

FACT SHEET

(Pursuant to Nevada Administrative Code [NAC] 445A.401)

Permittee Name: **First Liberty Power Corp.**

Project Name: **Fencemaker Project**

Permit Number: **NEV2009104**

Review Type/Year/Revision: **Renewal 2016, Fact Sheet Revision 00**

A. Location and General Description

The facility is located on public land in Pershing County, Nevada, within Section 10, Township 26 North, Range 37 East, Mount Diablo Baseline and Meridian, approximately 49 miles southeast of the town of Lovelock.

The Fencemaker Project is an underground mining facility operated for the purpose of extracting antimony ore for off-site crushing and processing at a separately permitted mill facility. No crushing, beneficiation, or long-term stockpiling of the ore is permitted at the site. The Fencemaker Project is permitted as a physical separation facility pursuant to NAC 445A.414 and, as such, no chemicals are permitted to be used or stored at the facility. The facility is required to be designed, constructed and must be operated and closed without any discharge or release in excess of those standards established in regulation except for meteorological events which exceed the design storm event.

In June 2011, the Permittee submitted a minor modification proposing to make the following changes:

1. Increase the permitted size of the surge pile, within the containment area, to 30 feet by 30 feet by 15 feet high;
2. Allow for mining below 5,220 feet amsl;
3. Allow for disposal of waste rock within inactive areas of the underground mine; and
4. Add two 500 gallon (gal) water tanks for storage and recycling of water used for mining (later increased to 2,500 gal each in an Engineering Design Change (EDC) approved by the Division in September 2013).

The minor modification was approved by the Division in July 2012. However, items 2 and 3 were conditionally approved with the requirement that a downgradient monitoring well be drilled to verify depth to groundwater and provide a monitoring point to verify that mining and waste rock disposal do not occur below the water table. Once completed, the static water level in the well was measured by the well driller to be approximately 60 feet below ground

surface (ft bgs), or approximately 5660 feet above mean sea level (ft amsl). The Permit prohibits mining below the measured water table.

B. Synopsis

The mine is located at an elevation of approximately 5720 ft amsl in the Fencemaker Pass in an area of historic antimony mining going back to the first half of the 20th century. Mining activity at the facility includes underground removal of antimony ore (stibnite), with all post mining beneficiation to occur at an off-site, permitted mill (separate permit). Facility components include the underground workings, an ore/waste rock surge pile and loading area at the exit of the underground workings, and a protective berm for diversion of stormwater runoff away from the surge pile. Ore shipments off-site are limited by the Permit to 36,500 tons per year and must be directly shipped to either an out of state facility of a Nevada Permitted facility, approved by the Division, for storage and processing.

Mining in the underground workings will consist of physical removal using a small front-end loader. The mined material (ore and waste rock) is then transported out of the mine and deposited on the surge pile. Upon arrival of the haul truck, the ore will be loaded and transported by the truck to the off-site mill facility. Long-term stockpiling of ore at the site is not allowed by the Permit; the residence period for ore in the surge pile is limited to 20 days and the size of the surge pile is limited to 30 feet wide by 30 feet long by 15 feet high.

Waste rock will be stockpiled on the surge pile until space becomes available in the mine to backfill a stope that is no longer active. In addition, some low grade mined material may return from the process facility and may be used as backfill in inactive areas of the underground mine, subject to Division approval based on material characterization. Surface stockpiling or disposal of any mined material outside of the surge pile containment area is prohibited by the Permit.

Analytical results (Meteoric Water Mobility Procedure – Profile I) of ore and waste rock leachate indicate that antimony (5.7 milligrams per liter [mg/L]), arsenic (0.019 mg/L), sulfate (760 mg/L), and TDS (1900 mg/L) exceed the Profile I reference values. Static test results from representative ore and waste rock samples indicate high neutralizing potential (700 tons/kton) and relatively low acid generating potential (10 tons/kilo-ton total Sulfur). Routine waste rock and ore characterization will continue according to the Permit requirements.

Three-foot high earthen berms have been provided to divert upgradient runoff resulting from the 100-year, 24-hour storm event, around the surge pile and loading area, directing storm water into existing natural drainage courses. In addition, the berm is designed to capture meteoric water within the bermed area, preventing outflow into natural drainages. The base of the bermed area is

compacted to 90 percent of maximum dry density according to American Society for Testing and Materials (ASTM) Method D1557 (Modified Proctor), to minimize infiltration.

Stormwater diversions are also provided to prevent entry of surface runoff into the mine entrance. This includes a culvert to convey stormwater flows from the upgradient roadway which would normally run in the shallow ditch alongside the road. The culvert will direct flows past the mine site and into downgradient ephemeral drainages while still allowing vehicle access to the mine entrance. Diversion structures such as ditches or wattles will be added to the brow of the hill above the mine entrance if necessary to prevent storm runoff from running into the adit (Permit modification and appropriate fee may be required for engineered stormwater diversion ditches).

The EDC of September 2013 upgraded the two 500 gal water tanks to two 2,500 gal water tanks, located them within the underground mine, and established a water management plan for the underground. Any water accumulating within the mine will be collected in one or more sumps and pumped to the first 2,500 gal tank (settling tank). Once sediments have settled sufficiently, the water will be transferred to the second 2,500 gal tank (clarified water tank). Utility water from the Lovelock public water system will also be added to the clarified water tank when necessary to support normal mining activity.

The volume of water pumped to the settling tank will be measured and reported, as well as annual sampling for Profile I parameters. These data will be evaluated over time to quantify the amount of water entering the mine. The water management plan will be revised appropriately if the system as constructed is not able to manage the quantity and quality of water encountered.

C. Receiving Water Characteristics

The Fencemaker Project is located at an elevation of approximately 5,720 ft amsl, with the valley floor, directly down-slope from the mine site, residing at approximately 4,000 ft amsl. According to measurements from the downgradient monitoring well (MW-1), the water table in this area is located at approximately 5,680 ft amsl. Mining below this elevation is prohibited by the Permit.

Profile I analysis of samples of water accumulated in the mine have shown exceedances of iron (1.5 mg/L), arsenic (0.11 mg/L), antimony (2.9 mg/L), and total dissolved solids (TDS – 1,200 mg/L). Analysis of samples from the monitoring well have shown all Profile I parameters within the reference values except for TDS (1,200 mg/L) and pH (8.8 standard units).

Precipitation in the area of the mine is limited to approximately 10 inches annually, mainly as snow in winter and rain in early spring. Runoff on the surface

is ephemeral and runs from east to west into Fencemaker Canyon. No known springs or perennial streams are found within a ½- mile radius of the mine site.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate and close, subject to the conditions within the Permit, is being sent to the **Lovelock Review-Miner** for publication. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to issue the Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions

See Section I of the Permit.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping solution will be placed on required routine inspections of stormwater diversion berms and the area around

the surge pile, as well as sampling of site monitoring wells. Specific monitoring requirements can be found in the Water Pollution Control Permit.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g. by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

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