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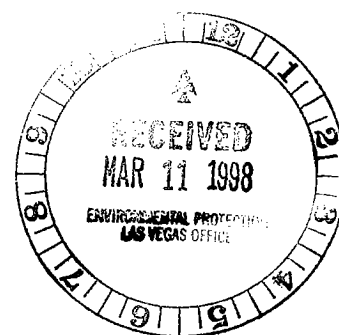
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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138
Carson City, Nevada 89706-0851

March 5, 1998



Susan Crowley
Kerr-McGee Chemical Corporation
8000 West Lake Mead Drive
Henderson, Nevada 89015

RE: Perchlorate Investigation Report

Dear Ms. Crowley:

Division staff have completed review of the report, "Perchlorate Characterization Report: Historical Review Report/Sampling Plan Kerr-McGee Chemical Corporation Henderson, Nevada". In addition, we met with staff of Kerr-McGee Chemical Corporation (KMCC) on 1/21/98 and 2/19/98 to discuss perchlorate activities. The continuing cooperation and assistance of KMCC is appreciated.

Your report and a similar report prepared by American Pacific Corporation provide substantial information with respect to the distribution and potential movement of perchlorate through the subsurface. The additional work proposed by KMCC will assist in filling data gaps and further refine this understanding. However, we are requesting additional investigation and remediation efforts by KMCC in areas closer to Las Vegas Wash. This issue is discussed in more detail below and will be the principal topic of our meeting on 3/10/98.

Our principal comments are that the proposed investigation must result in a level of information which will clearly define the areal extent of the perchlorate plume which originated from the KMCC plant site, the flow paths and fate of the perchlorate and to what extent perchlorate which originated from the KMCC site is discharging to Las Vegas Wash.

As we discussed on 2 /19/98 we are also requesting both companies to expedite remediation activities in the paleochannel located in the vicinity of T. 21 S., R. 63 E., Section 30. We believe this is a location where a significant portion of the perchlorate discharging to the wash is located. This conclusion was reached by using both existing information and making various assumptions about the most likely site conditions that are believed to exist. Additional information will need to be collected to confirm this conceptual model and to support the design of a remediation system in this area. Any water pumped in this area is likely to have a high total dissolved solids content that will eliminate the possibility of discharge to the wash. Evaporation ponds for disposal of this water may be the only viable alternative.

The following information supports our conclusions: 1) perchlorate concentrations in the wash increase significantly in this area, from 10 ppb to 500 ppb; 2) the wash concentration could be changed from 10 to 500 ppb with a relatively small volume (50 g.p.m.) of ground water inflow with a high concentration of perchlorate (1,000 ppm); 3) a principal paleochannel is believed to exist in this area; and 4) calculations of ground water flow through this paleochannel, assuming representative aquifer parameters, yields flows on the order of those described above. Again, we recognize that this is a conceptual model of the hydrologic system, however we believe all existing data supports this conclusion. We expect both companies to participate in the necessary investigations and remediation effort in this area, as appropriate.

Attached are comments from the Southern Nevada Water Authority and the USEPA. Both agencies are also suggesting expedited actions in this same area. The USEPA recommended that remediation systems be operating by June 1, 1998. The Division has proposed that a system be operating within 60 days. We look forward to discussing the technical needs and timing of this effort with both companies.

If you have any questions on these matters please contact me at 687-4670, ext 3127.

Sincerely,



Doug Zimmerman
Chief, Bureau of Corrective Actions

attachments

cc: [REDACTED]

David Donnelly
Kevin Mayer