



STATE OF NEVADA

Department of Conservation & Natural Resources

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DIVISION OF ENVIRONMENTAL PROTECTION

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NEWS RELEASE

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Initial Results of Mercury Fugitive Emissions Research Released

CARSON CITY - Following an extensive, two-year research project funded by the Nevada Division of Environmental Protection (NDEP) and Nevada mining companies, Dr. Chris Eckley, a post-doctoral researcher with Dr. Mae Gustin at the University of Nevada, Reno (UNR), presented today a preview of their research results that quantified mercury emissions to the air from areas disturbed by two active gold mines in Nevada. Although NDEP has been requiring mercury emission controls at specific discharge points at gold mines since 2006, little has been known about the potential for mercury emissions from other non-point source activities.

The research focused on mercury emissions from a variety of surfaces disturbed by mining activities at Newmont's Twin Creeks Mine northeast of Winnemucca, Nev., and Cortez Pipeline, a Barrick property located south of Battle Mountain, Nev. Fugitive emissions from waste rock, heap leaches, tailings impoundments, active pit surfaces, stockpiles and reclaimed sites were estimated and compared to mercury releases from sites undisturbed by mining.

The results showed that mercury emissions from mining disturbances are approximately 20 percent of the mercury emitted by the regulated point sources at these two gold mines. The study showed heap leaching and tailings impoundments produced the greatest emissions. However, the amount of mercury emitted from these types of disturbances can vary significantly among mines, depending primarily on the mercury concentration at the disturbed site, the

moisture content of the tailings and whether or not the heaps are actively being leached with cyanide.

“Because the results show that most of the fugitive emissions come from either the tailings or heaps, these results will allow us to focus future efforts on the non-point sources of greatest importance,” said Leo Drozdoff, NDEP Administrator. “We are pleased to see that, although some mercury is released as a result of mining disturbances, the amount emitted is significantly less than the current point source emissions where we are, and have been, focusing our mercury reduction efforts. The study also shows that current reclamation practices will return these emissions to near natural levels.”

Mercury is a naturally occurring metal that is geologically concentrated in areas with volcanic, geothermal and past hydrothermal activity -- activities that are responsible for forming metal deposits. Because of Nevada’s highly mineralized geology, the state is home to large areas of naturally occurring mercury and that mercury is often associated with gold and silver deposits.

“NDEP will be discussing the results of this study over the next few months with industry and other interested stakeholders to evaluate the need for future research opportunities and the availability of possible management practices to minimize these emissions,” said Dr. Colleen Cripps, Deputy Administrator for NDEP.

The final report will be available after peer review in early 2010.

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