

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

**Meeting Minutes
Regular Meeting
September 10, 2015
Porter Hall
Wendell Chino Building
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505**

MEMBERS PRESENT:

David R. Catanach Chair, Oil Conservation Division
Robert Balch Designee, Energy, Minerals and Natural Resources Department
Patrick Padilla Designee, New Mexico State Land Commissioner

OTHERS PRESENT:

Bill Brancard, Counsel for the Commission

The meeting was called to order by Chair Catanach at 9:18 a.m.

Item 1. Roll Call.

Role was taken; a quorum was present.

Item 2. Approval of Agenda.

Action: Commissioner Padilla moved adoption of the agenda. Commissioner Balch seconded the motion. The motion passed unanimously.

Item 3. Approval of minutes of August 13, 2015 meeting.

Action: Commissioner Balch moved to approve the minutes. Commissioner Padilla seconded the motion. The motion passed unanimously.

Cases 15357 and 15365 have been consolidated by order of the Commission, and the Commission has issued procedures for the consolidated hearing.

Item 4. Case 15357, Application of Lightning Dock Geothermal HI-01, LLC for approval to inject into a geothermal aquifer through three proposed geothermal injection wells at the site of the proposed Lightning Dock Geothermal Power Project, Hidalgo County, New Mexico.

Item 5. Case 15365, Application of Lightning Dock Geothermal HI-01, LLC to place Well No. 63a-7 on Injection, Geothermal Resources Area, Hidalgo County, New Mexico.

Action: Appearances were made by Michelle Henrie for Lightning Dock Geothermal HI-01, LLC (Lightning Dock); Charles Lakins for AmeriCulture, Inc. (AmeriCulture); Allison Marks for the Oil Conservation Division (OCD); and Pete Domenici, Jr. for the Hidalgo County Soil &

Water Conservation District (HSWCD). Counsel Brancard announced that a pre-hearing conference call had been held with all parties at which Chair Catanach denied the Expedited Motion to Vacate Hearing that was filed by AmeriCulture and requested a more detailed statement from HSWCD regarding their standing in the cases. This detailed statement has been filed. Ms. Henrie amended the proposed order she previously filed with the Commission by including OCD's proposed modifications to the order.

Ms. Henrie made an opening statement outlining the presentation of her case. Lightning Dock's first witness was David Janney, a Professional Geologist with Geo Science Solutions in Albuquerque, New Mexico, serving as Lightning Dock's agent. He discussed the content of the injection applications and stated that they had been sent to all parties within one-half mile of the locations. He discussed the conditions of approval presented by the OCD in its pre-hearing statement and pointed out minor corrections. He discussed the location of the injection wells, producing wells and monitoring wells in relation to the power plant. He identified the BLM leases and State leases. He said the annual monitoring report required under the discharge plan concludes that fluoride concentrations are naturally occurring in the production well and have remained constant. He presented the results of samples taken from the wells. He said there is some groundwater mounding. He compared water from the production well and three injection wells with the AmeriCulture wells to show concentrations of constituents. He stated there are no changes in the water chemistry as it runs through wells into the power plant. Mr. Lakins, Ms. Marks, Mr. Domenici, Counsel Brancard and Chair Catanach cross-examined the witness, and he was excused.

Lightning Dock's next witness was Monte Morrison, Professional Engineer and Vice President of Safety with Cyrq Energy, Inc. in Fallon, Nevada. He explained that Cyrq Energy, Inc. is the parent company to Lightning Dock. He described the power plant operations and explained that after the water is treated, it is injected back into the formation. He discussed the range of temperatures in the power plant. He said if the four additional injection wells are allowed, there will be an increase in production of geothermal water. He estimated the life of the facility to be approximately 30 years. Mr. Lakins, Mr. Domenici, Commissioner Balch, Commissioner Padilla, Counsel Brancard and Chair Catanach cross-examined the witness, and he was excused.

A statement was made by Darr Shannon, Commissioner of the Hidalgo County Soil & Water Conservation District in Lordsburg, New Mexico, objecting to the applications on behalf of the District. Counsel Brancard presented a statement submitted by Tom McCants for the record.

The next witness for Lightning Dock was John Shoemaker, one of the principals in John Shoemaker & Associates, Inc., a consulting firm in Albuquerque. He discussed flow rates and gave the temperature of production wells. He said there were shows of a barrier to the flow. He discussed the geothermal system and the area of impact from the pumping and re-injection. He described the fracture system. He stated that all wells in this system, regardless of depth, are connected. Mr. Lakins, Ms. Marks, Mr. Domenici, Commissioner Balch, Commissioner Padilla and Chair Catanach cross-examined the witness, and he was excused.

Lightning Dock's next witness was Roger Bowers, Consultant with Roger Bowers & Associates in Ely, Nevada, appearing for Cyrq Energy, Inc. He gave an overview of the history of exploration in the area. He discussed seismic lines in the Animas Valley. He said that studies were made by several sources to determine resource capacity which could be 15 to 20 megawatts. He discussed a joint facility operating agreement between Lightning Dock and AmeriCulture and explained correlative rights. He identified each of the proposed injection wells and the impact they might have on the water temperature. Mr. Lakins, Mr. Domenici, Commissioner Balch, Commissioner Padilla and Chair Catanach cross-examined the witness, and he was excused.

Charles Jackson, Luna County Manager and former Water Resource Specialist for the State Engineer's Office in Deming, New Mexico, was called out of order as a witness for AmeriCulture. He discussed an agreement between OCD and the State Engineer's Office in which the State Engineer's Office would not issue water rights for beneficial use of water until OCD approved the permit. He talked of a water replacement plan. Ms. Henrie, Mr. Domenici, Ms. Marks, Commissioner Balch, and Commissioner Padilla cross-examined the witness, and he was excused.

Cases 15357 and 15365 were continued to 10 o'clock a.m. on September 11, 2015. Mr. Domenici excused himself from the continuance of the hearing due to previous plans. The hearing was recessed at 6:25 p.m. on September 10, 2015.

The hearing reconvened at 9 o'clock a.m. on Friday, September 11, 2015, at which time the following case was heard.

Item 10. Case 15193: Reopened Application of Frontier Field Services for Authorization to Inject, Lea County, New Mexico.

Action: Appearances were made by Scott Hall for Frontier Field Services (Frontier) and Gabriel Wade for the Oil Conservation Division (OCD) in support of the application, with Phillip Goetze available for questions. Mr. Hall made an opening statement explaining that the order entered in this case requires Frontier to come to hearing to revise the parameters set out in the order. He requested that amendments be allowed administratively in the future. Frontier's first witness was Coy Bryant, Director of Operations with Frontier in Durango, Colorado. He explained that Frontier is seeking an increase in the maximum rate of injection. He presented an overview of acid gas operations in the two subject wells. He described the process of removing CO₂ and H₂S from the product. He discussed the orders allowing injection into each well. He stated that concentrations have increased resulting in a larger volume of acid gas to be disposed of. Mr. Wade, Commissioner Balch, Commissioner Padilla and Chair Catanach cross-examined the witness, and he was excused.

Frontier's next witness was Alberto Gutierrez, President of Geolex Incorporated in Albuquerque. He explained the parameters used in the current orders. He presented the results of step rate tests taken and explained why a second well was requested and permitted by OCD. He said that BLM does not review Applications for Permit to Drill (APDs) for acid

gas wells until OCD has approved the permit to inject. He presented information and data analyses to support the injection rate increase. He said that Frontier will work with BLM to design a casing change and will submit it to the district office of OCD on a Form C-103. He said notice of this hearing had been provided to all affected parties, and no objections were received. He stated that a modified H₂S Contingency Plan has been submitted to OCD for review and it is expected to be approved within two weeks. Commissioner Balch, Commissioner Padilla, Counsel Brancard and Chair Catanach cross-examined the witness, and he was excused.

After a motion by Commissioner Balch and a second to the motion by Commissioner Padilla, the Commission voted unanimously to close the meeting pursuant to NMSA 1978, Section 10-15-1-H to deliberate on reopened Case 15193. After a motion by Commissioner Balch and a second to the motion by Commissioner Padilla, the Commission voted unanimously to go back into open session. Chair Catanach announced that reopened Case 15193 was the only matter discussed during the closed session. Counsel Brancard stated that the Commission proposes to approve the increased injection rate to 3.5 MMSCFD but does not approve the request for further modifications to the orders to be presented to the Oil Conservation Division or approved administratively. Mr. Hall was requested to submit a draft order to Counsel Brancard. The case was closed.

The meeting was reconvened at 10:30 a.m. on September 11, 2015, for the continuation of Cases 15357 and 15365.

Ms. Henrie called D. L. Sanders, Senior Chief Counsel for the State Engineer in Santa Fe, New Mexico, as a rebuttal witness to Charles Jackson's testimony regarding State Engineer policies, water law, and geothermal water rights. Mr. Lakins, Ms. Marks, Commissioner Balch, Commissioner Padilla, Counsel Brancard and Chair Catanach cross-examined the witness, and he was excused.

Lightning Dock's next witness was Greg Miller, Professional Geochemist and Practicing Hydrologist in Socorro, New Mexico. He stated he was retained by Lightning Dock to perform an evaluation of groundwater quality in the vicinity of Lightning Dock. He said he issued a report that showed the existence of fluoride in the area. He characterized a typical geothermal water sample and a sample from the Animas Valley potable water. He explained hydrothermal mixing of waters and mixing equations. He discussed background threshold values and fractured rock systems. He discussed the fluoride plume in the area. Mr. Lakins, Ms. Marks, Commissioner Darr Shannon, Commissioner Barth, Commissioner Padilla, Chair Catanach, and Counsel Brancard cross-examined the witness, and he was excused.

A discussion was held on the confidentiality of certain reports and compilation and interpretation of data used by Lightning Dock in its presentation. Ms. Henrie and Mr. Lakins agreed to work on a confidentiality agreement for certain exhibits. The hearing of these two cases was continued to 1 o'clock p.m. on October 7, 2015

Item 6. Case 15281: De Novo Application of COG Operating LLC for a non-standard spacing and proration unit and compulsory pooling, Eddy County, New Mexico.

Action: This case was continued to the December 10, 2015 Commission meeting.

Item 7. Case 15282: De Novo Application of COG Operating LLC for a non-standard spacing and proration unit and compulsory pooling, Eddy County, New Mexico.

Action: This case was continued to the December 10, 2015 Commission meeting.

Item 8. Case 15283: De Novo Application of COG Operating LLC for a non-standard spacing and proration unit and compulsory pooling, Eddy County, New Mexico.

Action: This case was continued to the December 10, 2015 Commission meeting.

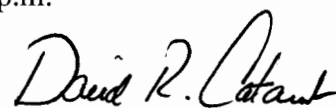
Item 9. Case 15327: De Novo Application of COG Operating LLC for a non-standard spacing and proration unit and compulsory pooling, Eddy County, New Mexico.

Action: This case was continued to the October 8, 2015 Commission meeting.

Item 11. Next meeting: October 7- 8, 2015

Item 12. Adjournment

The chair adjourned the meeting at 5:08 p.m.



DAVID R. CATANACH, Chair