



STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
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ROBERT GHIGLIERI
Administrator

Thursday, November 13, 2025

1:00 P.M.

MINUTES

Commission	Staff	Public
Josh Nordquist	Robert Ghiglieri	Fred Dillinger
Arthur Henderson	Rebecca Tims	Simon Jowitt
Nigel Bain	Garrett Wake	Beatriz Maquez Garcia
Stephanie Hallinan	Lucia Patterson	Ernesto Cuenca
Bob Felder	Lorraine Belt-Dolan	Kevin Vindel
Randy Griffin Via Zoom	Nicole Ting	
Bob Potts Via Zoom	Daniel Marlow	

CALL TO ORDER

1:00 PM by Josh Nordquist

Roll Call

All commissioners were present.

COMMENTS BY THE GENERAL PUBLIC

There were no comments.

I. Agenda

A. Approval of the Agenda

Agenda item IV.G under Agency Business was moved to Agenda Item IV.C.

Motion to approve the agenda made by: Stephanie Hallinan

Seconded by: Arthur Henderson

Unanimously approved

II. Minutes

A. Approval of the meeting minutes from the August 7, 2025, meeting

Motion to approve the minutes made by: Bob Potts

Seconded by: Bob Felder

Unanimously approved

III. Intent to Adopt Regulation

Robert Ghiglieri updated the commission on the proposed permanent regulation change to NAC 519A as LCB File R051-25. The purpose of the revisions is to reduce the financial burden of operators applying for participation to the Bond Pool. The public workshop was held on Tuesday, August 26th at the legislative building. Changes to NAC 519A were not received.

The bond pool holds relatively small bonds with a cap of \$3M per project. The main point of the bond pool is for small exploration projects. The Division reached out to all bond pool participants on the changes and received no comments. There were no comments after the public workshop. There is no perceived negative small business impact due to this change. The next step is submission to the legislative commission for adoption. **Bob Potts** asked if we received any comments or concern from the legislature. **Rob Ghiglieri** stated we received no comments or feedback from the legislature. These changes align with the governor's directive to streamline regulations. We identified this change three years ago and decided to make the change after the governor's office asked us to identify additional regulations to streamline.

Motion to Approve: Bob Felder

Seconded by: Art Henderson

Unanimously Approved

IV. Agency Business

A. NvMA Update

Amanda Hilton updated the commission on current happenings from the NvMA. Amanda said the NvMA recently updated their mission statement. The association recently onboarded over 200 new members. Workforce development is the current focus of the association. NvMA served as the united voice for the mining industry during the last legislative session and works with the state's federal delegation. Amanda noted the passage of AB 277, which allows the net proceeds of minerals bulletin to again be published. NvMA is again cosponsoring the annual teacher workshops on March 16-17 in southern Nevada and June 17-18 in Northern Nevada. NvMA had over 900 attendees at their annual convention which was a record. Amanda noted that the state is lacking in processing facilities for critical minerals. Amanda concluded by reporting on mining's beneficial impacts on the state and asked for questions.

Randy Griffin asked if anyone identified any rare earth minerals within Nevada's borders? **Amanda Hilton** said she is not aware of any minerals that are classified as rare earth minerals within our borders. Amanda said she met with the Army research lab and they provided a list of their minerals that they are looking for and that every branch of the military is looking for different minerals. The army research lab gave a list of 10 different minerals and Nevada has resources for at least four of those. **Simon Jowitt** said there is one exploration project down by searchlight and that there is other potential in the state. **Nigel Bain** said that Turquoise Ridge is the biggest employee group between Sacramento and the state line. The next group is Winnemucca. He says there is a pull coming from Northern California. **Amanda Hilton** said when we were doing our strategic communications plan, we were identifying areas where we could find mid-level career folks. The reason we chose Northern California is because the cost of living is higher and that there are opportunities for anyone who is at any stage in their career to work in the mining industry.

B. Thorium Presentation

Fred Dillinger presented thorium and general energy issues. He said that talent is also a problem in energy and is the first topic discussed. He said US energy demand is going to skyrocket due to AI, transportation electrification, and quantum computing. Regulations are a major factor limiting nuclear power plants right now. We know how to run a light-water reactor very well but not thorium; India can do this, and China is working on it as well. One benefit of thorium reactors is that they do not need to be shut down to add fuel, it generates less radioactive waste and is walk-away safe. Advantages of thorium include greater abundance and enhanced safety; disadvantages include less understanding of the fuel cycle and lack of infrastructure. Recent reactor developments include Microsoft's development of Three Mile Island and Holtec in the Palisades. Fusion is being worked on and is an engineering challenge right now. Lithium is necessary to create tritium for fusion. Fred asked for questions.

Josh Nordquist said SMR's (Small Modular Reactors) have been a hot topic and asked what is your take on the current development? **Fred Dillinger** replied when he talks to people in the field, it is all smoke and mirrors. Small module reactors will eventually scale up and they inherently produce more waste. The department of energy is going to call some of these companies and ask them to show why they are not going to produce more waste. We have about 93,000 tons of spent nuclear fuel from our existing inventory of reactors that we have not found a

repository for and to complicate it by adding different fuel types or waste forms would not be great. We will be reading a guest column soon by former Sen. Richard Bryan concerning this. **Josh Nordquist** stated that big topic is the large increase in electrical needs and the lack of infrastructure and asked how this is discussed in this industry. **Fred Dillinger** said they are squeezed with personnel; the best people are being siphoned off by fusion. There's a great presentation from Mark Mills from the Manhattan Institute talking about moving from a fluid-based transportation system to solids based and this will have huge mining impacts. **Randy Griffin** asked what's the status of what kind of reactor that Bill Gates' Terra power is. **Fred Dillinger** it's a molten salt reactor that can be fueled with thorium. **Randy Griffin** asked if it is very large. **Fred Dillinger** said the plant is about 500 megawatts. **Robert Ghiglieri** asked if there is an estimated amount of lithium and the grade that is needed. **Fred Dillinger** said the lithium that is used in car batteries is lithium 3, and lithium needed for fusion is lithium 5. He is going to talk to John Elling of Molten Salt Industries about what that would take because we would be very interested in having a lithium processing facility up by Thacker Pass. **Bob Felder** said you mentioned thorium being more abundant in the earth's crust than uranium, and maybe this is a question for Simon, but monazite occurs in silicic igneous rocks, is it like gold, 3ppb in the ocean and we'll never get it out or is there a concentration mechanism. **Simon Jowitt** said there's deposits in heavy mineral sands like in Australia, India, Florida. The Australians just bury it and say it's a natural occurring radioactive material, we don't want it and we're not going to use it. They wrote a paper six or seven years ago about all the rare earth elements essentially being buried there as waste. India is stockpiling it. There are monazite units at Mountain Pass that aren't being used. There's no demand yet. **Bob Felder** said that another issue is delivering the materials to reactors.

C. Ormat Update

Josh Nordquist provided the commission with updates from Ormat. Ormat has operated for 45 years in Nevada and opened Nevada's first geothermal power plant. 80% of revenue today is from electricity sales. They also sell products and store energy, as well as solar energy production. **Art Henderson** asked what the sales point is for energy storage. **Josh Nordquist** said there are several marketed products, one is energy, buy low and sell higher. **Nigel Bain** asked if that's what drove Ormat into this space, to store solar energy. **Josh Nordquist** said that stored energy doesn't cross borders, it's always within the generated market. Projected growth in the industry seemed to fit their model. **Nigel Bain** asked about an energy storage plant in California that caught fire. **Josh Nordquist** wasn't sure what happened there, but overheating is a technological challenge. Ormat is vertically integrated, they handle most parts of the industry themselves, including having their own drill rigs and crews. Ormat acquired the Blue Mountain facility last year and acquired the geothermal assets of Enel NA. There is significant geothermal buildout across the world and Ormat supplies products for the industry. **Bob Felder** asked if California still leads the US in geothermal production. **Josh Nordquist** confirmed this. AI industries and data centers are motivating the geothermal industry to grow. Most Nevada geothermal electricity is exported to California where they pay a higher rate, and the proceeds return to Nevada. This is starting to shift back. **Rob Ghiglieri** asked what the Nevada renewable energy goal was by 2035 and asked if this is a factor. He believes it is 30%. **Josh Nordquist** believes that is the number. **Art Henderson** asked if you could consume too much heat from the reservoir to where it isn't useful. **Josh Nordquist** said that on-demand generation can ramp up and ramp down operations. Heat brought to the surface can be sent back if not needed. **Art Henderson** thinks that geothermal energy is near the top of the list for best energy. **Josh Nordquist** said commercial energy is targeted around 7,000 ft. deep but new technology is doubling that with enhanced or augmented geothermal or combined as next generation geothermal. **Nigel Bain** asked about the definition of enhanced geothermal. **Josh Nordquist** said he classifies this as new technology that doesn't rely on permeability, only heat. **Art Henderson** asked what the minimum size of a geothermal plant. **Josh Nordquist** said they're targeting around 10 – 30 Megawatt (MW) but next generation geothermal may target 100 MW or more. **Art Henderson** asked what the price per MW is. **Josh Nordquist** said public data shows around \$4 - 4.5M per MW. The grid system in the west is currently not robust to accept the power the nation needs. **Nigel Bain** mentioned the interlinking of the northern and southern Nevada grids. **Josh Nordquist** said this was huge for the geothermal industry in the state because it allowed access to southern Nevada and the California markets. **Nigel Bain** said that the Cortez mine needed to notify the power company when they started their mill because of the limited power supply in the area. **Josh Nordquist** said that line that runs to Ely was fully consumed before it was built. **Rob Ghiglieri** said it's the same with Greenlink. **Josh Nordquist** said federal permitting has been faster and federal investments have helped the industry grow. Next generation geothermal may expand US geothermal capacity 20 times by 2050. **Rob Ghiglieri** said the USGS reported last year that estimated next generation

geothermal may produce around 130 GW in the great basin alone. **Josh Nordquist** said this technology should be selling electricity in Utah from Fervo Energy this year. **Bob Felder** asked how investors are paid, whether through equity or royalties. **Josh Nordquist** said there is a lot of venture capital, Ormat is a public company driven by stock price. There is a royalty side on the technology side and by landholders. The percentage is fairly low, around two percent to five percent. He doesn't recall if it's gross or net. Josh asked if there were questions.

D. Agency Budget Update

Garret Wake briefed the commission on the Division of Minerals current budget. The agency has around \$4.1M cash on hand at the time of the presentation. This tracks closely with the previous few fiscal years. The Division closed the fiscal year receiving about one percent less in mining claim filing fees than the previous fiscal year. Esmeralda county's fourth quarter fiscal year payment was still outstanding at this time. **Rob Ghiglieri** noted that the agency budgeted for a five percent decrease in claim fees. The price of gold has maintained our fees. **Garrett Wake** said the agency is down about two percent for mining claim fees at this time in fiscal 2026 from last year. **Rob Ghiglieri** noted that our largest expenditure categories are personnel and AML enhancement for contract work. He noted that the AML work is going slower this year due to permitting. **Garrett Wake** finished by showing the Reclamation Performance Bond Pool status which is running a surplus. **Nigel Bain** asked about reclaiming some of the projects that have been terminated. **Rob Ghiglieri** said that we have plans to do so and did complete work at the Kingston Mill and are awaiting a formal letter from the BLM for the completed work. No further questions.

E. Open Data Site Update

Lucia Patterson provided recent updates to the Open Data Site. Lucia added a mineral reservation and case recordation search to the site. The Claims by County dashboard will show claims by county, notices, plans of operation, and other data. A Critical Minerals dashboard shows USGS critical mineral data for the US and Nevada specific data. Lucia showed how to use the Mineral Reservation and Case Recordation areas of the open data site. **Stephanie Hallinan** asked how often the BLM updates their data. **Lucia Patterson** said she isn't sure but she thinks they update it often. Lucia pulls the data every month. Lucia hopes to show the AML aspect of a mining exhibit being created at the Nevada State Museum at the next commission meeting. She showed the web apps that have been added to the current mining exhibit at the museum. Lucia built a web app to add context to the Mining Regulatory Clarity Act showing the fees that go to the BLM and the general fund from mining claim fees. No further questions.

F. Recent Copper and AML Reports

Robert Ghiglieri went over the recent copper report and hardrock AML report. Rob said that the copper report is a starting point for siting copper processing facilities. The report shows the economics currently support a regional copper processing facility. Rob said he met with the Nevada federal delegations in Washington DC last week and they were very interested. Rob said the AML report is also a high-level report talking about the nationwide hardrock abandoned mine lands situation. It is meant for the public and policy makers to inform. Rob mentioned that hardrock AML remediation may be a good source of critical minerals through waste reprocessing. He asked Simon Jowitt how much the Nevada Bureau of Mines and Geology receives from the USGS to study this. **Simon Jowitt** said \$300,000 per year to characterize as many sites as they can, about a dozen sites a year, with two people working on it. **Rob Ghiglieri** said there needs to be more funding to this program to inventory sites. He said he had meetings with staffers from both the house and senate on this as well as members of the EPA. Rob said that the Governor's Finance Office asked about feasibility of investment into Nevada for defense related mining and processing. Rob said the Division would assist with this and also referred them to the NBMG. Another request came from Debbie Struhsacker was the evaluation of state and federal policies and the correlation, if any, between timelines of permitting and mineral production. Nigel Bain recommended we look into an oil infrastructure study and the governor's office created a task force to investigate changes to refineries in California and impacts on Nevada. These are future areas the commission and Division could become involved to provide expertise and knowledge. **Art Henderson** said the changes in oil infrastructure will affect every Nevadan. **Rob Ghiglieri** said that Senator Cortez Masto's office was focused on the MRCA and how many mill site claims will be created. There are some amendments looking at how to access revenue to fund the AML program. If 10% of the

mining claims are converted to mill sites at \$200 each it creates \$40M in funding. **Nigel Bain** mentioned the disruption to the mining industry when Barrick tried to push an increase in claim fees. **Rob Ghiglieri** said these fees would be on claims for companies that were at or near production which would cause less burden.

G. NBMG/CREG Update and Project Proposals

Simon Jowitt provided updates on the Nevada Bureau of Mines and Geology (NBMG) and proposals for projects. NBMG is budgeting for a jump in grant expenditures in 2026. Simon discussed the staffing of the bureau and recent publications, including publications like the Soda Lake study and others supported or funded by the Division of Minerals. **Rob Ghiglieri** said that Senator Rosen asked about how to get better data for mineral exploration. **Simon Jowitt** said that every dollar spent on precompetitive data yields roughly 50 to 100 dollars of return. He then discussed the Center for Economic Geology (CREG) and its personnel and funding. Simon highlighted recent media coverage of critical minerals where he was interviewed as a subject matter expert. He said that research capacity is a challenge, that UNLV currently has more economic geologists than UNR. Simon discussed recent federally funded geophysical data acquisitions such as Earth MRI. The 30th anniversary of CREG is in 2026. Potential projects the commission could assist with include a Nevada Explorer's Manual, metallogenic maps, mineral statistics compilation, geological map compilation, impact of mining on Humboldt county, publication of two mining education activities, and critical mineral maps. Simon asked for questions.

Bob Felder said that compiling precompetitive data would compliment the major mines publication except we don't have access to the data here. **Simon Jowitt** thinks it could be done with difficulty. Metallogenic maps would be a good start. **Rob Ghiglieri** said there are inconsistencies with historic mineral reporting data. **Simon Jowitt** said there are reports that go back to the 80s that conflict with current published data. **Bob Felder** said the level of support you are getting at the state level is ridiculous. **Simon Jowitt** said the university seems to focus on engineering **Robert Ghiglieri** said he has a meeting with provost Thompson, and he wants to discuss how is there opportunities to bring in federal funding and personnel at CREG at NBMG to help facilitate these opportunities. **Simon Jowitt** said Brian Sandoval has officially said that there is going to be some sort of critical minerals center set up at the University. **Robert Ghiglieri** said having one economic geologist in the entire bureau at that level is holding back so many opportunities for additional students, grants, and revenue in general. This administration works on what is ready right now, they don't want to hear about what's ready next year. **Simon Jowitt** said they have a good reputation to build on and just need to be brought back to the level they were at when he arrived; people are leaving and not replaced. **Robert Ghiglieri** asked the commission how to proceed with the proposals. **Bob Felder** said he would like to see them prioritized attach a budget. **Simon Jowitt** said he isn't looking for a blank check. without feedback, he don't know if he is proposing the right projects. **Bob Felder** said he would review the projects in the next few days and send you a priority list. **Nigel Bain** said the companies are not hiding the information but they're not publishing it either. **Bob Felder** said it's such a problem here. The juniors and the individuals were concerned that their data is their advantage and the majors feel the same way, and they have big data sets that are more important. I would really support certain timeline after a project is done or after a mine goes into production that data has to go into the public domain. **Bob Felder** said there is never a price tag on the data, companies always want a royalty and that doesn't work. **Simon Jowitt** said that Earth MRI and the potential issues coming up, unless we think there is more support for it, we're basically going to end up in a situation where we have 10 million dollars per year for the entire country. They're useful for more than just mineral exploration.

H. Language Access Plan

Garrett Wake went over the renewal for the Language Access Plan. The Division revised it's Language Access Plan (LAP) to respond to non-English speaking individuals that access the Division's resources as required by NRS 232. **Art Henderson** asked if there was a requirement for people to be a US citizen or legal resident to access the Division's resources. **Garrett Wake** responded there was not. **Rob Ghiglieri** stated that many or most agencies needed to update their plans to conform to statute. **Garrett Wake** said the checklist had tasks that would be difficult to achieve.

I. Administrator Report

In September the governor had a critical mineral summit in Las Vegas and Rob participated in a panel discussion. The Division received all its data back from the statewide data breach. The AML program worked with the Washoe County search and rescue team to train on AML rescue. We have a new cooperative agreement to do AML work on National Park Service land pending task agreements. The Good Samaritan project is moving forward, we anticipate being one of the first applicants to receive funding. The EPA is supportive of Nevada and Colorado's projects. There are some legal issues to deal with that are being worked through due to NSHE owning the land. If it doesn't work, we could still have industry fund the project. We did an internal review of all agency positions and job duties. We were approved a 13th FTE this legislative session and moved two employees into more accurate positions. Rob and Lucia visited Washington DC for the Interstate Mining Compact Commission; he had 11 meetings with staffers and one briefing surrounding mineral resources. We awarded three reclamation awards this year and the Division created a video highlighting the awards. There is a senate natural resources committee hearing to review BLM land use planning under FLPMA. HR4009 is a bill we're watching which move executive orders into law, and HR 4779, the SPEED act, which limits the legal litigation duration from six years to 150 days. The Mining Schools Act still seems dead in the water. No questions. Rob introduced the Division's newest employee, Lorrain Belt-Dolan, Las Vegas office administrative assistant.

V. Commission Business

A. Election of Vice Chair

Stephanie Hallinan was selected as Vice Chair by the Chairman. Stephanie Hallinan accepted the role.

B. Correspondence from the Commission

There was no correspondence from the commission.

C. Review of Staff Monthly Reports

There were no comments.

D. Future Meeting Agenda Items, Location, and Date

Next meeting agenda items include conceptual BDR's for 2027 and are due March 26th, 2026 and NAC 534A regulation changes. The next commission meeting is scheduled for February 19th, 2026 in Las Vegas.

COMMENTS BY THE GENERAL PUBLIC

There were no comments.

ADJOURNMENT

The meeting adjourned at 5:10 PM.

NOTICE TO PERSONS WITH DISABILITIES

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.