

**THE NEVADA DIVISION OF MINERALS
OF THE COMMISSION ON MINERAL RESOURCES**

October 2, 2019

**SMALL BUSINESS IMPACT DETERMINATION
FILED IN ACCORDANCE WITH NRS § 233B.0608**

IN THE MATTER OF PROPOSED REGULATION CHANGES

As provided in Nevada Revised Statute (NRS) Chapter 233B, and NRS Sections (§§) 513.063(5) and 534A.090, the Division of Minerals of the Commission on Mineral Resources is proposing to amend the present regulation for Geothermal Resources (Nevada Administrative Code (NAC) § 534A.010 through 534A.690).

The Division of Minerals has made a concerted effort to determine if the proposed regulation changes are likely to impose a direct and significant economic burden on a small business or restrict the formation, operation or expansion of a small business.

The following information is provided pursuant to the requirements of NRS 233B.0608:

- 1. Describe the manner in which comment was solicited from affected businesses, a summary of the responses from small businesses and an explanation in which other interested persons may obtain a copy of the summary. (Attach copies of the comments received and copies of any workshop attendance sheets, noting which are identified as a small business.)**

The Division of Minerals emailed and/or mailed a written request to all current Nevada geothermal operators and five drilling contractors/consultants intimately involved in the industry soliciting comment on the proposed regulation. No comments were received.

- 2. The manner in which the analysis was conducted (if an impact was determined).**

The proposed regulation contains two components which may increase the economic burden on small businesses: 1) increased use of mud cooling equipment, and 2) increased minimum bond amounts.

1) In order to analyze the increased cost for mud cooling equipment, a random selection of 10 historic well logs were chosen to quantify the number of days drilling, without the use of mud cooling equipment, with mud temperatures greater than 125°F but less than 200°F; this represents the increased number of days the equipment would be needed under the proposed regulations. The current rental rate for mud cooling equipment was solicited from a drilling contractor.

2) In order to analyze the impact of proposed increased bond amounts, we reviewed our internal bond listings to determine the bond types, bond amounts, and number of wells covered as well as a spatial analysis of the average number of wells in a permitted project area.

3. The estimated economic effect of the proposed regulation on small businesses:

1) Regarding the mud cooling equipment, the current rental rate is \$650/day and the average number of additional days was four, with a range of one to ten days. After adding an additional day for transport and readying, the estimated increased cost would be \$3,250.

2) Regarding the increased bond amounts, of the 241 bonded wells on non-federal land, only seven (3%) are bonded for individual wells. Proposed regulations would increase the per-well minimum bond amount, for all wells except thermal gradient wells, by \$15,000. The current average number of wells on non-federal land covered by a blanket bond is 18, at a per-well cost of \$6,029. Blanket bond minimum amounts would double to \$100,000 under the proposed regulations and be limited to one permitted project area, for new operators or new project areas. The current average number of wells in a project area for a producing field is approximately 14. The increase of \$50,000 per blanket bond when spread across the average number of wells would then result in a per-well cost increase of \$3,571.

A. Both adverse and beneficial effects

The proposed regulations would have the adverse effect of slightly increasing the cost to permit and drill geothermal wells. The beneficial effects would be increased workplace safety and increased funding available for plugging wells on non-federal land if an operator fails to fulfill the permit requirements.

B. Both direct and indirect effects

The direct economic effects are increased minimum bond amounts for wells proposed on non-federal land, other than for thermal gradient wells, and may include increased rental costs for mud cooling equipment depending on the depth of the well. Indirect effects may be increased time for the operator to assess and plan project areas for permitting and increased wear and tear of mud cooling and related equipment.

4. A description of the methods that the agency considered to reduce the impact of the proposed regulation on small businesses and a statement regarding whether the agency actually used any of the methods. (Include a discussion of any considerations of the following methods, if applicable: simplification of the regulation, establishment of different standards of compliance for a small business, or modification of fees or fines so that a small business is authorized to pay a lower fee or fine.)

The Division carefully considered the possibility of reducing the economic impacts to small business but determined that to provide broad exceptions to the rule would undermine worker safety and the ability of the agency to adequately fund the cost to plug and abandon a well if the operator fails to perform.

5. The estimated cost to the agency for enforcement of the proposed regulation. (Include a discussion of the methods used to estimate these costs.)

There is no additional cost to the agency for enforcement of the proposed regulation.

- 6. If this regulation provides for a new fee or increases an existing fee, the total annual amount the agency expects to collect and manner in which the money will be used.**

There are no new fees or fee increase, however the requirement for increased bond amounts may increase money received by the Division and deposited into the Fluid Minerals Bond Pool account, budget account #6201. Bonds may be in the form of cash, certificate of deposit, or a surety from an insurance company licensed to do business in Nevada. Current bonding by value is roughly equal across the three bond types. Bonds in the form of cash are held, and not returned, until the operator satisfactorily completes the plugging and abandonment of any well tied to that bond. If the operator fails to perform the work as required, the bond may be used, in whole or in part, to plug and abandon the well(s).

- 7. If the proposed regulation includes provisions which duplicate or are more stringent than federal, state, or local standards regulating the same activity, provide an explanation of why such duplicative or more stringent provisions are necessary.**

The proposed regulation may duplicate or overlap federal regulations only on public lands administered by the U.S. Department of the Interior, Bureau of Land Management. The proposed regulation is more stringent than current federal law with regards to the requirement for the use of mud cooling equipment.

- 8. The reasons for the conclusions regarding the impact of a regulation on small businesses.**

The requirement for use of mud cooling equipment and increased bond amounts will slightly increase the cost to small businesses to permit and drill a geothermal well. On a per-well basis, these increased costs would total approximately \$6,800; however they are not significant when compared to the cost of drilling a typical commercial or industrial geothermal well, which currently ranges from \$1M to \$3M.

The Division of Minerals has duly considered all of the statutory requirements in NRS 233B and has compiled this Small Business Impact Determination with the reasons and conclusions above. To my knowledge and belief, a concerted effort was made to determine the impact of the proposed regulation on small businesses and the information contained in this statement is accurate.

Respectfully submitted,



Richard Perry
Administrator
Nevada Division of Minerals