



STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

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

May 14, 2013

Michael Rojo
Environmental Services, Supervisor
NV Energy
PO Box 279, MS 77
501 Wally Kay Drive
Moapa, NV 89025

Re: **NV Energy (NVE)**
Reid Gardner Station (RGS)
NDEP Facility ID #H-000530
Nevada Division of Environmental Protection Response (NDEP) to:
Draft Preliminary Source Area Identification and Characterization Report (PSAICR),
Dated: November 2012

Dear Mr. Rojo:

The NDEP has received and reviewed NVE's above-identified document dated November 2012. The subject document contains NVE's summary of the potential source areas at RGS, a brief discussion of any previous work done to characterize the sources and NVE's proposed additional characterization. Please review and address the comments from NDEP included in Attachment A.

NDEP requests the specific comments in Attachment A be addressed and that site prioritization be added to the final version of the PSAICR prior to next quarterly meeting. NDEP has determined that Section XIII, Paragraph 6 of the Administrative Order on Consent will not apply to this November 2012 resubmittal of this Deliverable and as such no Stipulated Penalties will be pursued on this issue. Additionally, meeting minutes from September 10, 2009 states "Section XIII.6 of the AOC indicates that if NVE submits a deliverable to NDEP a second time and it still is not approved, this indicates NVE is being unresponsive and stipulated penalties apply. NDEP has provided a second round of comments on the PSAICR; some of which are new; therefore, penalties will not be pursued."

Please contact the undersigned with any questions or comments about this letter at (775) 687-9396 or aoakley@ndep.nv.gov

Sincerely,

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Environmental Scientist III
Bureau of Corrective Actions
NDEP-Carson City Office
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Noelle Gentilli, Department of Water Resources, 1416 9th Street, Room 1118, Sacramento CA 95814

ATTACHMENT A

In general, the PSAICR was well organized and provided a useful summary of the current state of knowledge of reported sources at the site. The review is presented in two parts: general comments on the approach and remedial strategy used to prepare the report and specific comments related to specific sections for individual source areas.

General Comments

Source Area Ranking- As mentioned by NDEP in discussions related to the document, a relative ranking of the individual sources, based on the potential impacts to receptors, primarily through ground water transport is needed. This will provide a basis for future discussion and eventual agreement among the parties on which sources require additional characterization and/or remediation and the appropriate priority for addressing the sources. NDEP suggests the following ranking criteria:

- potential pathways of contamination to receptors,
- observed impacts to groundwater,
- continuing source of contamination,
- likelihood of future impacts to groundwater,
- unknown impacts to groundwater and unknown groundwater conditions, and
- Chemicals of Concern (CoCs).

Based on the above criteria, NDEP proposes an A-C priority ranking system:

A- High priority source areas

- Probable pathways to receptors (e.g. Muddy River) are present
- Current known significant impacts to groundwater
- Continuing source of groundwater contamination can be demonstrated or is probable.
- Address these areas first

B- Medium priority source areas:

- Possible or potential pathway to receptors is present.
- Impacts to groundwater are present or unknown/ground water conditions unknown.
- Continuing source may be present.
- Address these areas as resources become available.

C- Low priority source areas:

- High likelihood that contamination from source will not reach groundwater, pathways to receptors unlikely.
- Source demonstrated to not currently impact groundwater.
- Source release demonstrated or very likely is not continuing.
- De minimums or remediated source.
- Address these areas after A and B priorities are addressed.

Contaminated Material left in place - Contaminated materials have been removed from many of the former ponds to the depth of the current water table, but materials below the water table that may have been impacted by the downward percolation of high TDS brines have been left in place. These materials may act as a continuing source of contamination to groundwater within the foot print of the old pond areas. Additional effort to locate and remediate high TDS sources in saturated sediments beneath the water table may help to shorten the lifespan of the overall remedial efforts, reducing the long term exposure to sensitive receptors via ground water and reducing long term remediation costs for NV Energy.

Groundwater Characterization - Most of the additional groundwater characterization is put into "site-wide groundwater characterization". Grouping all the groundwater into one site-wide category is too broad. The NDEP agrees that groundwater does not need to be evaluated on a source-specific basis; however, groundwater needs to be evaluated in source-grouped areas, such as the pond area, mesa area, fuel-impacted area, etc.

Plant Coal Source - Please provide a brief discussion of the source and composition of the coal for the power plant. The discussion should include the source of the coal and whether the source of the coal and/or coal producing basin has changed significantly during the life of the plant.

Other Potential Source Areas -The area to the south of former pond D and pond E-1 is significantly discolored on aerial photographs, suggesting spills or leakage of liquids from the ponds to the surface to the south. Please provide investigative data relating the area and vertical extent of soil impacts in the area or a work plan for future investigation.

Waste Stream Analysis - Please include a summary table of analysis for typical disposal products generated by the facility during normal operation or reference the appropriate information from the site-related chemicals document. Please include fly ash, bottom ash, slag, scrubber effluent and reactivator solids accordingly.

Specific Section Comments:

Section 2 -Identify the EPA region PRG's referenced in the table.

4.1.1.3 – Agree with conclusions, with the possible exception of volatile organic compounds (VOCs). Please specify which types of VOCs are present. Depending on the source loading and volume of VOCs present, 100 ft of vadose zone may not be protective of groundwater. Continue to monitor downgradient wells, especially KMW-16 and LMW- 6R for VOCs discovered in soil gas and breakdown daughter products.

4.1.2.3- Based on the information provided, NDEP concurs with the conclusions and recommendations.

4.1.3.3- NDEP generally concurs with the conclusions. Please continue to monitor LMW-5R for all CoCs including VOCs.

4.1.4.3- Based on the information provided, NDEP concurs with the conclusions and recommendations.

4.1.5.3- NDEP concurs with the conclusions.

4.1.6.3- Please continue to monitor downgradient wells LMW-4R and KMW-12 for PAHs and VOCs.

4.1.7.3- High concentrations of TCE and relatively significant concentrations of PCE in soil suggest impacts to groundwater may be possible. Please continue to monitor downgradient wells P-7R, P-6R, P-5R and KMW-8R for VOCs and PAHs on a quarterly basis.

4.1.8.3- NDEP concurs with the conclusions and recommendations.

4.1.9.3- NDEP concurs with the conclusions and recommendations.

4.1.10.3- NDEP concurs with the conclusions and recommendations.

4.2.1.3- The likely source of disposal based on historical aerial photography is approximately 250 ft WNW of KMW-19. NDEP generally concurs with conclusions and recommendations.

4.2.2.3- When ponds 4C-1 and 4C-2 are decommissioned solids from beneath the liners should be excavated and removed to historic ground water levels for proper disposal. Additional ground water monitoring wells in the area are recommended to better characterize ground water within the pond footprint area.

4.2.3.3- The MSDS and/or the CoCs present in Betz COR-TROL should be provided.

4.2.4.3- Current groundwater information from the site suggests that a continuing source of contamination may be present in the former pond area. The subsurface clay walls left in place after the demolition of the ponds may have trapped brine below the water table that may have been left in place following removal of the material above the water table. A shallow well approximately 800 ft north of P8-R is recommended to help determine if additional remedial action is needed in the area (also see general discussion on contaminated material left in place).

4.2.5- Indicate in this section that the "E" Ponds have a leak detection system in place.

4.2.5.3- The lateral leakage through the dike walls has been evaluated but the vertical leakage and subsequent impacts noted in groundwater have not been thoroughly evaluated. The NDEP understand that lateral leakage will be assessed as a geologic data gap.

4.2.6.3- NDEP generally concurs that solids should be removed to the water table. Sources beneath the water table should be further investigated and possibly remediated to address potential and continuing sources of groundwater contamination (See general discussion on source removal).

4.2.7.3- NDEP concurs with the conclusions and recommendations.

4.3.1.3- NDEP concurs with the conclusions and recommendations.

4.3.2.2- Check the maximum detected value for TCE listed on Table 4-36 and revise. Values stated in the text are higher than the 4.5 ug/L maximum value reported on the table.

4.3.2.3 The extremely high concentration of p-Isopropyltoluene that appears to have been left in soil at the source is a significant concern. Provide additional data to support that the 4-Isopropyltoluene detected in groundwater is a reliable indicator of contamination from p-Isopropyltoluene.

4.3.3.3- According to the text the UST contained gasoline. Please provide an explanation of why GRO, BTEX, or MTBE analyses were not performed on the soil samples.

4.3.4.3- NDEP concurs with the conclusions and recommendations.

4.3.5.3- NDEP concurs with the conclusions and recommendations.

4.3.6- Many separate and related sources are covered under this evaluation, making it difficult to determine which source or source(s) was the cause of the diesel free product release. The PSAICR should attempt to focus the likely release points of the free product diesel plume. This effort will support appropriate development of a work plan.

NDEP concurs that remediation of the diesel fuel plume should continue.

4.3.7.3- NDEP concurs with the conclusions. NDEP recommends an engineering safety evaluation of the free product recovery system by a qualified environmental engineer to minimize the risk of future releases from the system.

4.3.8.3- Significant levels of MTBE were found in soil for the source area. MTBE was not analyzed in groundwater samples during the investigation. Please analyze future groundwater samples from HM-42 for MTBE.

4.4.1.3- NDEP concurs with the conclusions and recommendations.

4.4.2.3- Bullet 2-Site specific impacts from SA-2 could be determined by installing groundwater monitoring wells directly upgradient of the potential source.

4.4.3.3- Bullet 2-Site specific impacts from SA-3 may be more effectively evaluated by installing groundwater monitoring wells directly upgradient of the potential source.

4.4.4 – There does not appear to be any investigation of the northern coal pile area. NDEP recommends evaluating the North and South coal piles as separate area/sources. Please discuss the source of TPH in soil at the south coal pile.

4.4.5.3- NDEP concurs with the conclusions and recommendations.

4.4.6.3- NDEP concurs with the conclusions and recommendations.

4.4.7.3- NDEP generally concurs with the conclusions and recommendations. Future soil sampling should be compared to background (see general discussion on soil background) as well as regulatory limits to assess the potential impacts to the soil under the pond.

4.4.8.3- The soil investigation was not sufficient because no analyses were performed of any soil samples. An appropriate study would be based on analytical data rather than visual information. Conclusions on potential impacts to groundwater may not be valid without valid soil data. The PSAICR should address this issue.

4.4.9.3- NDEP concurs with the conclusions and recommendations.

4.5- Multiple disparate potential sources were lumped into a single section with a single set of recommendations. Based on the information presented, each of the potential sources should be evaluated and addressed separately. NDEP generally concurs with the conclusions and recommendations but suggests more consideration for each of the individual potential sources.

Appendix D- Potential Source Area Summary:

Table General: Tables are often taken out of reports and used as stand-alone documents. NDEP suggests that the recommendations on the table better reflect the recommendations stated in Section 4 of the report.

Table General: Recommendations for the Source Area site-wide groundwater characterization are too broad. See general comments above.

Table Page 2, PA-2 Recommendation: NDEP would like the recommendation for soil framed in terms of defining the vertical extent of contamination.

Table Page 2, PA-3 Recommendation: Expand the discussion about the interceptor trench and pumping well to include some of the historic information contained on page 4-37 of report.

Table Page 3, PA-7 Recommendation: Update Pond F recommendation to reflect current status of the pond.

Table Page 4, SA-10 Recommendation: VOCs, including TCE, are chemicals of concern for this source area that have not been fully investigated.