

NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

**STATE OF NEVADA**  
Department of Conservation & Natural Resources

Brian Sandoval, Governor  
Leo M. Drozdoff, P.E., Director  
Colleen Cripps, Ph.D., Administrator

May 13, 2015

Jason Reed  
Senior Environmental Advisor  
NV Energy  
6226 W Sahara Ave M/S 30  
Las Vegas, NV 89146

Re: **NV Energy (NVE)**  
**Reid Gardner Station (RGS)**  
**NDEP Facility ID #H-000530**  
Nevada Division of Environmental Protection (NDEP) Comments and Concurrence with:  
*Laser Induced Fluorescence Investigation Report*

Dear Mr. Reed:

The NDEP has received and reviewed NVE's *Laser Induced Fluorescence Investigation Report*. The report, dated March 9, 2015, was received by the NDEP on March 10, 2015.

The report documents the results of a laser induced fluorescence (LIF) investigation completed at the petroleum source areas within the RGS plant in 2014. The LIF direct-push tool was used to investigate areas within the main plant that might be impacted by light non-aqueous phase liquid (LNAPL). The objectives of the investigation were to 1) delineate the vertical and horizontal extent of petroleum in the subsurface, and 2) establish an area that might undergo potential remediation in the future. A total of 138 LIF locations and 21 confirmation soil borings were evaluated.

The NDEP has the following observations to the LIF report, which do not need a formal response:

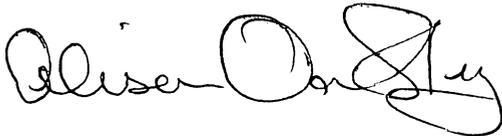
1. The NDEP concurs with the conclusion that the data indicate that the former Diesel AST (SA-12) was not a source.
2. The NDEP notes that the investigation was somewhat limited in the near surface by the fact that an air knife was used to a depth of 6 feet at each location tested to check for underground utilities. Evidence of surface spills that may have been extensive enough to reach groundwater may have been missed due to this methodology. The NDEP notes that NVE has acknowledged this limitation.
3. The distribution of NAPL is somewhat complex. Several factors affecting the occurrence of NAPL will need to be considered in developing a remedial strategy. On page 4-8 the report states that the presence of coarser grained materials would be expected to have lower TPH concentrations. This may be true in areas where NAPL may have moved through the coarser intervals leaving only residual hydrocarbons, but where LNAPL exists it can preferentially stay within larger pore spaces due to capillary forces restricting flow into smaller pores. Also, percent LNAPL saturation tends to be higher in coarse-grained

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materials than in finer-grained materials, so a greater amount of mass can occur in the coarser sediments within NAPL zones.

The NDEP concurs with the conclusions presented in the report. Please contact me with any questions or comments about this letter at (775) 687-9396 or [aoakley@ndep.nv.gov](mailto:aoakley@ndep.nv.gov)

Sincerely,



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Environmental Scientist III  
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NDEP-Carson City Office

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