



# STATE OF NEVADA

Department of Conservation & Natural Resources

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

DIVISION OF ENVIRONMENTAL PROTECTION

Colleen Cripps, Ph.D., Administrator

## NOTICE OF DECISION - Bureau of Mining Regulation and Reclamation

Web Posting: 06/07/2012

Deadline for Appeal: 06/17/2012

**Silver Peak Lithium Project**  
**WPC Permit No. NEV0070005**

**Chemetall Foote Corporation**  
**PO Box 98**  
**Silver Peak, NV 89047**

The Nevada Division of Environmental Protection has decided to issue a renewal Water Pollution Control Permit (Permit) NEV0070005 to Chemetall Foote Corporation. This permit authorizes the construction, operation, and closure of an approved physical separation facility at the Silver Peak Lithium Project site in Esmeralda County. The Division has been provided with sufficient information, in accordance with Nevada Administrative Code (NAC) 445A.350 through NAC 445A.447, to assure the Division that the groundwater quality will not be degraded by this operation, and that public safety and health will be protected.

The Permit will become effective June 22, 2012. The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to Nevada Revised Statute (NRS) 445A.605 and NAC 445A.407. All requests for appeals must be filed by 5:00 PM, June 17, 2012, on Form 3, with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249. For more information, contact Rob Kuczynski, P.E. at (775) 687-9441 or visit the Division's Bureau of Mining Regulation website at [www.ndep.nv.gov/bmrr/bmrr01.htm](http://www.ndep.nv.gov/bmrr/bmrr01.htm).

Electronic and written comments (E-mail and letters dated April 30, 2012 and May 19, 2012) were received during the public comment period from Mr. Paul Rupp, a resident of Silver Peak. Mr. Rupp has parcels and homes within 800 feet of the Silver Peak facility.

The Division acknowledges the assistance of Mr. Joseph Dunn, General Manager, Chemical Foote Corporation in preparing responses to several of Mr. Rupp's comments.

**Comment 1:** "Information is requested for Lithium Metal Recycling Processing at Silver Peak Lithium Operation...in the form of copies of information to study, review, analyze and prepare comments to submit no later May 19, 2012"... "I am requesting...a copy of the current permit and a copy of the new permit with all changes and add-ons that will be issued...copies of monitoring well data...for processing plants"... "[A] Copy of [all] chemicals used at Silver Peak

NV Lithium facility processing plants used in production of ALL LITHIUM [Mr. Rupp's emphasis] processes is also requested as these chemicals' are the pollution, correct?"...“Information (copies of) also requested for all sources of water provided and used by the Silver Peak Lithium Facility”...“Information (copies of) all soil samples taken within 500 feet of Silver Peak Residents...”

**Division Response:** *The Division provided electronic copies of the Draft Permit Renewal and Factsheet and the current Permit and Factsheet to Mr. Rupp on Monday, April 30, 2012.*

*On Monday April 30, 2012 and on Wednesday, May 2, 2012, the Division informed Mr. Rupp via E-mail and telephone conversation that the information, documents, and monitoring reports in question were not available electronically, but available for review at the Division's Carson City Office. Because of the volume of information and size of the documents, Mr. Rupp was informed that he was welcome to view information and documentation residing in the Division offices during office hours (8:00 am - 5:00 pm, Monday through Friday) and/or arrange to have copies made by any one of several local vendors in the Carson City area.*

*On Friday, May 18, 2012, Mr. Rupp E-mailed the Division, requesting that the information be forwarded electronically immediately. On Monday, May 21, 2012, Mr. Rupp was again reminded via E-mail that he was welcome to view information and documentation residing in the Division offices during office hours and arrange to have copies made by any one of several local vendors in the Carson City area. As of Tuesday, May 29, 2012, Mr. Rupp had not contacted the Division to make any arrangements.*

**Comment 2:** “...Chemetall Foote recently change[d] their corporation name to Rockwood Lithium Specialties ... Question, is this permit being issued to the correct Lithium producer at the Silver Peak Lithium Operation?”

**Division Response:** *Since 2004, Rockwood Holdings, Inc. has been the parent company of Chemetall Foote. Both Rockwood and Chemetall are registered with the Secretary of State. The Division is aware that Chemetall Foote is undergoing a corporate name change to Rockwood Lithium and has notified the Permittee of the administrative requirements and actions that need to be taken. As of Tuesday May 29, 2012, several Bureaus' within the Division had yet to receive any formal notification. Until the Bureau of Mining Regulation and Reclamation receives confirmation, Chemetall Foote Corporation will continue as the Permittee of Record.*

**Comment 3:** “What is source(s) and condition of Metal Lithium transported to Silver Peak for recycling into waters near Silver Peak Lithium Operation...?”...“Metal Lithium is transport[ed]...for disposal in the playa pond (water) system from what other industrial sites and industrial users”...“What standard operating procedures are in place to protect Silver Peak residents from toxic smoke and residues of Lithium Metal Recycling that are emitted into the air and fall (deposited) to earth, dried upon the ground and dispersed into Silver Peak upon/within wind currents and water supplies-aquifers and water supplied to Silver Peak

Lithium Processing facilities?”...“What corrective measures are now in place to prevent recurrence of an explosion that occurred during Metal Lithium Recycling on or about January 29, 2009 that caused a fire and power outage for Nevada Energy customers in and near Silver Peak Nevada?”

**Division Response:** *The Facility receives scrap lithium metal from the Permittee’s Kings Mountain, North Carolina facility and from a toll producer for the purpose of producing lithium hydroxide solution. Scrap lithium metal is added to the non-potable brine ponds where it reacts to produce lithium hydroxide solution. The chemical reaction is exothermic (i.e. releases heat) causing the brine to boil and eventually off-gas hydrogen, which does have the potential to self-ignite at the brine surface. Because of the elevated brine temperatures, steam is released in place of the hydrogen. Hydrogen in itself is not considered a hazardous pollutant.*

*The scrap lithium recycling station is located more than 3 miles from Silver Peak on a peninsula in the middle of one of the largest brine ponds.*

*The Silver Peak Operation extracts lithium-rich brines from several non-potable aquifers. The water supply source for the town of Silver Peak is from an alluvial well southwest of the town and up gradient from the playa. A network of faults prevents communication between the freshwater supply and the playa brines.*

*The incident that occurred on or about January 29, 2009 was the result of a small scale test conducted by the Permittee at the lithium recycling station. During the testing, brine splashed onto one of the Permittee’s electrical power poles. The splashing short circuited and tripped the circuit breakers for the electrical distribution system at the Facility and the Nevada Energy circuit breakers for the town of Silver Peak and surrounding area. All circuit breakers and switching devices functioned as designed and power was restored shortly. The Permittee has since revised operating procedures to eliminate any reoccurrence.*

**Comment 4:** “...[W]hat is considered containment area for water pollution at the Silver Peak NV Lithium facility processing plants?”

**Division Response:** *Containment areas are located around tank farms and wet area of the process facilities. Effluent discharge from the carbonate facility is permitted to return to the closed playa basin through open discharge southeast of the process facility. The brine is allowed to return to the closed basin aquifers which contain non-potable brines.*

**Comment 5:** “What are contamination/pollution/toxic factors and risks from burning Metal Lithium Recycling at Silver Peak Lithium Operations?”...“Air quality is monitored how, in Silver Peak Nevada to protect Silver Peak residents and others from toxic corrosive metal(s) and by-products and other water pollution/contamination generated at and or near Silver Peak Lithium Operation?”...“Oil Boilers at Chemetall are used to heat water making steam for lithium production. What are requirements/specifications of Oil that is burned in the boilers?”

**Division Response:** *Air quality permitting and monitoring concerns are the purview of the Division's Bureau of Air Pollution Control and not the subject of this Permit renewal.*

**Comment 6:** “About 75,000 acre feet of potable water flows INTO [Mr. Rupp's emphasis] Clayton Valley / Silver Peak annually from Fish Lake Valley (Dyer) and Silver Peak's flowing Potable Municipal Water source sits atop Silver Peak's "non-potable saline Playa water" within and enclosed by the parameters of Silver Peak's "Aquifer". And since Silver Peak's Municipal water supply is regularly polluted by Chemetall's "production errors" [Mr. Rupp's quotations] and Chemetall's on-site "Holding Ponds," plus the series of huge, unlined "Evaporation Ponds" which "leak" [Mr. Rupp's quotations] and flow onto and into the ground, including land areas outside of Chemetall's "Containment Berm" -- that includes Silver Peak's only Play Ground where a "pond" forms and dries out leaving Chemetall's "Chemical Soup" [Mr. Rupp's quotations] in the dirt where the children play every day over the years they go through school [sic], and these large-volume "overflows" leach deeply into the ground and effectively "sprinkle" said pollutants onto the surface of Silver Peak's "Potable" water source that flows on the top of the "NON-potable" saline waters within the aquifer wherein said "Potable Water" is then pumped by the County into Silver Peak's Municipal Water System.”

**Division Response:** *Pursuant to data provided by the Permittee and the Nevada Division of Water Resources (NDWR), recharge to the Clayton Valley is between 19,000 to 20,000 acre feet per year with most of the recharge coming from the Smoky Valley Corridor and the Paymaster Corridor, northwest and northeast of Silver Peak. The Silver Peak town water supply is located on the alluvium southwest of Silver Peak and is isolated from the Permittee's lithium brine resource by a naturally occurring faulting system. All of the lithium ponds are located within the non-potable region of the Clayton Valley. The Permittee maintains a monitoring well located between the Facility pond system and the town water supply. A Permit requirement requires this well to be sampled quarterly and all analytical results submitted to the Division.*

**Comment 7:** “Also, there was a period of three years 2002-2005 after the County [Esmeralda County] drilling [sic] a new "Backup Well" for the Municipal Water system that was so polluted with uranium and toxic volcanic compounds the residents suffered with skin lesions, etc., and whatever else these pollutants may have done INSIDE everyone's body, especially CHILDRENS' [sic] bodies [Mr. Rupp's emphasis].”

**Division Response:** *The Esmeralda County water well in question is located on an alluvial fan southwest of the town of Silver Peak within Clayton Valley. The well has no hydraulic connection with the Facility due to the naturally occurring faulting system.*