



**JOE LOMBARDO**  
Governor

STATE OF NEVADA  
COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
400 W. King Street, Suite 106  
Carson City, Nevada 89703  
(775) 684-7040 • Fax (775) 684-7052  
<http://minerals.nv.gov/>



**ROBERT GHIGLIERI**  
Administrator

**Las Vegas Office:**  
375 E. Warm Springs Rd. #205, Las Vegas, NV 89119  
Phone: (702) 486-4343; Fax: (702) 486-4345

## NOTICE OF PUBLIC WORKSHOP

The Nevada Division of Minerals is holding a public workshop to solicit comments from interested persons regarding the regulations pertaining to chapters 513, 519A, 522, and 534A of the Nevada Administrative Code. A workshop has been set for:

Date: Tuesday, August 26, 2025  
Time: 1:00 PM  
Location: Nevada Legislature Building  
401 South Carson Street Room 3137  
Carson City, NV 89701

Virtually:

Join Zoom Meeting  
<https://lcb-state-nv-us.zoom.us/j/85769147675>

The purpose of the workshop is to solicit written/oral comments from interested persons on the following general topics that may be addressed in the proposed regulations:

1. Executive Order 2023-003 - Regulations streamlined, clarified, reduced or otherwise improved.
  - a. NAC 519A.570 "Administration by Division; application for participation; waiver or exception from certain requirements."
  - b. NAC 522.210 "Application for permit to drill; approved permits available on Internet"
  - c. NAC 522.215 "Cuttings: Requirements for permit; availability and use; notification of shortage"
  - d. NAC 522.232 "Duties of Operator"
  - e. NAC 522.234 "Well control and safety; equipment for prevention of blowout"
  - f. NAC 522.345 "Utilization of Gas"
  - g. NAC 522.249 "Form 2: Application for permit to drill"
  - h. NAC 522.510 "Form 5: Well completion report."
  - i. NAC 522.515 "Form 7: Producer's monthly report"
  - j. NAC 534A.196 "Application for permit for injection well; operator required to obtain permit pursuant to Nevada Water Pollution Control Law before operating well."
  - k. NAC 534A.205 "Location of well: Survey required; filing of certified plat of location."
  - l. NAC 534A.310 "Taking of cuttings; submission to Bureau of Mines and Geology"
  - m. NAC 534A.560 "Maintenance of records by operator; authority of Division to require additional information and inspect records."

2. NAC 513 Commission on Mineral Resources; Division of Minerals
  - a. NAC 513.070 “Confidentiality of information.”
  - b. NAC 513.120 “Annual reports by operators.”
3. NAC 534A Geothermal Resource
  - a. The Division of Minerals will conduct a workshop to solicit comments from interested persons on proposed changes to Chapter 534A of the Nevada Administrative Code revising regulations to the permitting, drilling, and operation of geothermal wells in relation to new geothermal technologies.

This workshop will be conducted in accordance with Nevada Open Meeting Law, NRS Chapter 241. Persons wishing to make oral comments on the proposed regulation of the Division of Minerals are encouraged to participate in the scheduled workshop, either in person or via Zoom. Persons wishing to submit written testimony or documentary evidence may submit the material by emailing [rtims@minerals.nv.gov](mailto:rtims@minerals.nv.gov) or by mailing to the following address:

Nevada Division of Minerals  
Attn: Rebecca Tims  
400 W. King St. Suite 106  
Carson City, NV 89703

Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to notify the Division of Minerals, 400 W. King Street, Suite 106, Carson City, NV 89703 or contact Rebecca Tims at (775) 684-7043 or by email at [rtims@minerals.nv.gov](mailto:rtims@minerals.nv.gov).

A copy of the notice and proposed regulation, and small business impact statements will be posted at the Nevada Division of Minerals website at <https://minerals.nv.gov/>. The Notice and Agenda have been posted on the Nevada Public Notice website at <http://notice.nv.gov> and <https://www.leg.state.nv.us/app/notice/a/> 15 days prior to the public workshop.

As required by the provisions of chapters 233B and 241 of Nevada Revised Statutes, the public notice for this hearing was posted at the following locations:

- Division of Minerals, 400 W. King St. Suite 106, Carson City, Nevada
- Nevada State Legislature, 401 S. Carson St., Carson City, Nevada
- Nevada State Library and Archives, 100 N. Stewart St, Carson City, Nevada
- Nevada Legislative Council Bureau, 700 E Warm Springs Road, Suite 300, Las Vegas Nevada

Posted on: August 6, 2025



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**COMMISSION ON MINERAL RESOURCES**  
Nevada Division of Minerals  
Public Workshop for Regulation Updates

Date: Tuesday, August 26, 2025  
Time: 1:00 PM  
Location: Nevada Legislature Building  
401 South Carson Street Room 3137  
Carson City, NV 89701

Virtually:  
Join Zoom Meeting  
<https://lcb-state-nv-us.zoom.us/j/85769147675>

AGENDA

I. Call to Order

II. Review of Proposed Regulations

- a. NAC 513 - Commission on Mineral Resources; Division of Minerals
- b. NAC 519A - Reclamation Of Land Subject to Mining Operations or Exploration Projects; Duties of Division of Minerals
- c. NAC 522 – Oil and Gas
- d. NAC 534A - Geothermal Resource

III. Adjournment

This workshop will be conducted in accordance with the Open Meeting Law (NRS 241.020).

NOTES:

- All proposed regulation changes and the Notice for this workshop can be found on the Division of Minerals website <https://minerals.nv.gov/>
- Comments by the general public will be taken following a description of the proposed regulation changes. Public comment may be limited to 5 minutes per person at the discretion of the staff member conducting the workshop. If anyone has questions or wishes to discuss in further detail the items scheduled for this regulation workshop, please contact Rebecca Tims at (775) 684-7040 or [rtims@minerals.nv.gov](mailto:rtims@minerals.nv.gov)

## AGENCY DRAFT

### PROPOSED ADMINISTRATIVE REGULATIONS OF THE NEVADA DIVISION OF MINERALS

#### CHAPTER 513

#### Commission on Mineral Resource; Division of Minerals

EXPLANATION - Language proposed for removal in red and bracketed - **{remove}**, additions in blue italics - *addition*

AUTHORITY: NRS 513

NAC 513.070 Confidentiality of information. (NRS 513.063)

1. Except as otherwise provided in subsection 4, any information submitted to the Administrator pursuant to the provisions of NAC 513.010 to 513.120, inclusive, may be classified as confidential by the person submitting the information. If the person submitting the information wishes the Administrator to consider the information confidential, the claim must be asserted at the time of submission by stamping or writing “confidential business information” on each page containing the information.

2. If a claim is asserted, the information so kept must remain confidential except that the information may be used in connection with other data if use of that information would not disclose the identity of the confidential information.

3. If a claim is not made at the time of submission, the Administrator may make the information available to the public without further notice.

4. The Administrator will not classify as confidential any information required to be submitted to him or her pursuant to the provisions of NAC 513.010 to 513.120, inclusive, if the information relates to:

(a) The name and address of the person conducting the operation of the mine;

(b) The annual production of the commodity *after April 15 of the reporting year for the previous year's production.*

*(1) The reporting company must request for the production data to be kept confidential until April 15 upon reporting, otherwise it will not be considered confidential.*

(c) The amount of the tax on the net proceeds of a mine and the amount of the tax on the property of the operation; or

(d) The number of persons employed by a mine.

(Added to NAC by Comm'n on Mineral Resources, eff. 2-18-88)

NAC 513.120 Annual reports by operators. (NRS 513.063) On or before *February 16* **{April 15}** of each year, each operator shall submit to the Administrator a report relating to the annual status and production of the mine for the preceding calendar year.



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## NEVADA DIVISION OF MINERALS SMALL BUSINESS IMPACT STATEMENT

August 5<sup>th</sup>, 2025

RE: Proposed Permanent Changes to Nevada Administrative Code Chapter 513

I, Robert Ghiglieri, Administrator, Nevada Division of Minerals, do hereby certify that, to the best of my knowledge or belief, a concerted effort was made to determine the impact of the proposed regulation on small businesses and that the information contained in the statement is accurate:

Pursuant to NRS 233B.0608, the proposed administrative regulation changes are not likely to (a) impose a direct or significant economic burden upon a small business, or (b) directly restrict the formation, operation, or expansion of a small business.

### **Background and purpose:**

The Division of Minerals (Division) records annually the production of each registered mining operation and operation for the production of oil, gas and geothermal energy in accordance with NRS Chapter 513.073 and NAC Chapter 513.070 and 513.120. These proposed changes advance the date required to submit annual production information to the Division to the same date the Nevada Department of Taxation requires all production and sale of mineral data for the annual Taxes on Patented Mines and Proceeds of Minerals (NRS362). The advanced date of reporting to the Division will result in an earlier publication of mineral production statistics available to the public sooner. As part of the Division's due diligence, a small business impact questionnaire was developed to seek input from the State of Nevada's mining, oil, and gas operators on the proposed changes.

### **Statement of methods used in determining the impact of the proposed regulation on a small business:**

The Division developed a digital questionnaire which presented the proposed modifications to NAC 513 and asked whether each change would impact a small business in accordance with NRS 233B.0608. The survey was transmitted by email to 212 unique email addresses associated with 196 businesses or individuals; the list of addresses is maintained by the Division for its annual production reporting mailout. These companies would be the most affected by any changes to the submittal deadline. The Division received zero responses to this questionnaire.

### **Evaluation of Impact:**

Division staff reviewed the proposed modifications, lack of survey responses and concluded they will not impose a direct or significant economic burden upon a small business, or directly restrict the formation, operation, or expansion of a small business.

Respectfully,

A handwritten signature in blue ink, appearing to read 'R. English', with a long horizontal flourish extending to the right.

ROBERT ENGLISH  
Administrator  
Nevada Division of Minerals

## AGENCY DRAFT

### PROPOSED ADMINISTRATIVE REGULATIONS OF THE NEVADA DIVISION OF MINERALS

#### CHAPTER 519A

#### Chapter 519A - Reclamation of Land Subject To Mining Operations or Exploration Projects

EXPLANATION - Language proposed for removal in red and bracketed - **{remove}**, additions in blue italics - *addition*

AUTHORITY: NRS 519A & NRS 513

**NAC 519A.570 Administration by Division; application for participation; waiver or exception from certain requirements. (NRS 513.063, 519A.290)**

1. The Division will administer the bond pool.
2. A person who wishes to participate in the bond pool must complete an application on a form provided by the Division and submit any relevant information or supporting documents requested by the Division.
3. Except as otherwise provided in subsection 5, an application to participate in the bond pool must include a statement by the applicant and documentation that:
  - (a) Indicates whether the applicant has ever forfeited a bond or surety held for the reclamation of mined land and, if so, the location of the operation for which the bond or surety was forfeited and the circumstances of the forfeiture.
  - (b) Lists the location, scale and any other pertinent details of the previous mining or exploration activities of the applicant that required reclamation performance bonding during the preceding 10 years.
  - (c) Shows the structure of the business organization and the financial status of the applicant at the time of application. Except as otherwise provided in subsection 4, the documentation must include:
    - (1) An organizational chart naming any parent company;
    - (2) Current and long-term assets;
    - (3) Current and long-term liabilities;
    - (4) The net worth of the business organization; and
    - (5) Evidence that the financial statements have been **{reviewed}** *compiled* by a certified public accountant and are a fair representation of the financial status of the applicant.
4. **{The Administrator may waive the requirements of subparagraph (5) of paragraph (c) of subsection 3 for an applicant who:**
  - (a) **Applies for bond coverage of \$10,000 or less; and**
  - (b) **Submits to the Administrator} (6) a signed and notarized affidavit stating under penalty of perjury that the information provided by the applicant pursuant to subparagraphs (2), (3) and (4) of paragraph (c) of subsection 3 is true.**

4. {5.} An applicant is not required to comply with the provisions of subsection 3 when applying for a bond for a notice-level project.

(Added to NAC by Dep't of Minerals, eff. 10-9-90; A 9-16-92; A by Div. of Minerals, 11-14-97; A by Comm'n on Mineral Resources by R044-19, 12-30-2019)

DRAFT



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## NEVADA DIVISION OF MINERALS SMALL BUSINESS IMPACT STATEMENT

August 6<sup>th</sup>, 2025

RE: Proposed Permanent Changes to Nevada Administrative Code Chapter 519A

I, Robert Ghiglieri, Administrator, Nevada Division of Minerals, do hereby certify that, to the best of my knowledge or belief, a concerted effort was made to determine the impact of the proposed regulation on small businesses and that the information contained in the statement is accurate:

Pursuant to NRS 233B.0608, the proposed administrative regulation changes are not likely to (a) impose a direct or significant economic burden upon a small business, or (b) directly restrict the formation, operation, or expansion of a small business.

### **Background and purpose:**

The Division of Minerals (Division) administers the Nevada Performance Reclamation Bond Pool (Bond Pool) in accordance with NRS Chapter 519A.290 and NAC Chapter 519A.510 - .630, inclusive. The Division is proposing modifications to NAC 519A.570 in accordance with Executive Order EO 2023-003. These proposed changes specify a lower financial review threshold necessary to apply for a bond with the Bond Pool in lieu of a signed affidavit affirming the submitted information is true and correct to the best of the submitter's knowledge. As part of the Division's due diligence, a small business impact questionnaire was developed to seek input from the State of Nevada's current and past Bond Pool participants and mining operators on the proposed changes.

### **Statement of methods used in determining the impact of the proposed regulation on a small business:**

The Division developed a digital questionnaire which presented the proposed modifications to NAC 519A and asked whether the change to NAC 519A.570 would impact a small business in accordance with NRS 233B.0608. The questionnaire was transmitted by email to 212 unique email addresses associated with 196 businesses or individuals; the list of addresses is maintained by the Division for its annual production reporting mailout, and current and former Bond Pool participants. The Division received zero responses to this questionnaire.

### **Evaluation of Impact:**

The proposed modification to NAC 519A.570 is meant to ease the burden on junior and mid-level exploration and mining companies, most of which are small businesses, in applying for bond coverage through the Nevada Reclamation Performance Bond Pool. Changing the requirement from a financial

review to a financial compilation removes the requirement for companies to use a third-party CPA to prepare financial documents. The use of an affidavit allows the Division to ensure proper financial filings are submitted without causing an undue burden on the applicant.

Division staff reviewed the proposed modifications and concluded they will not impose a direct or significant economic burden upon a small business, or directly restrict the formation, operation, or expansion of a small business.

Respectfully,

A handwritten signature in blue ink, appearing to read 'R. Gnigneri', with a long horizontal flourish extending to the right.

Robert Gnigneri  
Administrator  
Nevada Division of Minerals

## AGENCY DRAFT

### PROPOSED ADMINISTRATIVE REGULATIONS OF THE NEVADA DIVISION OF MINERALS

#### CHAPTER 522

#### Oil & Gas

EXPLANATION - Language proposed for removal in red and bracketed - {remove}, additions in blue italics - *addition*

AUTHORITY: NRS 522 & NRS 513

**NAC 522.210 Application for permit to drill; approved permits available on Internet. (NRS 522.040, 522.119)**

1. Before any well is spudded in or drilled for oil or gas, application must be made to and a permit obtained from the Division.
2. The application must be made on Form 2, properly completed and accompanied by Form 1, *and* the required fee {and a location plat prepared by a land surveyor licensed in Nevada}. Evidence of a federal bond for drilling on a federal lease must be included in the space provided on Form 2. The source and estimated volume of water required for drilling each well must be included with the application.
3. If the well is to be drilled on state or private land, Form 3 or 3a, properly completed, must accompany the application.
4. The Division will, upon the approval of an application for a permit to drill or a sundry notice (Form 4) for a permit to conduct a hydraulic fracturing operation, make a copy of the permit available on the Internet website maintained by the Division.

[Div. of Mineral Res., § 203, eff. 12-20-79] — (NAC A by Dep't of Minerals, 7-22-87; A by Comm'n on Mineral Resources by R011-14, 10-24-2014)

**NAC 522.215 Cuttings: Requirements for permit; availability and use; notification of shortage. (NRS 522.040)** The taking of cuttings and the filing thereof is a condition for approval of the drilling permit, and this condition will be stated on the permit. A minimum of two 15-milliliter sets of cuttings per sampling interval must be cleaned, dried and placed in sample envelopes, and the cuttings and a split of any core submitted to the Bureau of Mines and Geology *within 90 days after* {as soon as} the drilling of the well is complete. The Bureau shall remove a 15-milliliter set and place the set in permanent storage. The rest of the cuttings must be made available for public inspection and testing at that time or, if the records concerning the well are to be kept confidential pursuant to [NAC 522.540](#), upon the expiration of the period of confidentiality. Destructive tests may be performed on the cuttings made available for public inspection and testing. The Administrator of the Division must be notified by the Bureau of any sample envelopes containing less than 5 milliliters of cuttings.

[Div. of Mineral Res., § 204, eff. 12-20-79] — (NAC A by Dep't of Minerals, 9-16-92)

**NAC 522.232 Duties of operator.** ([NRS 522.040](#), [522.119](#)) An operator of an geothermal well shall:

1. Maintain a copy of the approved drilling permit at the site of the well during the operation of the well, including, without limitation, during the stages of drilling, hydraulic fracturing, reconditioning and completion.

2. Not less than 24 hours before a well is spudded for oil or gas, notify the Division by telephone or electronic mail.

3. Not less than 24 hours before installing or cementing casing, installing any equipment for the prevention of a blowout or conducting a formation integrity test, notify the Division by telephone or electronic mail.

4. Ensure that the casing installed in the well meets the minimum specifications for casing prescribed by the American Petroleum Institute in Specification 5CT, "Specification for Casing and Tubing, {Ninth} *Eleventh* Edition," or by its successor organization, or as may be otherwise prescribed by the Administrator.

**{5. Notify the Division if any casing or casing material has been previously used in a hydraulic fracturing operation or in any other oil or gas well.}**

**5 {6}.** Ensure that the cementing of each casing string meets the minimum specifications prescribed by the American Petroleum Institute in Specification 10A, "Specification for Cements and Materials for Well Cementing, Twenty-*Fifth*{Fourth} Edition," or by its successor organization, or as may be otherwise prescribed by the Administrator.

**6 {7}.** Store and contain all materials at the site of the well in a safe and orderly manner.

**7 {8}.** Manage spills or releases in the manner prescribed by the Division of Environmental Protection pursuant to [chapter 445A](#) of NRS and [chapter 445A](#) of NAC.

**8 {9}.** Except as otherwise provided in subsection 3 of [NAC 522.728](#), contain all liquids that are returned to the surface and discharged from the wellbore in the manner prescribed by the Division of Environmental Protection pursuant to [chapter 445A](#) of NRS and [chapter 445A](#) of NAC. A reserve pit for drilling liquids must not subsequently be used for the discharge of wellbore liquids during the testing of the well without the prior approval of the Administrator.

**9 {10}.** If an unintentional mechanical failure of the well or an uncontrolled flow or spill from the well site occurs, immediately notify:

(a) The Division at the telephone number of the Division.

(b) The Division of Environmental Protection at the spill reporting hotline maintained on its Internet website.

An operator may obtain information on the types of spills which must be reported pursuant to this subsection at the Internet website <https://ndep.nv.gov> **{[http://ndep.nv.gov/BCA/spil\\_rpt.htm](http://ndep.nv.gov/BCA/spil_rpt.htm)}.}**

(Added to NAC by Comm'n on Mineral Resources by R011-14, eff. 10-24-2014)

**NAC 522.234 Well control and safety; equipment for prevention of blowout.** ([NRS 522.040](#), [522.119](#))

1. An operator shall take all precautions which are necessary to keep wells under control and operating safely at all times. Well control and wellhead assemblies used in an oil or gas well must meet the minimum specifications for assemblies prescribed by the American Petroleum Institute in Standard 53, "**{Blowout Prevention Equipment Systems for Drilling Wells, Fourth} *Well Control***

*Equipment Systems for Drilling Wells, Fifth Edition,*” or by its successor organization, or as may be otherwise prescribed by the Administrator.

2. Equipment for the prevention of a blowout which is capable of shutting in the well during operation must be installed on the surface casing and maintained in good operating condition at all times. The equipment must have a rating for pressure greater than the maximum anticipated pressure at the wellhead. The equipment must include casing outlet valves with adequate provisions for mud kill and bleed-off lines of appropriate size and working pressure.

3. An operator shall test the equipment for the prevention of a blowout under pressure immediately after installing the casing and the equipment at the wellhead. A representative of the Division must observe the test in person or otherwise approve the results of the test before the operator drills the shoe out of the casing. An operator shall notify the Division not less than 24 hours before conducting a test pursuant to this subsection.

4. The operator shall submit to the Division the pressure data and supporting information for the equipment for the prevention of a blowout as soon as practicable after the conclusion of the test. The operator shall record the results of each test in the daily drilling log of the operator.

(Added to NAC by Comm'n on Mineral Resources by R011-14, eff. 10-24-2014)

**NAC 522.345 Utilization of gas. (NRS 522.040)**

{1. Gas from an oil well may be used for:

- (a) Light or fuel;
- (b) Efficient manufacture of chemicals;
- (c) Reinjection to increase the ultimate recovery of hydrocarbons or for storage;
- (d) The extraction of liquid hydrocarbons from the gas if the gas is not wasted; or
- (e) The artificial lifting of oil from a pool if all gas returned to the surface is then used without waste.}

1 {2}. No gas from a gas well may be permitted to escape into the air without the approval of the Division except:

- (a) When required for safety;
- (b) When required for initial testing of a well; or
- (c) To lift oil artificially from a pool in cases of operational necessity if the escape is permitted for no more than 5 days within any 30-day period.

2 {3}. The disposition of gas produced by each gas well must be reported each month on Form 7.

[Div. of Mineral Res., § 410, eff. 12-20-79] — (NAC A by Dep't of Minerals, 7-22-87)

**NAC 522.495 Form 2: Application for permit to drill. (NRS 522.040)**

1. A person who desires to drill any oil or gas well must file Form 2, properly completed, with the Division.

{2. The location plat required by this section must be of convenient size, and must have the location of the proposed well within a 40-acre legal subdivision by an accurate course and distance tie to an established corner of a section or quarter section. The plat must contain a full description of the corner to which the tie is made, together with all markings thereon. Ties to offset section or quarter corners on township lines must also show the nearest corner of the adjoining township together with the offset distance. Lots within a lotted section must be shown and designated. The

plat must indicate the method used in obtaining all bearings and must show the declination used for compass bearings and the source of the bearing if an angle is turned from a line of known bearing. The person who prepares the plat must note on the plat whether solar or polaris observations have been used.}

[Div. of Mineral Res., § 704 subsecs. 1 & 2, eff. 12-20-79] — (NAC A by Dep't of Minerals, 7-22-87; A by Div. of Minerals by R081-15, 12-21-2015)

**NAC 522.510 Form 5: Well completion report. (NRS 522.040)**

1. Form 5, the well completion report, must be filed for all wells drilled in Nevada within 30 days after drilling operations are completed. In the case of a dry hole, this report may accompany Form 4. If production will not begin within 30 days after drilling operations are completed:

(a) Form 5 is not required to include information regarding the production of the well; and

(b) An additional Form 5 must be filed with the Division within 30 days after production begins at the well that includes information regarding the production of the well.

2. Two copies of all logging surveys run in the wellbore by the operator must be filed with the Division. The Division will file one of the sets with the Bureau of Mines and Geology. The copy at the Bureau will be available for public inspection when the records are no longer confidential. *A digital copy may be submitted to the Division in lieu of two paper copies.*

[Div. of Mineral Res., § 707, eff. 12-20-79] — (NAC A by Dep't of Minerals, 7-22-87; A by Div. of Minerals by R081-15, 12-21-2015)

**NAC 522.515 Form 7: Producer's monthly report. (NRS 522.040)**

1. A *digital or hardcopy* report of the production and sales of all oil, gas and water must be filed **{in quadruplicate}** with the Division on or before the last day of the month following the month for which the report is made. **{Two copies of the report must be filed with the State Treasurer with the remittance of the production tax. One copy must be retained by the producer.}**

2. All wells on a production status or shut-in for any part of the month must be included in the monthly report.

[Div. of Mineral Res., § 708, eff. 12-20-79] — (NAC A by Dep't of Minerals, 7-22-87)



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## NEVADA DIVISION OF MINERALS SMALL BUSINESS IMPACT STATEMENT

August 6<sup>th</sup>, 2025

RE: Proposed Permanent Changes to Nevada Administrative Code Chapter 522

I, Robert Ghiglieri, Administrator, Nevada Division of Minerals, do hereby certify that, to the best of my knowledge or belief, a concerted effort was made to determine the impact of the proposed regulation on small businesses and that the information contained in the statement is accurate:

Pursuant to NRS 233B.0608, the proposed administrative regulation changes are not likely to (a) impose a direct or significant economic burden upon a small business, or (b) directly restrict the formation, operation, or expansion of a small business.

### **Background and purpose:**

The Division of Minerals (Division) regulates the exploration for and production of oil and natural gas in accordance with NRS Chapter 522 and NAC Chapter 522.010-730, inclusive. The Division is proposing modifications to NAC 522 in accordance with Executive Order EO 2023-003. As part of the Division's due diligence, a small business impact questionnaire was developed to seek input from the State of Nevada's oil and gas operators on the proposed changes.

### **Statement of methods used in determining the impact of the proposed regulation on a small business:**

The Division developed a digital questionnaire which presented the proposed modifications to NAC 522 and asked whether each change would impact a small business in accordance with NRS 233B.0608. The questionnaire was transmitted by email to the four operating oil and gas operators within the state. The Division received one response to the questionnaire, which stated that the business did not qualify as a small business as defined by NRS 233B.0382. Division program and administrative staff internally reviewed the proposed modifications and concluded they will not impose a direct or significant economic burden upon a small business, or directly restrict the formation, operation, or expansion of a small business.

### **Evaluation of impact:**

The proposed modifications to NAC 522 are meant to streamline or remove burdensome regulations on oil and gas operators within the state. NAC 522.210 removed language requiring a location plat prepared by a licensed surveyor; NAC 522.215 pushed back the date operators are required to submit drill cuttings to the Nevada Bureau of Mines and Geology from immediately to 90 days after well completion; NAC 522.232

removed the requirement to notify the Division if drill casing was reused in hydraulic fracturing operations; NAC 522.345 removed language specifying what gas could be used for; NAC 522.495 removed the language specifying the requirements of a surveyed location plat; NAC 522.510 added language allowing operators to submit digital copies of well surveys; and NAC 522.515 removed language requiring multiple paper copies of reports to be submitted, allowing one digital report.

Division staff reviewed the proposed modifications and concluded they will not impose a direct or significant economic burden upon a small business, or directly restrict the formation, operation, or expansion of a small business.

Respectfully,

A handwritten signature in blue ink, appearing to read 'R Singler', with a long horizontal flourish extending to the right.

ROBERT SINGLER  
Administrator  
Nevada Division of Minerals

## AGENCY DRAFT

### PROPOSED ADMINISTRATIVE REGULATIONS OF THE NEVADA DIVISION OF MINERALS

#### CHAPTER 534A

#### Geothermal

EXPLANATION - Language proposed for removal in red and bracketed - {remove}, additions in blue italics - *addition*

AUTHORITY: NRS 534A & 513

#### Completion Defined

A geothermal well is completed 30 days after drilling operations have ceased and the well is capable of producing a geothermal resource or being utilized as a service well, unless drilling operations are resumed before the end of the 30- day period.

### CHAPTER 534A - GEOTHERMAL RESOURCES

#### GENERAL PROVISIONS

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<u>534A.063</u>	“Observation well” defined.
<u>534A.064</u>	“Operator” defined.
<u>534A.065</u>	“Person” defined.
<u>534A.066</u>	“Production well” defined.
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<u>534A.XXX</u>	<i>“Stimulation” defined</i>
<u>534A.069</u>	“Thermal gradient well” defined.
<u>534A.083</u>	“Well bore” defined.
<u>534A.085</u>	“Well log” defined.
<u>534A.110</u>	Drilling rig: License to operate. [Replaced in revision by <u>NAC 534A.188.</u> ]

<u>534A.170</u>	Types of wells.
<u>534A.173</u>	“Natural heat of the earth” construed for purposes of <u>NRS 534A.010</u> .
<u>534A.175</u>	Authority of Administrator to grant exception to certain requirements of chapter.
<u>534A.180</u>	Applicability of <u>NAC 534A.170</u> to <u>534A.690</u> , inclusive.

#### LICENSES, PERMITS, FEES AND OTHER REQUIREMENTS FOR DRILLING

<u>534A.185</u>	License required to drill geothermal well that uses water consumptively and geothermal domestic well.
<u>534A.188</u>	Drilling rig: License to operate in compliance with licensing procedures of State Contractors’ Board.
<u>534A.190</u>	Application for permit for individual geothermal well.
<u>534A.193</u>	Application for permit for geothermal wells in a project area.
<u>534A.196</u>	Application for permit for injection well; operator required to obtain permit pursuant to Nevada Water Pollution Control Law before operating well.
<u>534A.200</u>	Location of well: Limitations; application for exception.
<u>{534A.205}</u>	<b>Location of well: Survey required; filing of certified plat of location.</b>
<u>534A.210</u>	Fees for permits for individual geothermal wells.
<u>534A.212</u>	Fees for permits for geothermal wells in project areas.
<u>534A.214</u>	Annual fee for industrial or commercial geothermal production well, geothermal injection well or thermal gradient or observation well.
<u>534A.216</u>	Payment of fee based on <b>total measured length {depth}</b> of well.
<u>534A.220</u>	Expiration of permits.
<u>534A.240</u>	Assignment of permits.
<u>534A.250</u>	Bond: Filing requirements; amount; form; effect of transfer of ownership of well; duration.
<u>534A.260</u>	Requirements for casing; alternate requirements for surface casing; exception for certain thermal gradient wells.
<u>534A.270</u>	Prevention of blowout; testing of equipment for prevention of blowout; submission of test data and supporting information to Division; recording of results in daily drilling log.
<u>534A.280</u>	Measurements of temperature requirement for mud cooling equipment.
<u>534A.310</u>	Taking of cuttings; submission to Bureau of Mines and Geology.
<u>534A.330</u>	Identification of producing wells by sign; modification for good cause; assignment of U.S. Well Number.

NAC 534A.196 “Application for permit for injection well; operator required to obtain permit pursuant to Nevada Water Pollution Control Law before operating well.”

k.NAC 534A.205 “Location of well: Survey required; filing of certified plat of location.”

l.NAC 534A.310 “Taking of cuttings; submission to Bureau of Mines and Geology”

m.NAC 534A.560 “Maintenance of records by operator; authority of Division to require additional information and inspect records.”

#### *Stimulation & Induced Seismicity*

<u>534A.7xx</u>	<i>Definitions.</i>
<u>534A.7xx</u>	<i>“Area of review” defined.</i>
<u>534A.7xx</u>	<i>“Available water source” defined.</i>
<u>534A.7xx</u>	<i>“Sampling area” defined.</i>

534A.7xx	<i>“Water source” defined.</i>
534A.7xx	<i>Applicability.</i>
534A.7xx	<i>Stimulation Baseline sampling and monitoring; exceptions.</i>
534A.7xx	<i>Induced Seismicity Baseline Monitoring. Forecast, and Risk-Based Monitoring Plan.</i>
534A.7xx	<i>Induced Seismicity Reporting.</i>
534A.7xx	<i>Induced Seismicity Orders.</i>
534A.7xx	<i>Application to drill; area of review.</i>
534A.7xx	<i>Additional requirements for geothermal wells planned to be stimulated, including casings and casing strings.</i>
534A.7xx	<i>Duties of operator.</i>
534A.7xx	<i>Request to conduct to simulate a geothermal well drilled and spudded before Month Day, Year.</i>

## GENERAL PROVISIONS

**NAC 534A.010 Definitions.** (NRS 513.063, 534A.090) As used in this chapter, unless the context otherwise requires, the words and terms defined in NAC 534A.012 to 534A.085, inclusive, have the meanings ascribed to them in those sections.

(Supplied in codification; A by Comm’n on Mineral Resources, 11-12-85; R032-19, 12-30-2019)

**NAC 534A.012 “Administrator” defined.** (NRS 513.063, 534A.090) “Administrator” means the Administrator of the Division.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85) — (Substituted in revision for NAC 534A.039)

**NAC 534A.015 “Annular space” and “annulus” defined.** (NRS 513.063, 534A.090) “Annular space” or “annulus” means the space between the walls of the well as drilled and the casing or between a permanent casing and the borehole.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.020 “Aquifer” defined.** (NRS 513.063, 532.120, 534.020, 534.110, 534A.090) “Aquifer” means a geological formation or structure that stores or transmits water.

[St. Engineer, Exploration Drilling Reg. part Art. I, eff. 12-13-77] — (NAC A by Comm’n on Mineral Resources by R032-19, 12-30-2019)

**NAC 534A.031 “Blowout” defined.** (NRS 513.063, 534A.090) “Blowout” means an uncontrolled escape of fluids and gases from a geothermal well.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.033 “Casing” defined.** (NRS 513.063, 534A.090) “Casing” means the conduit required to prevent waste and contamination of the groundwater, the geothermal resource, or both, and to hold the formation open during the construction or use of the well.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.035 “Commission” defined.** (NRS 513.063, 534A.090) “Commission” means the Commission on Mineral Resources.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.037 “Division” defined. (NRS 513.063, 534A.090)** “Division” means the Division of Minerals of the Commission on Mineral Resources.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

*NAC 534A.xxx “Enhanced Geothermal” defined. “Enhanced Geothermal” means the use of stimulation as defined under NAC 534A.XXX (Stimulation) to increase the recovery of geothermal fluids.*

**NAC 534A.040 “Geothermal resource” defined. (NRS 532.120, 534.020, 534.110)** “Geothermal resource” has the meaning ascribed to it in NRS 534A.010.  
[St. Engineer, Exploration Drilling Reg. part Art. I, eff. 12-13-77]

**NAC 534A.045 “Guide shoe” defined. (NRS 513.063, 534A.090)** “Guide shoe” means a short, heavy cylindrical section which is rounded at the bottom and placed at the end of a string of casing.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

*NAC 534A.XXX “Induced Seismicity” defined. (NRS 513.063, 534A.090) “Induced Seismicity” means earthquakes or seismic events caused or triggered by human activities relating to enhanced geothermal operations, rather than natural tectonic processes.*

**NAC 534A.061 “Injection well” defined. (NRS 513.063, 534A.090)** “Injection well” means any well used to dispose of fluids derived from geothermal resources into an underground reservoir.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.063 “Observation well” defined. (NRS 513.063, 534A.090)** “Observation well” means any well used to observe the level of the water and its temperature, pressure and chemistry in a geothermal field.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85; A by R032-19, 12-30-2019)

**NAC 534A.064 “Operator” defined. (NRS 513.063, 534A.090)** “Operator” means the person who has the right to drill and operate a geothermal well.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.065 “Person” defined. (NRS 513.063, 534A.090)** “Person” includes any trust, estate, agency or governmental entity.  
(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.066 “Production well” defined. (NRS 513.063, 534A.090)** “Production well” means a geothermal well which is used to transmit fluids derived from geothermal resources to the surface where the fluids are available for industrial, commercial or domestic purposes.  
(Added to NAC by Comm’n on Mineral Resources, eff. 12-16-92)

**NAC 534A.067 “Reservoir” defined.** (NRS 513.063, 534A.090) “Reservoir” means an aquifer or combination of aquifers or porous zones containing a common geothermal or groundwater resource.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

***NAC 534A.XXX “Stimulation” defined.*** (NRS 513.063, 534A.090) *“Stimulation” means the process of pumping a fluid into or beneath the surface of the earth to induce fractures in rock to promote or enhance the production or recovery of geothermal fluids.*

**NAC 534A.069 “Thermal gradient well” defined.** (NRS 513.063, 534A.090) “Thermal gradient well” means a well drilled to obtain a temperature gradient reading in an area of potential geothermal resources.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.083 “Well bore” defined.** (NRS 513.063, 534A.090) “Well bore” means a cylindrical hole made in the construction or drilling of a well.

(Added to NAC by Comm’n on Mineral Resources by R032-19, eff. 12-30-2019)

**NAC 534A.085 “Well log” defined.** (NRS 513.063, 534A.090) “Well log” means a written record progressively describing the strata, water and geothermal resources encountered in drilling a well. The term includes all relevant data maintained by the operator including volume, pressure, rate of fill-up and record of casing.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85)

**NAC 534A.110 Drilling rig: License to operate.** (NRS 532.120, 534.020, 534.110)  
[Replaced in revision by NAC 534A.188.]

**NAC 534A.170 Types of wells.** (NRS 513.063, 534A.090) A geothermal well is considered by the Division as:

1. A geothermal domestic well if the well is used solely for domestic heating purposes by one or more single family dwellings on a single parcel of land under the same ownership.
2. A commercial well if the well is used:
  - (a) By a commercial user who does not produce geothermal heat for sale or the generation of power; or
  - (b) Primarily to provide geothermal resources on a commercial basis for any purpose other than the generation of power.
3. An industrial well if the well primarily is used to generate power.

(Added to NAC by Comm’n on Mineral Resources, eff. 11-12-85; A by R032-19, 12-30-2019)

**NAC 534A.173 “Natural heat of the earth” construed for purposes of NRS 534A.010.** (NRS 513.063, 534A.090) For the purposes of NRS 534A.010, “natural heat of the earth” means energy obtained from any medium used to transfer heat, the temperature of which is greater than 85 degrees Fahrenheit at the surface.

(Added to NAC by Comm’n on Mineral Resources by R032-19, eff. 12-30-2019)

**NAC 534A.175 Authority of Administrator to grant exception to certain requirements of chapter.** (NRS 513.063, 534A.090) Except for any fee required pursuant to NAC 534A.210 to 534A.216, inclusive, or 534A.540, upon written application and good cause shown, the Administrator may grant an exception to any of the requirements of this chapter.

(Added to NAC by Comm'n on Mineral Resources by R032-19, eff. 12-30-2019)

**NAC 534A.180 Applicability of NAC 534A.170 to 534A.690, inclusive.** (NRS 513.063, 534A.090)

1. Only the provisions of NAC 534A.170 to 534A.690, inclusive, listed below apply to geothermal domestic wells:

- (a) NAC 534A.190;
- (b) NAC 534A.200;
- (c) NAC 534A.210;
- (d) NAC 534A.220;
- (e) Paragraphs (a) and (e) of subsection 1 of NAC 534A.260;
- (f) Subsections 1 and 2 of NAC 534A.270;
- (g) NAC 534A.280;
- (h) Subsection 3 of NAC 534A.330;
- (i) NAC 534A.420;
- (j) NAC 534A.470;
- (k) NAC 534A.490 (except subsection 9 of that section);
- (l) NAC 534A.500;
- (m) NAC 534A.465;
- (n) Subsections 5 and 6 of NAC 534A.540;
- (o) NAC 534A.550;
- (p) NAC 534A.560; and
- (q) NAC 534A.590 to 534A.690, inclusive.

2. All provisions of NAC 534A.170 to 534A.690, inclusive, apply to commercial wells except subsection 1 of NAC 534A.200.

3. Except as otherwise specifically provided in NAC 534A.170 to 534A.690, inclusive, all of the provisions apply to industrial wells.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; 8-22-94; R057-15, 12-21-2015; R032-19, 12-30-2019)

**NAC 534A.190 Application for permit for individual geothermal well.** (NRS 513.063, 534A.070, 534A.090) An application for a permit to drill or operate an individual geothermal well must be submitted to the Division on a form provided by the Administrator. Except as otherwise provided in NAC 534A.196, an application must:

1. Include a statement of the purpose, *estimated top and bottom hole locations, as well as planned well trace*, and estimated depth of the well;
2. Include a description of the kind of casing, equipment for the prevention of a blowout and drilling rig which will be used;
3. Include the name of the owner of the land or designated lot on which the well will be located and the owner of the geothermal resource;
4. Include the name and address of the operator and drilling contractor;
5. Be accompanied by the bond required pursuant to NAC 534A.250;

6. Include a description of the location of the proposed well by the quarter-quarter section, section, township and range. For domestic and commercial wells a street address may be used, if available;

7. Include the global positioning coordinates of the location of the well which:

(a) Are identified by latitude and longitude using decimal degrees or coordinates of the Universal Transverse Mercator system; and

(b) Specify the datum used; and

8. Include the business identification number assigned to the operator by the Secretary of State.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; R032-19, 12-30-2019)

**NAC 534A.193 Application for permit for geothermal wells in a project area. (NRS 513.063, 534A.090)** An application for a permit to drill or operate geothermal wells in a project area must be submitted to the Division. Except as otherwise provided in NAC 534A.196, the application must:

1. Include a statement of the number, purpose, *estimated top and bottom hole locations, as well as planned well trace*, and estimated depth, of the proposed wells in the project area;

2. Include a description of the kind of casing, equipment for the prevention of a blowout and drilling rig which will be used;

3. Include the name of the owner of the land or designated lots on which the proposed wells will be located;

4. Include the name of the owner of the geothermal resource;

5. Include the name and address of the operator and drilling contractor;

6. Include a description and map of the project area by section, township and range; and

7. Be accompanied by the bond required by NAC 534A.250.

(Added to NAC by Comm'n on Mineral Resources, eff. 12-16-92; A 8-22-94)

**{NAC 534A.205 Location of well: Survey required; filing of certified plat of location. (NRS 513.063, 534A.090)}**

1. Except as otherwise provided in subsection 3, the location of an individual geothermal well or the geothermal wells in a project area must be surveyed by a professional land surveyor who is licensed pursuant to chapter 625 of NRS.

2. Except as otherwise provided in subsection 3, a certified plat of the location must be filed with the Division within 30 days after the completion of the construction of the well. The plat must:

(a) Be of a standard size;

(b) Show the location of any designated lots; and

(c) Contain a description of the location of the proposed well:

(1) Within a 40-acre legal subdivision; or

(2) Which includes an accurate course and distance tied to an established corner of a section or quarter section and a full description of the corner to which the tie is made, together with all markings thereon.

3. The provisions of this section do not apply to a thermal gradient well.}

**NAC 534A.210 Fees for permits for individual geothermal wells. (NRS 513.063, 534A.080, 534A.090)** A person who files an application for a permit to drill, {or} operate, *or stimulate* an individual geothermal well shall pay to the Commission a fee according to the following schedule:

<b>INDUSTRIAL WELLS</b>	
Production Well.....	\$ {500} 750
Injection Well.....	{500} 750
Observation Well.....	{300} 450
Thermal Gradient Well.....	{100} 200
<i>Stimulation operations as put forth in the permit application of a Geothermal Well (Separate of production or injection fee).....</i>	<i>1,500</i>
<b>COMMERCIAL WELLS</b>	
Production Well.....	
Injection Well.....	{200} 300
	{200} 300
<b>GEOHERMAL DOMESTIC WELLS.....</b>	
	{50} 100

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; R032-19, 12-30-2019)

**NAC 534A.212 Fees for permits for geothermal wells in project areas. (NRS 513.063, 534A.080, 534A.090)**

1. Except as otherwise provided in subsection 2, a person who files an application for a permit to drill or operate geothermal wells in a project area shall pay to the Commission an application fee of \$ {500} 750 and an additional fee per well according to the following schedule:

	First Well	Each Subsequent Well of the Same Type
Production Well	\$ {500} 750	\$ {300} 450
Injection Well	{500} 750	{300} 450
<i>Stimulation of Geothermal Well</i>	<i>1,500</i>	<i>900</i>
Observation Well	{300} 450	{150} 300
Thermal Gradient Well	{100} 200	{50} 150

2. A person who files an application for a permit to drill or operate a thermal gradient well in a project area need not pay the application fee, but shall pay the applicable additional fees listed in subsection 1.

(Added to NAC by Comm'n on Mineral Resources, eff. 12-16-92; A by R032-19, 12-30-2019)

**NAC 534A.214 Annual fee for industrial or commercial geothermal production well, geothermal injection well or thermal gradient or observation well. (NRS 513.063, 534A.080, 534A.090)** On or before January 31 of each year:

1. The owner of the geothermal resource or the operator of an industrial or commercial geothermal production well or geothermal injection well shall submit to the Division a fee of \$~~{600}~~ 800 for each well which produced or was used to dispose of fluids derived from geothermal resources into an underground reservoir during the preceding calendar year. The provisions of this subsection do not apply to an industrial well which produced fluids during the preceding calendar year if no power was generated at the well and the production was only for the purpose of testing the well.

2. The owner or operator of a thermal gradient or an observation well shall submit to the Division a fee of \$~~{100}~~ 200 for each such well unless the well has been abandoned and plugged. (Added to NAC by Comm'n on Mineral Resources, eff. 12-16-92; A by R069-99, 8-19-99; R057-15, 12-21-2015; R032-19, 12-30-2019)

**NAC 534A.216 Payment of fee based on total measured length {depth} of well. (NRS 513.063, 534A.080, 534A.090)** Within 30 days after the completion of the construction of a geothermal well listed in this section and the removal of the drill rig from the location of the well, the person who holds a permit to drill or operate an individual geothermal well or a permit to drill or operate geothermal wells in a project area shall pay to the Division a fee based on the total measured length {depth} of the well according to the following schedule:

	300 to 1,000 <i>{Feet Deep}</i> <i>Total</i> <i>Measured</i> <i>Length</i>	1,001 to 5,000 <i>{Feet Deep}</i> <i>Total</i> <i>Measured</i> <i>Length</i>	<i>{Over 5,000}</i> <i>5,001 to 10,000</i> <i>{Feet Deep}</i> <i>Total Measured</i> <i>Length</i>	<i>Over 10,000</i>  <i>Total</i> <i>Measured</i> <i>Length</i>
<b>INDUSTRIAL WELLS</b>				
Production Well	<del>1,000</del> 1,500	<del>2,000</del> 3,000	<del>2,500</del> 3,750	5,000
Injection Well	<del>1,000</del> 2,000	<del>2,000</del> 3,000	<del>2,500</del> 3,750	5,000
Observation Well	<del>300</del> 450	<del>500</del> 750	<del>2,500</del> 3,750	5,000
<b>COMMERCIAL WELL</b>	<del>200</del> 400	<del>200</del> 400	<del>200</del> 400	N/A

1. If the completion report and associated fee are not remitted to the Division within 30 days of completion, a 5% fee will be assessed for each month the report or fee are delinquent.

(Added to NAC by Comm'n on Mineral Resources, eff. 12-16-92; A by R032-19, 12-30-2019)

**NAC 534A.220 Expiration of permits. (NRS 513.063, 534A.090)** Unless operations have been commenced or the operator is proceeding with due diligence, a permit to drill an individual geothermal well or a permit to drill geothermal wells in a project area expires 24 months after the date on which it was issued unless extended by the Administrator for good cause shown.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92)

**NAC 534A.240 Assignment of permits. (NRS 513.063, 534A.090)**

1. A permit to drill or operate an individual geothermal well or a permit to drill or operate geothermal wells in a project area may be assigned, subject to the conditions of the permit, upon the written approval of the Administrator. The transferee must furnish a bond as provided in NAC 534A.250.

2. Approval by the Division of the transfer is the authority for release or cancellation by the transferor of his or her surety.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92)

**NAC 534A.250 Bond: Filing requirements; amount; form; effect of transfer of ownership of well; duration. (NRS 513.063, 534A.090)**

1. Except as otherwise provided in this section, the operator shall provide a sufficient bond in favor of the State of Nevada for each geothermal well, conditioned on the plugging of the well upon abandonment in accordance with NAC 534A.170 to 534A.690, inclusive. The bond must be:

(a) In the sum of:

- (1) For a thermal gradient well, not less than \$10,000; and
- (2) For a commercial or industrial well, not less than \$25,000.

(b) Submitted with the application for a permit to drill or operate an individual geothermal well or an application for a permit to drill or operate geothermal wells in a project area.

2. An operator may file a blanket bond, in the sum of at least \$100,000, to cover all wells to be drilled or operated by the operator in a project area for which the operator has received a permit pursuant to NAC 534A.193.

*3. If a project area includes one or more enhanced geothermal wells, the operator must file a blanket bond in the sum of at least \$300,000, to cover all wells to be drilled or operated by the operator in a project area for which the operator has received a permit pursuant to NAC 534A.190 to 534A.196 and 534A.XXX(Stimulation and Induced Seismicity section)*

**{3.} 4.** A bond must be:

- (a) In cash;
- (b) Issued by a surety authorized to do business in Nevada; or
- (c) In the form of a savings certificate or time certificate of deposit which is:
  - (1) Issued by a bank or savings and loan association operating in Nevada; and
  - (2) Payable to the State of Nevada.

**{4.} 5.** An operator who has deposited a performance bond with the Federal Government for wells drilled on federal property shall submit evidence of that bond with the Division.

~~{5.}~~ 6. If an operator transfers ownership of a well, the Division may review the bond filed pursuant to this section to determine whether the existing amount of the bond for the well is sufficient.

~~{6.}~~ 7. The bond required by this section must remain in effect until the well is properly abandoned, the surface is properly restored and the bond is formally released by the Division.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; R032-19, 12-30-2019)

**NAC 534A.270 Prevention of blowout; testing of equipment for prevention of blowout; submission of test data and supporting information to Division; recording of results in daily drilling log. (NRS 513.063, 534A.090)**

1. An operator shall take all precautions which are necessary to keep wells under control and operating safely at all times. Well control and wellhead assemblies used in any geothermal well must meet the minimum specifications for assemblies prescribed by the American Petroleum Institute, or its successor organization, in the most current edition of Standard 53, "Well Control Equipment Systems for Drilling Wells," or as may be otherwise prescribed by the Administrator. ~~{The most current edition is available by mail from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado 80112-5776, by telephone at (800) 854-7179 or at the Internet address <http://global.ihs.com>, for the price of \$160.}~~

2. Equipment for the prevention of a blowout, capable of shutting in the well during any operation, must be installed on the surface casing and maintained in good operating condition at all times. This equipment must have a rating for pressure greater than the maximum anticipated pressure at the wellhead. Equipment for the prevention of a blowout is required on any well where temperatures may exceed 200°F.

3. An operator shall test the equipment for the prevention of a blowout under pressure. A representative of the Division must observe the test in person or otherwise approve the results of the test before the operator drills the casing shoe out of the casing. An operator shall notify the Division not less than 24 hours before conducting a test pursuant to this subsection.

4. The operator shall submit to the Division the pressure data and supporting information for the equipment for the prevention of a blowout as soon as practicable after the conclusion of the test conducted pursuant to subsection 3. The operator shall record the results of each test in the daily drilling log of the operator.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A by R011-14, 10-24-2014; R032-19, 12-30-2019)

**NAC 534A.310 Taking of cuttings; submission to Bureau of Mines and Geology. (NRS 513.063, 534A.090)** The operator shall take two sets of cuttings at least every 30 feet. The cuttings and a split of any core must be:

1. Cleaned, dried, marked for location and depth and placed in envelopes; and
2. Submitted to the Bureau of Mines and Geology of the State of Nevada within ~~{30}~~ 90 days after the well is completed.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A by R032-19, 12-30-2019)

**INACTIVE WELLS; ABANDONMENT AND PLUGGING**

**NAC 534A.465 Inactive well: Order to show cause why well should stay open; declaration of abandonment and order to plug; notice to operator; effect of failure of operator to respond. (NRS 513.063, 534A.090)**

1. If a well is inactive for 2 years or more, the Administrator may issue an order to the operator to show cause as to why the well should remain open and that such action is consistent with:

- (a) The policies specified in NRS 445A.305 and 445B.100;
- (b) The purposes of chapters 533 and 534 of NRS; and
- (c) The purposes specified in chapter 501 of NRS.

2. If the Administrator finds that good cause has not been shown, the Administrator may declare the well abandoned and order the well to be plugged.

3. The Administrator shall send written notice of the order to plug the well to the operator by registered or certified mail with return receipt requested.

4. If the operator fails to respond in writing within 45 days after the written notice is mailed pursuant to subsection 3 with a plan for plugging the well and:

(a) The well is bonded by a federal agency, the Administrator must notify the federal agency and coordinate with the federal agency to ensure that the well is plugged.

(b) The well is not bonded by a federal agency, the Administrator may, without further notice, take such steps necessary to plug the well. The costs of plugging the well, including labor and material, may be paid from the bond filed pursuant to NAC 534A.250. Any costs above the bond are a lien upon the land on which the well is located.

*(c) If the Division takes action to plug any well(s) within a project area or individual well on private land, the Division will not issue any additional drilling permits to that owner of the geothermal resource or operator until the Division is made whole of the complete cost of plugging any well(s).*

(Added to NAC by Comm'n on Mineral Resources by R032-19, eff. 12-30-2019)

**NAC 534A.540 Permission to engage in certain activities; fee; report of progress or completion; release of nonconfidential information by Division. (NRS 513.063, 534A.080, 534A.090)**

1. A person shall not engage in an activity listed in subsection 3 or 4 without the permission of the Division.

2. The owner of the geothermal resource or operator shall submit an application for permission to engage in an activity listed in subsection 3 or 4 on Form 4 *or Form 4a* (Sundry Notices and Reports on Wells). Upon request, the Administrator may, as he or she deems appropriate in extraordinary circumstances, grant oral permission to engage in an activity listed in subsection 3 or 4. Oral permission to engage in an activity listed in subsection 3 or 4 does not relieve the owner of the geothermal resource or operator of his or her obligation to submit an application pursuant to this section.

3. The fee is \$~~{300}~~ *450* to file an application for permission to engage in any one of the following activities:

- (a) Increasing the depth of a well;
- (b) Testing of water shut-off;
- (c) Entering or opening a plugged well;
- (d) Shooting, acidizing or fracture treating *a non-enhanced geothermal well*;

- (e) Drilling in a direction which is not intended to be vertical, including directional drilling;
- (f) Changing the construction of a well bore or well, including:
  - (1) Placing a plug in the well bore or well; and
  - (2) Recovering or altering the casing;
- (g) Conducting a major work over or cleaning of a well; and
- (h) Any other proposed activity for which the Division:
  - (1) Conducts an extensive review;
  - (2) Conducts a field inspection; or
  - (3) Evaluates information or documentation regarding the construction of a well bore or well.

*(i) Minor modification to an Enhanced Geothermal Stimulation Permit*

4. The fee is \$~~{100}~~ 150 to file an application for permission to engage in any one of the following activities:

- (a) Extending a permit;
- (b) Changing the ownership of a well;
- (c) Changing the status of a well;
- (d) Changing the name of a well;
- (e) Changing the location of a proposed well; and
- ~~{(f) Abandoning and plugging a well.}~~

5. *The fee is \$1,500 to file an application for permission to engage in any one of the following activities:*

- (a) Requesting to Stimulate a previously drill well with approval under NAC534A.xxx (Request to stimulate a geothermal well drilled and completed before Month day, year (TBD).)*
- (b) Major modification to a Simulation permit*
- (c) Re-stimulate a previously stimulated well*

6. *There is no fee associated with the application for abandoning and plugging a well, however, an application to abandon and plug a well must be submitted to and approved by the Division prior to initiation of plugging and abandonment activities.*

~~{5.}~~ 7. The owner of the geothermal resource or operator shall report to the Division any progress regarding or the completion of an activity for which permission was required pursuant to this section and any supplemental history of the well.

~~{6.}~~ 8. In the case of a geothermal domestic well, the owner of the geothermal resource or the operator shall:

(a) Not engage in an activity listed in paragraph (a) or (c) of subsection 3, subparagraph (1) of paragraph (f) of subsection 3 or paragraph (f) of subsection 4 without the permission of the Division; and

(b) Submit to the Division an application for permission to engage in an activity listed in paragraph (a) or (c) of subsection 3, subparagraph (1) of paragraph (f) of subsection 3 or paragraph (f) of subsection 4. The owner or operator shall file the application on Form 4 *or Form 4a* (Sundry Notices and Reports on Wells) and is not required to pay a fee to file.

~~{7.}~~ 9. The Division may, as it deems appropriate, observe and release information which is not confidential regarding activities for which permission was required pursuant to this section.

(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; R057-15, 12-21-2015; R032-19, 12-30-2019)

**NAC 534A.550 Required filings: Report of completion; directional survey; lithologic log; well logs. (NRS 513.063, 534A.090)**

1. Within 30 days after the completion of the construction of a well, the owner of the geothermal resource or the operator shall file with the Division:
  - (a) A report setting forth the manner in which the well was completed on a form designated by the Division;
  - (b) For a directionally drilled well, a directional survey, which must include, without limitation, a plat obtained by the method used to survey the well;
  - (c) A lithologic log, which must include the lithologic characteristics and depths of the formations, the depths and temperatures of water-bearing and steam-bearing strata and the temperatures, chemical compositions and other characteristics of fluids encountered during drilling; and
  - (d) The following well logs, if applicable:

Well Log Type	Industrial or Commercial Production Well	Industrial or Commercial Injection Well	Geothermal Domestic Well	Thermal Gradient Well
Gamma or similar log	Required	Required	Submit if run	Submit if run
Cement bond log	Submit if run	Submit if run	Submit if run	Submit if run
Temperature log	Required	Required	Required	Required
Other logs	Submit if run	Submit if run	Submit if run	Submit if run

2. Within 30 days after the well is plugged, the operator shall file with the Division a well plugging report on a form designated by the Division.
3. The survey and well logs filed pursuant to subsection 1 must include **{two paper copies, one}** *a clear and concise digital copy of all logs* and for any electric logs, one copy in LASer (LAS) file format *or other readily accessible format*.
4. The Division shall file one set of the well logs filed pursuant to subsection 1 with the Bureau of Mines and Geology of the State of Nevada.  
(Added to NAC by Comm'n on Mineral Resources, eff. 11-12-85; A 12-16-92; R032-19, 12-30-2019)

***STIMULATION & INDUCED SEISMICITY***

***NAC 534A.7xx Definitions.*** *As used in NAC 534A.012 to 534A.170, inclusive, unless the context otherwise requires, the words and terms defined in NAC 534A.7xx to 534A.7xx (area of review to water source), inclusive, have the meanings ascribed to them in those sections.*

***NAC 534A.7xx “Area of review” defined.*** *“Area of review” means:*

1. *The area of land located within a radius of 1 mile of a proposed geothermal well and any surface projection of any lateral component of the wellbore that is proposed for stimulation; and*
2. *Any additional area of land prescribed by the Division or specified by an operator pursuant to subsection 3 of NAC 534A.xxx (Induced Seismicity Baseline Monitoring, Forecast, and Risk-Based Monitoring Plan).*

2. The area of land as defined under a permitted project area under NAC 534A.212 encompassing the proposed enhanced geothermal wells.

**NAC 534A.7xx “Available water source” defined.** “Available water source” means a water source for which the person who owns, holds or has the right of use to the water source has consented to the sampling and testing of the water source and to making the results of the sampling and testing available to the public.

**NAC 534A.7xx “Sampling area” defined.** “Sampling area” means the area of land located within a radius of 1 mile of a proposed geothermal well and any surface projection of any lateral component of the wellbore that is proposed for geothermal stimulation.

**NAC 534A.7xx “Water source” defined.** “Water source” means a water well or spring that is regulated by the Division of Water Resources of the State Department of Conservation and Natural Resources.

**NAC 534A.7xx Applicability.** Except as otherwise provided in NAC 534A.7xx (Request to conduct simulate a geothermal well drilled and spudded before Month day, year (TBD)), the provisions of NAC 534A.7xx to 534A.7xx(area of review to water source), inclusive, apply for each geothermal well for which the operator intends to engage in geothermal stimulation.

**NAC 534A.7xx Stimulation Baseline sampling and monitoring; exceptions.**

1. Except as otherwise provided in subsections 2 and 4, an operator shall collect an initial baseline sample and subsequent monitoring samples from each available water source, not to exceed four available water sources, located within the sampling area. If more than four available water sources are located within the sampling area, the operator shall select the four available water sources for sampling based on:

- (a) The proximity of the available water sources to the proposed geothermal well. Available water sources closest to the proposed geothermal well are preferred.

- (b) The orientation of the sampling locations relative to the available water sources. To the extent that the direction of the flow of groundwater is known or can reasonably be inferred, sample locations from both down-gradient and up-gradient locations are preferred over cross-gradient locations.

- (c) The depth of the available water sources. The sampling of the deepest of the available water sources is preferred.

- (d) The condition of the available water sources. An operator is not required to sample an available water source if the Administrator determines that the available water source is improperly maintained or nonoperational or has physical characteristics which would prevent the safe collection of a representative sample or which would require nonstandard sampling equipment.

- (e) The construction and use of the water source. If an operator constructs a temporary well or observation well within the sampling area to use as a water source for the purpose of supporting the drilling or operation of an geothermal well, the operator must include the water source as an available water source for the purpose of sampling and monitoring pursuant to this section.

2. An operator may, before a well is spudded or drilled for geothermal, request an exception from the requirements of this section by filing a sundry notice (Form 4) with the Administrator. The Administrator may grant the request for an exception if the Administrator finds that:

(a) No available water sources are located within the sampling area;  
(b) The only available water sources are unsuitable pursuant to paragraph (d) of subsection 1; or

(c) Each owner of a water source that is suitable for testing and located within the sampling area has refused to grant the operator access to the water source for sampling and additionally finds that the operator has made a reasonable and good faith effort to obtain the consent of the owner to conduct the sampling.

↳ An operator seeking an exception on the grounds set forth in paragraph (b) shall provide to the Administrator documentation of the conditions of each available water source which is deemed unsuitable. An operator seeking an exception on the grounds set forth in paragraph (c) shall provide to the Administrator documentation of the efforts of the operator to obtain the consent of each owner of a water source.

3. Except as otherwise provided in subsections 2 and 4, an operator shall collect from each available water source for which the operator is required to collect samples pursuant to this section:

(a) An initial sample during the 12-month period immediately preceding the commencement of stimulation at a geothermal well.

(b) A first subsequent sample, collected not earlier than 6 months but not later than 12 months after the commencement of stimulation. If a well that has been drilled produces geothermal fluids for a period of less than 6 months after the commencement of stimulation and the well is subsequently plugged and abandoned, or if the well is plugged and abandoned without having produced geothermal fluids after the commencement of stimulation, the operator shall collect each first subsequent sample at the time the well is plugged.

(c) A second subsequent sample, collected not earlier than 36 months but not later than 48 months after the commencement of stimulation. If a well that has been drilled produces geothermal fluids for a period of less than 60 months and the well is subsequently plugged and abandoned, the operator shall collect each second subsequent sample at the time the well is plugged. An operator is not required to collect second subsequent samples if a well that is drilled is plugged and abandoned without having produced geothermal fluids.

4. For the purposes of satisfying the requirements for sampling available water sources pursuant to paragraphs (a) and (b) of subsection 3, an operator may rely on the test results of a previous sample from an available water source if:

(a) The previous sample was collected and tested during the respective period prescribed for sampling pursuant to paragraph (a) or (b) of subsection 3.

(b) The procedure for collecting and testing the sample, and the constituents for which the sample was tested, are substantially similar to those required by this section.

(c) The Administrator receives the test results not less than 30 days before the commencement of simulation.

5. The Administrator may require an operator to collect and test samples of an available water source in addition to the collection and testing protocol prescribed by this section if the Administrator finds that additional testing is warranted.

6. The testing of a water sample pursuant to this section must be conducted by a laboratory certified pursuant to NAC 445A.0552 to 445A.067, inclusive. Upon request, an operator shall provide his or her protocol for collection and testing to the Administrator.

7. The test results of initial and subsequent samples collected pursuant to this section must include, without limitation:

(a) The level of each analyzed constituent identified in the routine domestic water analysis of the State Public Health Laboratory of the University of Nevada School of Medicine.

8. An operator shall immediately notify the Administrator and the owner of an available water source if the test results of a sample collected pursuant to this section indicate:

(a) The presence of benzene, toluene, ethylbenzene, xylene or hydrogen sulfide in a concentration greater than the specified maximum contaminant level set forth in the primary and secondary standards for drinking water pursuant to NAC 445A.453 and 445A.455.

(b) If the sample is a subsequent sample, any change in water chemistry indicative of a degradation in water quality.

9. An operator shall provide copies of the test results of each sample collected pursuant to this section to the Administrator and to the respective owner of the available water source not later than 30 days after the operator receives the test results from a laboratory. The Division will, upon request, make the test results available to a member of the public for inspection at the office of the Division located in Carson City.

10. An operator shall include with the copy of the test results of a sample provided pursuant to subsection 10 a description of the location of the available water source and any field observations recorded by the operator during the collection of the sample. The operator shall describe the location of the available water source by public land survey and the county assessor's parcel number and shall include the global positioning system coordinates of the available water source in the manner prescribed by subparagraph (2) of paragraph (b) of subsection 2 of NAC 534.340.

11. An operator shall not commence stimulation at a well until the operator has complied with subsections 1, 2 and 4 to 10, inclusive, and paragraph (a) of subsection 3.

12. As used in this section, "public land survey" has the meaning ascribed to it in NAC 534.185.

### ***NAC 534A.7xx Induced Seismicity Baseline Monitoring, Forecast, and Risk-Based Monitoring Plan.***

*This Section applies to all geothermal wells that are planned or have been stimulated for enhanced geothermal recovery operations.*

1. The owner of the geothermal resource or operator of a proposed stimulation well or series of stimulation wells shall provide the Division with an Induced Seismicity Monitoring Plan with all information necessary to evaluate the induced seismicity impact of stimulation and injection activities on the geothermal reservoir and other natural resources. Information shall include:

(a) Existing reservoir conditions, if any,

(b) Geologic zones, formations, and any known subsurface geological structures that are within the area of review.

(c) Baseline seismic activity of the region

1. Location(s) and ownership of nearest active seismic monitoring stations to include:

(a) All regional monitoring stations that are on the Advanced National Seismic System

(b) All local or regional monitoring systems not on the Advanced National Seismic System

*(c) All planned or recently installed monitoring systems that have enough elements, sensitivity, and aperture to capture seismicity at least as small as a magnitude 1.0 specific to the area of review.*

*(d) All seismic monitoring stations installed within the area of review must be maintained during the life of the geothermal operation.*

*2. Provide the Division with a model to forecast seismicity and demonstrate that the seismic monitoring stations listed in section 1 will collect enough information to characterize background seismicity and identify any active faults that have the potential to be affected by the enhanced geothermal activities to include:*

*(a) Historical seismicity and baseline data*

*1. At least 5 years of regional seismic events*

*2. At least 6 months of local seismic activities from recently installed monitoring systems that have enough elements, sensitivity, and aperture to capture seismicity at least as small as a magnitude 1.0 specific to the area of review.*

*3. Number of seismic events with their respective magnitude for both the regional and local seismic activities before any stimulation occurs.*

*(b) Estimate the baseline hazard from natural seismicity.*

*(c) Estimate the potential hazard from induced seismicity.*

*(d) Create and characterize the risk of induced seismic events*

*(d) Any partnerships with either the United States Geological Survey or local University Seismologic Programs for third party monitoring and or having the seismic monitoring data publicly available.*

*2. The owner of the geothermal resource or operator shall continue to monitor and make available to the public all depth and magnitude of seismic events over a magnitude of 2.5 within 2-miles of the area of review for the life of the project.*

*3. The owner of the geothermal resource or operator shall follow the traffic light risk-based monitoring plan for induced seismic events. Each operation will use the data and information collected under section (1) to work with the Division to establish magnitude levels for Green, Amber, and Red light alerts of the traffic light monitoring system. Below is an example of a traffic light monitoring system.*

*"Green Light Alert" means the Division received notice from either United States Geological Survey, University of Nevada Reno Seismological Laboratory, or the owner of the geothermal resource or operator's seismic monitoring stations that there was an seismic event with an epicenter within 2-miles of the project area with a magnitude less than 2.5.*

*"Amber Light Alert" means the Division received notice from either United States Geological Survey, University of Nevada Reno Seismological Laboratory, or the owner of the geothermal resource or operator's seismic monitoring stations that there was an seismic event with an epicenter within 2-miles of the project area with a magnitude of at least 2.6, but less than 3.9.*

*"Red Light Alert" means the Division received notice from either United States Geological Survey, University of Nevada Reno Seismological Laboratory, or the owner of the geothermal resource or operator's seismic monitoring stations that there was an seismic event with an epicenter within 2-miles of the project area with a magnitude of 4.0 or greater.*

*(a) The Traffic light monitoring system will be established for each individual project area before stimulation of any well.*

*5. All Geothermal wells regulated by this Section shall be equipped with a flow meter capable of monitoring the rate of flow of fluids injected into the well on a per day basis consistent with the Geothermal permit issued by the Division.*

*(a) All permittees shall record and maintain pressure and flow data for each Geothermal well on a monthly basis. The report shall include the average and maximum monthly injection rates, pressures, and any water loss into the formation that requires the use of makeup water. The records shall be submitted to the Division. The records shall be maintained for at least 5 years and shall be available to the Division for inspection upon request.*

#### ***NAC 534A.7xx Induced Seismicity Reporting***

*1. The owner of the geothermal resource or operator shall report the occurrence of any Amber Light Alert seismic event located within a 2-mile radius of the area of review to the Division within 24 hours of the event.*

*2. After reporting a Amber Light Alert, the owner of the geothermal resource or operator has the discretion to operate the permitted well according to the terms of the permit, adjust the operation of the permitted well by reducing the volume of fluids injected into the well, and consult with the Division about the implications of the Amber Light Alert as it relates to the operation of the well.*

*3. After receiving a third Amber Light Alert within six continuous months, an identified Geothermal well the owner of the geothermal resource or operator must immediately consult with the Division on measures proposed to reduce the likelihood of additional Amber Light Alerts.*

*(a) Measures proposed must be submitted for approval on Sundry Form 4a.*

*4. The owner of the geothermal resource or operator shall report any Red Light Alert seismic event located within a 2-mile radius of the area of review to the Division within 24 hours of the event.*

*(a) If a Red Light Alert occurs the owner of the geothermal resource or operator must also notify the local County Emergency Management, and any residents located within a 10-mile radius of the seismic event's epicenter.*

*(b) If a Red Light Alert occurs the owner of the geothermal resource or operator must also notify any Geothermal, Oil, or Gas well permittees with wells located within a 10-mile radius of the seismic event's epicenter.*

*(c) When an identified well is suspected of triggering induced seismic activity above a "Red Light Alert", the permittee shall instantly stop the use of the well and consult with the Division to develop a plan for continued use of the geothermal well.*

#### ***NAC 534A.7xx Induced Seismicity Orders***

1. The Administrator shall issue an order to the owner of the geothermal resource or operator of a Geothermal well for the immediate cessation of operations due to conditions that create imminent danger to the health and safety of the public, or significant damage to property, under any of the following conditions:

(a) If an identified well receives a third Amber Light Alert within two continuous month timeframe after injection or production fluids have already been reduced.

(b) If an identified well or wells regulated by this Section receives a Red Light Alert and the area of review is within 2-miles of the epicenter of the seismic event.

2. The Division has discretion to issue orders, to reduce the likelihood of seismic events, to permittees with wells regulated by this Section within 5-miles of any seismic event epicenter, when necessary, if induced seismicity conditions warrant.

### 3. Induced Seismicity Mitigation Requirements

(a) After receiving an order, in addition to the requirements of the order, the permittee shall schedule a meeting with the Division at the Division's office, to be held within 30 calendar days after issuance of the order and before the order hearing. Once scheduled, the permittee shall confirm the meeting in writing to both the Division and provide the last 6 months of well data required in NAC 534A.7xxx (Induced Seismicity Baseline Monitoring, Forecast, and Risk-Based Monitoring Plan) Subsection 5 to help facilitate the meeting. The purpose of the meeting will be to determine possible ways to mitigate induced seismicity events near the permitted well.

(b) If the permittee and Division reach agreement on how to test induced seismicity mitigation, the Division shall present the agreement as a settlement before the Commission on Mineral Resources.

### **NAC 534A.724 Application to drill; area of review.**

1. Before drilling a production or injection well that is planned to be stimulated, the application must contain, in addition to the information required by NAC 534A.190 – 534A.196, as applicable:

(a) The water appropriation permit(s) number and the name of the owner of each water source within the area of review that is on file with the Division of Water Resources of the State Department of Conservation and Natural Resources.

(b) The well log number, well depth and the diameter of the water well casing.

(c) The static water level below the surface of the ground or the rate of flow of the water, if any.

(d) A description of the location of each water source located within the area of review in the manner prescribed by subsection 11 of NAC 534A.7xx (Stimulation Baseline sampling and monitoring; exceptions).

(e) Publicly available maps and cross-sections of the area of review which describe the surface and subsurface geology of the area of review, including, without limitation, the location of known or suspected faults.

(f) A map showing the location of each water source or perennial stream located within the area of review, the overall project area or lease holdings, the boundaries of the area of review, all known well locations, land ownership and applicable assessor parcel numbers.

(g) The source and estimated volume of water required for stimulation in each well.

(h) *A plan for the management and disposal of all fluids to be used in the proposed stimulation operation.*

2. *If an operator discovers inconsistencies with respect to publicly available and proprietary hydrologic or geologic information within an area of review that the operator reasonably believes to be relevant with respect to potential contamination from stimulation, the operator shall disclose the inconsistencies to the Division.*

3. *The Division may prescribe or an operator may specify an area of review that includes an area of land in addition to that area of land located within a radius of 1 mile of a proposed geothermal well and any surface projection of any lateral component of the wellbore that is proposed for stimulation for the purposes of compliance with this section or the collection of additional data based on population density, residential locations, water source locations or for other good cause as the Division or an operator may deem reasonable.*

***NAC 534A.7xx Additional requirements for geothermal wells planned to be stimulated, including casings and casing strings.*** *In addition to the requirements prescribed by NAC 534A.185 to 534A.196, the operator of an geothermal well shall:*

1. *Ensure that:*

(a) *The surface location of the well is at a lateral distance of not less than 300 feet from any known perennial water source or existing water well.*

(b) *The edge of the drilling pad is at a lateral distance of not less than 100 feet from any known perennial water source or existing water well.*

↳ *An owner or an operator may request and the Division may approve an exception to the requirements prescribed by this subsection.*

2. *For the intermediate casing string installed in the well directly below the surface casing, install the intermediate casing string through the surface casing from the installed depth of the intermediate casing string to the surface of the ground.*

3. *For a production casing string, conduct a pressure test of the casing string in which the casing is pressurized to 3,000 pounds or more per square inch gauge (psig), not to exceed 70 percent of the burst-pressure rating of the casing, for a period of not less than 30 minutes. A pressure test must be conducted and the results of the test must be reported to the Division within 24 hours of the test.*

***NAC 534A.7xx Duties of operator.***

1. *An operator of an enhanced geothermal well shall:*

(a) *Not less than 14 days before the commencement of stimulation:*

(1) *Provide written notice to each owner of real property and any operator of an oil, gas or geothermal well located within the area of review of the stimulation operation.*

(2) *Submit for approval by the Division a sundry notice (Form 4a) and a report describing all specific aspects of the proposed stimulation operation. The report must identify each stage of the stimulation operation, the measured depth and true vertical depth below the surface of the ground for each stage, the duration of each stage, all intervals to be perforated in measured depth and true vertical depth below the surface of the ground, the number and diameter of perforations per foot and the estimated hydraulic pressures to be utilized.*

(b) *Maintain a record as to the manner in which each owner, operator and board of county commissioners was notified pursuant to subparagraphs (1) and (2) of paragraph (a), including, without limitation, the method of notification.*

(c) *Before the commencement of stimulation:*

(1) *Ensure that each chemical used in the process is identified on the Internet website maintained by the Division as a chemical which is approved by the Division for stimulation. An operator may request, and the Division may approve the use of a chemical that is not identified as an approved chemical if the operator submits the request to the Division on a sundry notice (Form 4a) not less than 30 days before the commencement of stimulation.*

(2) *Disclose to the Division each additive that the operator intends to use in the stimulation fluid, including, without limitation, any additive that may be protected as a trade secret. The operator shall include with the identity of each additive the trade name and vendor of the additive and a brief description of the intended use or function of the additive.*

2. *The operator shall monitor and record all well head pressures, including each annular space pressure, during the stimulation operation. The maximum hydraulic pressure to which a segment of casing is exposed must not exceed the burst-pressure rating of the casing, but the Division may require a lower maximum hydraulic pressure as the Division determines is necessary. The operator shall immediately stop the stimulation process and notify the Division if any change in annular space pressure is observed, which suggests communication with the stimulation fluids. The operator shall provide the Division with a report documenting all recorded stimulation pressures for each stage of the stimulation operation not later than 15 days after the completion of each stage.*

3. *The operator shall contain all liquids that are returned to the surface and discharged from the wellbore at the conclusion of each stage of the stimulation operation. The operator shall contain the liquids in enclosed tanks or in the manner prescribed by the Division of Environmental Protection pursuant to chapter 445A of NRS and chapter 445A of NAC.*

4. *Except as otherwise provided in subsection 5 and not later than 60 days after the completion of a stimulation operation, the operator shall report, at a minimum, to the Internet website [www.fracfocus.org](http://www.fracfocus.org) for inclusion in FracFocus, or its successor registry:*

(a) *The name of the operator, the well name and well number and the American Petroleum Institute well number.*

(b) *The date of the stimulation treatment, the county in which the well is located, any public land surveys relevant to the location of the well and the global positioning system coordinates of the well.*

(c) *The true vertical depth of the well and the total volume of water used in the stimulation treatment of the well or if the operator utilizes a base fluid other than water, the type and total volume of the base fluid used in the stimulation treatment.*

(d) *The identity of each additive used in the stimulation fluid, including, without limitation, the trade name and vendor of the additive and a brief description of the intended use or function of the additive.*

(e) *The identity of each chemical intentionally added to the base fluid.*

(f) *The maximum concentration, measured in percent by mass, of each chemical intentionally added to the base fluid.*

(g) *The Chemical Abstracts Service Registry Number for each chemical intentionally added to the base fluid, if applicable.*

5. *Proprietary information with respect to a trade secret does not constitute public information and is confidential. An operator may submit a request to the Division to protect from disclosure any information which, under generally accepted business practices, would be considered a trade secret or other confidential proprietary information of the business. The*

Administrator shall, after consulting with the operator, determine whether to protect the information from disclosure. If the Administrator determines to protect the information from disclosure, the protected information:

- (a) Is confidential proprietary information of the operator.
- (b) Is not a public record.
- (c) Must be redacted by the Administrator from any report that is disclosed to the public.
- (d) May only be disclosed or transmitted by the Division:

(1) To any officer, employee or authorized representative of this State or the United States:

(I) For the purposes of carrying out any duties pursuant to the provisions of this chapter or chapter 534A of NRS; or

(II) If the information is relevant in any judicial proceeding or adversary administrative proceeding under this chapter or chapter 534A of NRS or under the provisions of any federal law relating to geothermal wells or stimulation, and the information is admissible under the rules of evidence; or

(2) Upon receiving the consent of the operator.

↪ The disclosure of any proprietary information pursuant to this subsection must be made in a manner which preserves the status of the information as a trade secret.

6. The Division shall make available to the public for inspection any information, other than a trade secret or other proprietary information that is maintained confidentially pursuant to subsection 5, that is submitted by an operator pursuant to this section.

7. As used in this section, "trade secret" has the meaning ascribed to it in NRS 600A.030.

**NAC 534A.7xx Request to stimulate a geothermal well drilled and completed before Month day, year (TBD).**

1. Notwithstanding any provision of NAC 534A.xxx to 534A.xxx (Stimulation and Induced Seismicity section), inclusive, to the contrary, an operator of an geothermal well that was drilled and spudded before Month day, year (TBD), may request approval from the Division to conduct a stimulation operation at the geothermal well by submitting a sundry notice (Form 4a) to the Division. The sundry notice must include, without limitation:

(a) A cement evaluation log of the production casing string that has been conducted not less than 5 years before the submission of the sundry notice.

(b) A pressure test of the production casing string conducted in the manner prescribed by subsection 7 of NAC 534A.260 and 543A.270.

(c) Any other information required by the Division.

2. The Division will, upon receipt of a request pursuant to subsection 1, evaluate each well design which is the subject of the request and approve or disapprove the request.



**JOE LOMBARDO**  
*Governor*

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## NEVADA DIVISION OF MINERALS SMALL BUSINESS IMPACT STATEMENT

August 6, 2025

RE: Proposed Permanent Changes to Nevada Administrative Code Chapter 534A

I, Robert Ghiglieri, Administrator, Nevada Division of Minerals, do hereby certify that, to the best of my knowledge or belief, a concerted effort was made to determine the impact of the proposed regulation on small businesses and that the information contained in the statement is accurate:

Pursuant to NRS 233B.0608, the proposed administrative regulation changes are not likely to (a) impose a direct or significant economic burden upon a small business, or (b) directly restrict the formation, operation, or expansion of a small business.

### **Background and Purpose:**

The Division of Minerals (Division) regulates all geothermal resource drilling activities in accordance with NRS Chapter 534. The Division proposes changes to multiple sections of NAC 534A to properly regulate new technologies in geothermal drilling and production, update permit fees to maintain the regulatory program, and remove or streamline regulations in accordance with Executive Order EO 2023-003.

As part of the Division's due diligence, the Division met with representatives from companies within the geothermal industry; explored regulations that could be streamlined or removed; researched the costs of drilling geothermal wells; studied other states' laws and administrative regulations; and investigated new, proposed, and emerging geothermal technologies.

### **Evaluation of Impact:**

#### **Streamlining or removing regulations pursuant to Executive Order EO 2023-003**

Changes to three administrative codes were made pursuant to Executive Order EO 2023-003 which sought to streamline or remove regulations which may be burdensome. Changes to NAC 534A.205 removed the requirement to have a geothermal well surveyed by a professional surveyor; NAC 534A.540(4)(f) removed a fee-based requirement to apply for permission to plug and abandon a well; and NAC 534A.550(3) removed the requirement to file paper copies of well logs in favor of digital copies. All three proposed regulation changes were made to either streamline or remove barriers to entry and were deemed to not have a negative impact on small businesses.

## **Updating permitting fees**

The Division proposes to increase permitting fees in NAC 534A.210, .212, .214, .216 and .540. The Division's geothermal program is fee funded and the current fee structure does not cover the cost to operate the program. Major updates to regulatory fees were last made in 1992 with a minor update in 2015. Most fees have not been updated since 1992. Between 1992 and today, the Bureau of Labor Statistics' Consumer Price Index (CPI) calculates inflation at 130%; between 2015 and today, the change is 35%. Proposed increases to fees range from 33% to 100%. All fee increases were made to cover the cost to operate the program. A late fee of 5% per month was also added to NAC 534A.216.

The Division collected and reviewed publicly available information on the cost of drilling a geothermal well within the United States to assess the impact of increased permitting fees on geothermal well operators. Data from the National Renewable Energy Laboratory in 2022 suggest that estimated industrial geothermal well drilling costs may range from \$2 million to more than \$10 million dollars for wells nearing 10,000 feet or deeper. The revised permitting costs for an industrial geothermal well, on average, range from one-twentieth to one-tenth of one percent of the cost to drill a well. The minimal cost of permitting and maintaining a geothermal well permit were deemed inconsequential when compared to the cost of drilling a single geothermal well and were deemed to not have a negative impact on small businesses.

## **Addressing new and emerging technologies**

Lastly, the Division made several additions to NAC 534A due to significant changes in technology in the geothermal well drilling and energy production industries. These changes are not explicitly referenced here because they have not been finalized and codified within NAC 534A. New production systems commonly referred to as "Enhanced Geothermal Systems" require the use of stimulation or hydraulic fracturing a well to create these subterranean, artificial geothermal systems. The drilling design and production techniques can differ considerably from traditional processes and new regulations are required to ensure safe practices and protection of waters of the State. Due to the rapidly evolving and relatively new nature of these processes in geothermal resource development, the Division is not yet able to determine whether these regulations will affect small businesses. However, there are currently only three companies that are actively operating a geothermal plant or currently drilling geothermal wells within the state that qualify as a small business. The Division will encourage these companies, as well as others, to participate in the rulemaking process, as a framework is further established, to better assess potential impacts.

## **Conclusion**

The result of this study concludes that the fee-based changes and changes resulting from EO 2023-003 will result in no impact on small businesses in Nevada. However, the Division will work closely with small businesses and industry during the rulemaking process and seek to identify potential impacts that may arise during the rulemaking process. The Division will further work with small businesses on possible means of mitigating negative impacts of proposed regulations, if any.

Respectfully,



Robert Ghiglieri  
Administrator  
Nevada Division of Minerals