Geothermal Resources: state board.~~

20 ~~SEC. 3. Section 3133 is added to the Public Resources Code,~~
 21 ~~to read:~~

22 3133. (a) (1) ~~As used in this article, “natural gas storage well”~~
 23 ~~means an active or idle well used solely to inject gas into or~~
 24 ~~withdraw gas from an underground gas storage facility.~~

25 (2) (A) ~~For purposes of this section, a “low-risk natural gas~~
 26 ~~storage well” means a natural gas storage well that meets all of~~
 27 ~~the following:~~

28 (i) ~~The well is not subject to Section 3217.~~

29 (ii) ~~The well is located in a nonurban area.~~

30 (iii) ~~The well meets or exceeds current well construction~~
 31 ~~standards for gas storage wells.~~

32 (iv) ~~The well was constructed specifically for natural gas storage~~
 33 ~~and was constructed after January 1, 1997.~~

34 (v) ~~The well has a consistent and demonstrated record of~~
 35 ~~mechanical integrity, as determined by the supervisor.~~

36 (vi) ~~The well is in compliance with all other applicable~~
 37 ~~requirements imposed by this article and the division’s regulations.~~

38 (B) (1) ~~The division may deem any natural gas storage well as~~
 39 ~~ineligible for classification as a low-risk natural gas storage well~~
 40 ~~to protect public safety and natural resources.~~

1 ~~(2) If the division exercises the authority provided in paragraph~~
2 ~~(1), the division shall make a written finding of that decision.~~

3 ~~(b) Before January 1, 2018, and annually thereafter, all natural~~
4 ~~gas storage wells shall be tested across their entire length for a loss~~
5 ~~of integrity resulting in a leak and the results of the testing shall~~
6 ~~be reported to the division.~~

7 ~~(c) (1) Except as provided in paragraph (2), all natural gas~~
8 ~~storage wells shall, on or before July 1, 2018, comply with both~~
9 ~~of the following:~~

10 ~~(A) Have an automatic downhole shutoff system, including, but~~
11 ~~not limited to, surface-controlled subsurface safety valves,~~
12 ~~deployed in order to limit leaks associated with a loss of the~~
13 ~~integrity of a well, well casing, or cementing. The shutoff system~~
14 ~~shall be tested and the results of the test shall be reported to the~~
15 ~~division no less than semiannually.~~

16 ~~(B) Conduct natural gas injection and production through tubing~~
17 ~~only and be isolated from contact with the well casing.~~

18 ~~(2) All low-risk natural gas storage wells shall comply with~~
19 ~~subparagraphs (A) and (B) of paragraph (1) on or before July 1,~~
20 ~~2019.~~

21 ~~(d) The division shall review and update practices for the use~~
22 ~~of subsurface safety valves in natural gas storage wells to reflect~~
23 ~~the best practices established by independent experts pursuant to~~
24 ~~Section 3140.~~

25 ~~(e) All newly constructed natural gas storage wells shall have~~
26 ~~a cement barrier, as determined by the supervisor.~~

27 ~~(f) (1) The division may modify the requirements of subdivision~~
28 ~~(e) for low-risk natural gas storage wells to protect public safety~~
29 ~~and natural resources.~~

30 ~~(2) If the division exercises the authority provided in paragraph~~
31 ~~(1), the division shall make a written finding of that decision.~~

32 ~~(g) Nothing in this section shall be construed as limiting the~~
33 ~~supervisor's authority to take action to respond to a hazard.~~

34 ~~SEC. 4. Section 3134 is added to the Public Resources Code,~~
35 ~~to read:~~

36 ~~3134. A natural gas storage well shall meet all of the following~~
37 ~~requirements:~~

38 ~~(a) (1) Baseline and follow-on proactive evaluations of the~~
39 ~~integrity of the well, well casing, and cementing across the entire~~
40 ~~length of the well shall be conducted to thoroughly, quantitatively,~~

1 and accurately assess their condition. These assessments shall be
2 performed using the best available technology. Based upon these
3 assessments, the risks posed by erosion, corrosion, material
4 deterioration, scaling, cracking, and any other process that may
5 produce natural gas leaks shall be determined.

6 ~~(2) By January 1, 2018, the division shall develop a schedule~~
7 ~~for the completion of baseline proactive evaluations for all natural~~
8 ~~gas storage wells.~~

9 ~~(3) The division shall also develop a schedule for performing~~
10 ~~follow-on proactive evaluations for all natural gas storage wells~~
11 ~~in order to measure any changes in well condition after the baseline~~
12 ~~proactive evaluations are completed. The schedule shall be~~
13 ~~determined based upon an assessment of risk. The natural gas~~
14 ~~storage wells at lowest risk of a loss of integrity shall be~~
15 ~~reevaluated pursuant to this paragraph at least once every four~~
16 ~~years and natural gas storage wells at high risk of a loss of integrity~~
17 ~~shall be reevaluated pursuant to this paragraph at least annually.~~

18 ~~(4) A natural gas storage well that has lost integrity or that is at~~
19 ~~risk of an imminent loss of integrity shall be immediately repaired~~
20 ~~before returning to service.~~

21 ~~(b) Annular pressure and production or injection flow rate shall~~
22 ~~be continuously monitored.~~

23 ~~SEC. 5. Section 3135 is added to the Public Resources Code,~~
24 ~~to read:~~

25 ~~3135. (a) For the purposes of this section, “sensitive receptor”~~
26 ~~means any living quarters, including private homes, condominiums,~~
27 ~~apartments, retirement homes, prisons, dormitories, or other~~
28 ~~housing; education resources, including preschools and schools~~
29 ~~operating kindergarten or any of grades 1 to 12, inclusive; daycare~~
30 ~~centers; and health care facilities, including hospitals, nursing~~
31 ~~homes, and long-term care and hospice facilities.~~

32 ~~(b) The Office of Environmental Health Hazard Assessment~~
33 ~~and the State Department of Public Health, in consultation with~~
34 ~~the division, shall perform a science-based risk assessment of~~
35 ~~natural gas storage wells. The goal of the risk assessment shall be~~
36 ~~to determine appropriate setback distances for natural gas storage~~
37 ~~wells from different locations, activities, and receptors. The risk~~
38 ~~assessment shall include, but is not limited to, all of the following~~
39 ~~information:~~

1 ~~(1) The construction, service history, and operating conditions~~
2 ~~of a well.~~

3 ~~(2) The potential impact of a leak on public and environmental~~
4 ~~health, safety, and welfare. Both acute and chronic exposures for~~
5 ~~a range of expected emissions and emissions rates shall be~~
6 ~~considered.~~

7 ~~(3) The factors relevant to determining setback distances~~
8 ~~including, but not limited to, population density, sensitive receptors,~~
9 ~~environmentally sensitive areas, emergency response times,~~
10 ~~evacuation times, leak duration, chemical species emitted, and~~
11 ~~local meteorology.~~

12 ~~(4) The data necessary to determine appropriate setback~~
13 ~~distances.~~

14 ~~(e) The risk assessment conducted pursuant to subdivision (b)~~
15 ~~shall be subjected to peer review by independent experts.~~

16 ~~(d) The findings of the risk assessment required by subdivision~~
17 ~~(b) shall be reported to the Legislature in accordance with Section~~
18 ~~9795 of the Government Code.~~

19 ~~(e) Upon completion of the risk assessment required by~~
20 ~~subdivision (b), the division shall review and, as appropriate, revise~~
21 ~~its regulations.~~

22 ~~SEC. 6. Section 3136 is added to the Public Resources Code,~~
23 ~~to read:~~

24 ~~3136. (a) The operator of a natural gas storage well shall~~
25 ~~submit for the supervisor's approval the following materials:~~

26 ~~(1) A regular maintenance program for the well and the portion~~
27 ~~of the facility within the division's jurisdiction. The maintenance~~
28 ~~program shall include training for site personnel and proactive~~
29 ~~replacement of equipment at risk of failure to ensure safe operation.~~

30 ~~(2) Design and operating conditions and parameters for the well~~
31 ~~and the portion of the facility within the division's jurisdiction.~~

32 ~~(3) An inspection, leak detection, and monitoring program for~~
33 ~~the well and the portion of the facility within the division's~~
34 ~~jurisdiction that includes monitoring of natural gas concentrations~~
35 ~~pursuant to Chapter 6 (commencing with Section 42710) of Part~~
36 ~~4 of Division 26 of the Health and Safety Code. Ambient natural~~
37 ~~gas monitoring sufficient to include monitoring of a new or~~
38 ~~reworked well shall be in operation before a new well is drilled or~~
39 ~~a well is reworked.~~

1 ~~(4) A site-specific risk management plan to identify and plan~~
2 ~~for mitigation of all threats and hazards and potential threats and~~
3 ~~hazards associated with natural gas storage well operation in order~~
4 ~~to ensure internal and external mechanical integrity of a well. The~~
5 ~~risk management plan shall provide for regular review and revision,~~
6 ~~as needed, to ensure the plan appropriately reflects current~~
7 ~~conditions. The risk management plan shall include, but is not~~
8 ~~limited to, all of the following:~~

9 ~~(A) A natural gas leak prevention and response program that~~
10 ~~addresses the full range of natural gas leaks possible at the facility~~
11 ~~with specific response plans that provide for immediate control of~~
12 ~~the leak. The prevention and response program shall include, but~~
13 ~~is not limited to, all of the following:~~

14 ~~(i) A protocol for public notice of the leak to the community by~~
15 ~~the operator.~~

16 ~~(ii) Prepositioning, as feasible, and identification of materials~~
17 ~~and personnel necessary to respond to leaks. This shall include~~
18 ~~materials and equipment to respond to and stop the leak itself as~~
19 ~~well as to protect public health.~~

20 ~~(iii) A training program to ensure site personnel are prepared~~
21 ~~to respond to a leak, consistent with the requirements of Section~~
22 ~~3144.~~

23 ~~(B) A plan for corrosion monitoring and evaluation.~~

24 ~~(C) A schedule for regular well and reservoir integrity~~
25 ~~assessments.~~

26 ~~(D) An assessment of the risks associated with the natural gas~~
27 ~~storage well and its operation.~~

28 ~~(E) Planned risk mitigation efforts.~~

29 ~~(b) All of the materials described in subdivision (a) shall be~~
30 ~~approved by the supervisor, at his or her discretion, and in the~~
31 ~~possession of the division before the supervisor or district deputy~~
32 ~~approves a notice required pursuant to Section 3203.~~

33 ~~(c) All of the materials described in subdivision (a) shall be~~
34 ~~reported to the division annually. The operator shall not deviate~~
35 ~~from the programs, plans, and other conditions and protocols~~
36 ~~contained in the materials without prior written approval by the~~
37 ~~supervisor.~~

38 ~~SEC. 7. Section 3137 is added to the Public Resources Code,~~
39 ~~to read:~~

1 ~~3137. The public has a right to review the location of a natural~~
2 ~~gas storage well or conversion of an existing well to a natural gas~~
3 ~~storage well before the approval of any notice required pursuant~~
4 ~~to Section 3203.~~

5 ~~SEC. 8. Section 3138 is added to the Public Resources Code,~~
6 ~~to read:~~

7 ~~3138. In the event of a loss of the integrity of a natural gas~~
8 ~~storage well, well casing, or cementing resulting in a large ongoing~~
9 ~~leak of natural gas and associated gases and materials that pose a~~
10 ~~significant present or potential hazard to public health and safety,~~
11 ~~property, or to the environment, preparations for the drilling of a~~
12 ~~relief well shall begin within 24 hours of the discovery of the leak~~
13 ~~regardless of any other activities undertaken to stop the leak.~~

14 ~~SEC. 9. Section 3139 is added to the Public Resources Code,~~
15 ~~to read:~~

16 ~~3139. In the event of a leak of any size from a natural gas~~
17 ~~storage well, the operator shall notify the division immediately.~~
18 ~~Within 24 hours of notification, the division shall post information~~
19 ~~about the leak on its Internet Web site and provide regular updates~~
20 ~~to the public until the leak is stopped.~~

21 ~~SEC. 10. Section 3140 is added to the Public Resources Code,~~
22 ~~to read:~~

23 ~~3140. (a) The division shall convene an independent panel of~~
24 ~~recognized experts to develop best practices for natural gas storage~~
25 ~~facilities. The panel shall consider at least all of the following:~~

26 ~~(1) The proximity of a natural gas storage facility and wells to~~
27 ~~populations of people.~~

28 ~~(2) The conditions at which a well should be plugged and~~
29 ~~abandoned, and what standards the plugging and abandonment~~
30 ~~should meet.~~

31 ~~(3) The range of proactive methods to assess the integrity of a~~
32 ~~well, well casing, and cementing, and identifying the best available~~
33 ~~technology for these assessments.~~

34 ~~(4) A thorough analysis of the risks associated with the~~
35 ~~conversion of a well for use as a natural gas storage well.~~

36 ~~(5) Natural gas storage well design, operating, maintenance,~~
37 ~~and monitoring standards, including, but not limited to, placement~~
38 ~~of observation wells, soil monitoring, training, and well monitoring~~
39 ~~after plugging and abandonment.~~

1 ~~(6) Risk assessment and management tools for all threats and~~
2 ~~hazards and potential threats and hazards associated with natural~~
3 ~~gas storage wells, including identifying data requirements for those~~
4 ~~tools, with the goal of providing for a standardized and comparable~~
5 ~~approach to evaluate natural gas storage wells statewide.~~

6 ~~(7) Automatic shutoff systems including the location and~~
7 ~~placement of subsurface and surface safety valves, shutoff control~~
8 ~~systems, reliability, and appropriate use.~~

9 ~~(b) Upon completion of the panel's work pursuant to subdivision~~
10 ~~(a), the division shall review and incorporate best practices~~
11 ~~developed by the panel into its regulations for natural gas storage~~
12 ~~wells, if appropriate, and, to the extent those practices are~~
13 ~~applicable, for other wells under the division's jurisdiction.~~

14 ~~(c) The division shall periodically, and whenever necessary,~~
15 ~~review advances in relevant technologies and best practices for~~
16 ~~natural gas storage facilities and, if appropriate, shall incorporate~~
17 ~~changes in best practices into its regulations for natural gas storage~~
18 ~~wells and, to the extent those practices are applicable, for other~~
19 ~~wells under the division's jurisdiction.~~

20 ~~SEC. 11. Section 3141 is added to the Public Resources Code,~~
21 ~~to read:~~

22 ~~3141. In order to facilitate consistency, standardization, and~~
23 ~~training, the division shall, as feasible, incorporate federal~~
24 ~~regulations applicable to natural gas storage facilities, including,~~
25 ~~but not limited to, Parts 190 to 199, inclusive, of Title 49 of the~~
26 ~~Code of Federal Regulations into the division's natural gas storage~~
27 ~~well regulations.~~

28 ~~SEC. 12. Section 3142 is added to the Public Resources Code,~~
29 ~~to read:~~

30 ~~3142. To ensure that the division has all the records it needs~~
31 ~~to evaluate natural gas storage wells, the well history maintained~~
32 ~~pursuant to Section 3213 shall include all operations, injection,~~
33 ~~production, and emplacement of any materials into the well. The~~
34 ~~operator shall disclose the well history to the division for each~~
35 ~~operation, injection, production, and emplacement of any material~~
36 ~~into the well.~~

37 ~~SEC. 13. Section 3143 is added to the Public Resources Code,~~
38 ~~to read:~~

39 ~~3143. The division shall perform unannounced random onsite~~
40 ~~inspections of some natural gas storage wells annually. The results~~

1 shall be posted and available to the public on the division's Internet
2 Web site.

3 ~~SEC. 14. Section 3144 is added to the Public Resources Code,~~
4 ~~to read:~~

5 ~~3144. An operator of a natural gas storage well shall develop~~
6 ~~and maintain a comprehensive gas storage well training and~~
7 ~~mentoring program for those employees whose job duties involve~~
8 ~~the safety of operations and maintenance of natural gas storage~~
9 ~~wells and associated equipment. The training program shall include,~~
10 ~~but is not limited to, gas storage well operations, including best~~
11 ~~practices to prevent leaks, maintenance and testing, gas storage~~
12 ~~well safety regulations, emergency response, and incident reporting.~~
13 ~~If employees are represented by a labor union, the operator shall~~
14 ~~consult with the union on safety issues and, when requested,~~
15 ~~establish a framework to provide training through a joint~~
16 ~~labor-management training program.~~

17 ~~SEC. 15. Section 3145 is added to the Public Resources Code,~~
18 ~~to read:~~

19 ~~3145. All materials provided to the division to comply with~~
20 ~~Section 3133 to 3143, inclusive, shall be posted and available to~~
21 ~~the public on the Internet Web site of the division.~~

22 ~~SEC. 16. Section 3146 is added to the Public Resources Code,~~
23 ~~to read:~~

24 ~~3146. A member of the public may bring suit for writ of~~
25 ~~mandate against the division for failure to enforce Sections 3133~~
26 ~~to 3145, inclusive.~~

27 ~~SEC. 17. Section 3236.5 of the Public Resources Code is~~
28 ~~amended to read:~~

29 ~~3236.5. (a) A person who violates this chapter or a regulation~~
30 ~~implementing this chapter is subject to a civil penalty not to exceed~~
31 ~~twenty-five thousand dollars (\$25,000) for each violation. A person~~
32 ~~who commits a violation of Article 3 (commencing with Section~~
33 ~~3150) or Section 3300 is subject to a civil penalty of not less than~~
34 ~~ten thousand dollars (\$10,000) and not to exceed twenty-five~~
35 ~~thousand dollars (\$25,000) per day per violation. An act of God~~
36 ~~and an act of vandalism beyond the reasonable control of the~~
37 ~~operator shall not be considered a violation. The civil penalty shall~~
38 ~~be imposed by an order of the supervisor pursuant to Section 3225~~
39 ~~upon a determination that a violation has been committed by the~~
40 ~~person charged. The imposition of a civil penalty under this section~~

1 shall be in addition to any other penalty provided by law for the
 2 violation. When establishing the amount of the civil penalty
 3 pursuant to this section, the supervisor shall consider, in addition
 4 to other relevant circumstances, all of the following:

- 5 (1) ~~The extent of harm caused by the violation.~~
- 6 (2) ~~The persistence of the violation.~~
- 7 (3) ~~The pervasiveness of the violation.~~
- 8 (4) ~~The number of prior violations by the same violator.~~

9 (b) ~~An order of the supervisor imposing a civil penalty shall be~~
 10 ~~reviewable pursuant to Article 6 (commencing with Section 3350).~~
 11 ~~When the order of the supervisor has become final and the penalty~~
 12 ~~has not been paid, the supervisor may apply to the appropriate~~
 13 ~~superior court for an order directing payment of the civil penalty.~~
 14 ~~The supervisor may also seek from the court an order directing~~
 15 ~~that production from the well or use of the production facility that~~
 16 ~~is the subject of the civil penalty order be discontinued until the~~
 17 ~~violation has been remedied to the satisfaction of the supervisor~~
 18 ~~and the civil penalty has been paid.~~

19 (e) ~~Any amount collected under this section shall be deposited~~
 20 ~~in the Oil, Gas, and Geothermal Administrative Fund.~~

21 *SEC. 3. Article 3.5 (commencing with Section 3180) is added*
 22 *to Chapter 1 of Division 3 of the Public Resources Code, to read:*

23
 24 *Article 3.5. Natural Gas Storage Wells*

25
 26 *3180. (a) As used in this article, “gas storage well” means*
 27 *an active or idle well used primarily to inject natural gas into or*
 28 *withdraw natural gas from an underground natural gas storage*
 29 *facility.*

30 *(b) On or before January 1, 2018, the operators of all gas*
 31 *storage wells shall have commenced a mechanical integrity testing*
 32 *regime specified by the division. The testing regime shall include*
 33 *all of the following:*

- 34 (1) *Regular leak testing.*
- 35 (2) *Casing wall thickness inspection.*
- 36 (3) *Pressure test of the production casing.*
- 37 (4) *Any additional testing deemed necessary by the division to*
 38 *demonstrate the integrity of the well.*

1 (c) All anomalies identified in the testing shall be immediately
2 reported to the appropriate district office and explained to the
3 supervisor's satisfaction.

4 (d) (1) The division shall promulgate regulations that establish
5 standards for the design, construction, and maintenance of all gas
6 storage wells to ensure that integrity concerns with a gas storage
7 well are identified and addressed before they can become a threat
8 to life, health, property, the climate, or natural resources.

9 (2) The regulations shall require that gas storage wells be
10 designed, constructed, and maintained to ensure that a single point
11 of failure does not pose an immediate threat of loss of control of
12 fluids, as determined by the supervisor.

13 (3) In developing the regulations, the division shall consider
14 enhanced design, construction, and maintenance measures that
15 could meet the standard in paragraph (2), including any of the
16 following:

17 (A) Primary and secondary mechanical well barriers to isolate
18 the storage gas within the storage reservoir and transfer storage
19 gas from the surface into and out of the storage reservoir.

20 (B) Production casing to the surface with the required integrity
21 to contain reservoir pressure.

22 (C) Tubing and packer and production tree with the required
23 integrity to contain reservoir pressure.

24 (D) Surface controlled subsurface safety valves or Christmas
25 tree valves with the required integrity to contain reservoir pressure
26 that halt flow through the well.

27 (E) Secondary barrier with overlapping cement casing between
28 two concentric casings with good quality cement bond.

29 (F) Wellhead with annular valves and seals and the required
30 integrity to contain reservoir pressure.

31 (G) Casing with a hanger and seal assembly.

32 (H) Any other well construction requirements the supervisor
33 determines would improve the protection of public health, safety,
34 the environment, and natural resources.

35 (4) In developing the regulations, the division shall develop a
36 schedule for ongoing mechanical integrity testing.

37 (e) In order to facilitate consistency, standardization, and
38 training for site inspection and maintenance, to the extent that the
39 regulations promulgated by the division pursuant to subdivision

40 (d) address surface equipment associated with an underground

1 gas storage facility, the division shall ensure that those regulations
2 are consistent with comparable requirements in Parts 190 to 199,
3 inclusive, of Title 49 of the Code of Federal Regulations.

4 3181. (a) The operator of a gas storage well shall submit for
5 the supervisor's approval the following materials:

6 (1) Data describing the gas storage project and gas storage
7 wells that demonstrate that stored gas will be confined to the
8 approved zone or zones. Updated data shall be provided to the
9 division if conditions change or if more accurate data become
10 available.

11 (2) A site-specific risk management plan to identify and plan
12 for mitigation of all threats and hazards and potential threats and
13 hazards associated with gas storage well operation in order to
14 ensure internal and external mechanical integrity of a well. The
15 risk management plan shall provide for regular review and
16 revision, as needed, to ensure the plan appropriately reflects
17 current conditions. The operator shall consult with local emergency
18 response entities on the risk management plan. The risk
19 management plan shall include, but is not limited to, all of the
20 following:

21 (A) A natural gas leak prevention and response program that
22 addresses the full range of natural gas leaks possible at the facility
23 with specific response plans that provide for immediate control of
24 the leak. The prevention and response program shall include, but
25 is not limited to, all of the following:

26 (i) A protocol for public notice of a large, uncontrollable leak
27 to any community within two miles of the leak if the leak cannot
28 be controlled within 48 hours of discovery by the operator.

29 (ii) Prepositioning, as feasible, and identification of materials
30 and personnel necessary to respond to leaks. This shall include
31 materials and equipment to respond to and stop the leak itself as
32 well as to protect public health.

33 (iii) The identification of personnel responsible for notifying
34 regulatory authorities with jurisdiction over the range of leaks
35 possible.

36 (B) A plan for corrosion monitoring and evaluation.

37 (C) A schedule for regular well and reservoir integrity
38 assessments.

39 (D) An assessment of the risks associated with the gas storage
40 well and its operation.

1 (E) *Planned risk mitigation efforts.*

2 (F) *A regular maintenance program for the well and the portion*
3 *of the facility within the division’s jurisdiction. The maintenance*
4 *program shall include training for site personnel and proactive*
5 *replacement of equipment at risk of failure to ensure safe*
6 *operation.*

7 (3) *In addition to other factors deemed relevant by the*
8 *supervisor, the risk management plan required in paragraph (2)*
9 *shall consider all of the following:*

10 (A) *The facility’s distance from dwellings, other buildings*
11 *intended for human occupancy, or other well-defined outside areas*
12 *where people may assemble such as campgrounds, recreational*
13 *areas, or playgrounds.*

14 (B) *The risks to and from the well related to roadways, rights*
15 *of way, railways, airports, and industrial facilities.*

16 (C) *Proximity to environmentally or culturally sensitive areas.*

17 (D) *The risks of well sabotage.*

18 (E) *The current and predicted development of the surrounding*
19 *area.*

20 (F) *Topography and local wind patterns.*

21 (b) *All of the materials described in subdivision (a) shall be*
22 *reported to the division according to a schedule approved by the*
23 *supervisor. The operator shall not deviate from the programs,*
24 *plans, and other conditions and protocols contained in the*
25 *materials without prior written approval by the supervisor.*

26 3182. *On a weekly basis, the division shall post a list of notices*
27 *received pursuant to Section 3203 on the division’s Internet Web*
28 *site. Copies of any notice shall be provided to members of the*
29 *public upon request.*

30 3183. (a) *The division, in consultation with the State Air*
31 *Resources Board, shall determine and adopt by regulation what*
32 *constitutes a reportable leak from a gas storage well and the*
33 *timeframe for reporting that leak. The regulations shall require*
34 *an operator to immediately report to the division a leak that poses*
35 *a significant present or potential hazard to public health and safety,*
36 *property, or to the environment.*

37 (b) *Until the regulations pursuant to subdivision (a) are in effect,*
38 *a leak of any size from a gas storage well shall be deemed a*
39 *reportable leak, and the operator shall notify the division*
40 *immediately.*

1 (c) If a leak from a gas storage well that is reported to the
2 division pursuant to subdivision (a) or (b), as applicable, cannot
3 be controlled within 48 hours, the division shall post information
4 about the leak on its Internet Web site and provide regular updates
5 to the public until the leak is stopped.

6 3184. (a) Within 72 hours of being notified of a reportable
7 leak, pursuant to Section 3183, the supervisor shall determine if
8 the reportable leak poses a significant present or potential hazard
9 to public health and safety, property, or to the environment such
10 that a relief well is necessary. If the supervisor makes that
11 determination, the operator shall immediately begin preparation
12 for, and commence the drilling of, a relief well.

13 (b) Nothing in subdivision (a) shall prevent the supervisor from
14 making a determination after the initial 72-hour period that a
15 reportable leak poses a significant hazard to public health and
16 safety, property, or to the environment and that a relief well is
17 necessary. If the supervisor makes that determination, the operator
18 shall immediately begin preparation for, and commence the drilling
19 of, a relief well.

20 (c) If the operator is required to drill a relief well under
21 subdivision (a) or (b), the operator's efforts to drill the relief well
22 shall continue until the reportable leak has been stopped and the
23 cause of the reportable leak has been fully addressed or the
24 supervisor determines that other means of controlling the
25 reportable leak are appropriate.

26 3185. The division shall perform unannounced random onsite
27 inspections of some gas storage wells annually. The results shall
28 be posted and available to the public on the division's Internet
29 Web site.

30 3186. An operator of a gas storage well shall develop and
31 maintain a comprehensive gas storage well training and mentoring
32 program for those employees whose job duties involve the safety
33 of operations and maintenance of gas storage wells and associated
34 equipment. The training program shall include, but is not limited
35 to, gas storage well operations, including best practices to prevent
36 leaks, maintenance and testing, gas storage well safety regulations,
37 emergency response, and incident reporting. If storage field
38 employees are represented by a labor union, the operator shall
39 consult with the relevant union local on safety issues and, when

1 *requested, establish a framework to provide training through a*
2 *joint labor-management training program.*

3 *3187. All materials provided to the division and approved by*
4 *the supervisor to comply with Sections 3181, 3184, and 3185 shall*
5 *be posted and available to the public on the Internet Web site of*
6 *the division in a timely manner.*

7 *SEC. 4. Section 3403.5 of the Public Resources Code is*
8 *amended to read:*

9 3403.5. (a) The Legislature finds that there are underground
10 storage facilities for gas that utilize depleted or partially depleted
11 oil or gas reservoirs. Purchased gas, usually from out of state, is
12 injected for storage and withdrawn during peak load periods. The
13 supervisor is required to maintain surveillance over these facilities
14 to ~~insure~~ *ensure* that the original reserves are not lost, that drilling
15 of new wells is conducted properly, and that no damage occurs to
16 the environment by reason of injection and withdrawal of gas.

17 (b) In order to help support the regulatory effort of the
18 supervisor, there shall be imposed an annual charge ~~computed at~~
19 ~~a uniform rate based on the number of wells used to inject and~~
20 ~~withdraw gas from an underground storage facility during the~~
21 ~~preceding calendar year. The charge shall defray the costs incurred~~
22 ~~by the state in conducting the activities described in this section.~~
23 *on operators of underground gas storage facilities to defray the*
24 *regulatory costs incurred by the state in conducting the activities*
25 *described in subdivision (a). Each underground gas storage facility*
26 *operator shall pay a proportionate share of the total regulatory*
27 *costs projected for each fiscal year based on the field capacity and*
28 *number of wells for each underground gas storage facility. For*
29 *each underground gas storage facility, the portion owed by the*
30 *operator shall be computed by multiplying the operator's field*
31 *capacity by the number of the operator's wells, and dividing that*
32 *product by the product of the field capacity of all underground*
33 *gas storage facilities statewide multiplied by the number of wells*
34 *for all underground gas storage facilities statewide.*

35 (c) *In order to defray the costs of the response effort of the*
36 *division in the event of a large, uncontrolled release of gas from*
37 *an underground storage facility that poses a significant present*
38 *or potential hazard to public health and safety, property, or to the*
39 *environment, there shall be an additional charge imposed entirely*
40 *on the operator of the underground storage facility at which the*

1 uncontrolled leak or release of gas occurred. The charge shall be
2 in the amount of the total directly associated costs incurred by the
3 division in the previous calendar year in the course of responding
4 to the release, including personnel hours, travel expenses,
5 contracting costs, and any other directly associated costs incurred
6 by the division.

7 (d) For purposes of this section, the following terms have the
8 following meanings:

9 (1) “Field capacity” means the gas storage capacity of an
10 underground gas storage facility, in cubic feet.

11 (2) “Wells” means all wells associated with an underground
12 gas storage facility except those that have been plugged and
13 abandoned pursuant to Section 3208 before the preceding calendar
14 year.

15 SEC. 5. Section 1103 is added to the Public Utilities Code, to
16 read:

17 1103. (a) If a new underground gas storage facility is
18 proposed, the commission shall ensure that a risk assessment
19 evaluating the potential impact of a leak from the facility on public
20 and environmental health, safety, and welfare is conducted by the
21 project proponent. Both acute and chronic exposures from a range
22 of expected emissions and emissions rates shall be evaluated. The
23 evaluation shall include consideration of population density in
24 proximal communities, environmentally sensitive areas, emergency
25 response times, evacuation times, possible leak duration, possible
26 chemical species emitted, and local meteorology.

27 (b) In evaluating the potential risks and impacts of acute and
28 chronic exposures from emissions from a proposed new gas storage
29 facility, the project proponent shall assess or cause to be assessed
30 risks associated with the proposed facility’s proximity to any living
31 quarters, including private homes, condominiums, apartments,
32 retirement homes, prisons, dormitories, or other housing; education
33 resources, including preschools and schools operating
34 kindergarten or any of grades 1 to 12, inclusive; day care centers;
35 and health care facilities, including hospitals, nursing homes, and
36 long-term care and hospice facilities. Based on the risk analysis,
37 appropriate setbacks to the listed structure types shall be
38 determined by the commission.

39 (c) The risk assessment conducted pursuant to this section shall
40 be subjected to peer review by independent experts whose

1 *demonstrated expertise includes, but is not limited to, the fields of*
2 *public health, epidemiology, and toxicology.*

3 *(d) The findings of any risk assessment required by this section*
4 *shall be reported to the Legislature in accordance with Section*
5 *9795 of the Government Code.*

6 *SEC. 6. (a) Notwithstanding Chapter 3.5 (commencing with*
7 *Section 11340) of Part 1 of Division 3 of Title 2 of the Government*
8 *Code, including subdivisions (e) and (h) of Section 11346.1 of the*
9 *Government Code, the emergency regulations amending Section*
10 *1724.9 of Title 14 of the California Code of Regulations adopted*
11 *by the Division of Oil, Gas, and Geothermal Resources in the*
12 *Department of Conservation effective February 5, 2016, shall*
13 *continue in effect until the adoption, amendment, or repeal of the*
14 *regulations is promulgated by the division pursuant to Chapter*
15 *3.5 (commencing with Section 11340) of Part 1 of Division 3 of*
16 *Title 2 of the Government Code.*

17 *(b) This section shall remain in effect only until January 1, 2019,*
18 *and as of that date is repealed, unless a later enacted statute, that*
19 *is enacted before January 1, 2019, deletes or extends that date.*

20 *SEC. 7. This act shall neither impair nor diminish requirements*
21 *imposed by Chapter 14 of the Statutes of 2016 related to the Aliso*
22 *Canyon natural gas storage facility located in the County of Los*
23 *Angeles.*

24 ~~SEC. 18.~~

25 *SEC. 8. No reimbursement is required by this act pursuant to*
26 *Section 6 of Article XIII B of the California Constitution because*
27 *the only costs that may be incurred by a local agency or school*
28 *district will be incurred because this act creates a new crime or*
29 *infraction, eliminates a crime or infraction, or changes the penalty*
30 *for a crime or infraction, within the meaning of Section 17556 of*
31 *the Government Code, or changes the definition of a crime within*
32 *the meaning of Section 6 of Article XIII B of the California*
33 *Constitution.*