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Gary S. Janosko, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Docket 40-8905

Dear Mr. Janosko:

RE: DRAFT ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ALTERNATE CONCENTRATIONS LIMITS AT THE RIO ALGOM MINING CORPORATION LLC URANIUM MILL FACILITY, AMBROSIA LAKE, NEW MEXICO, DOCKET NO. 40-8905 - LICENSE NO. SUA 1473

This transmits New Mexico Environment Department (NMED) staff comments concerning the above-referenced Draft Environmental Assessment (DEA).

Surface Water Quality

Affected Environment

Arroyo del Puerto is considered a Water of the U.S. It is unclear from the surface water discussion in the DEA that Rio Algom Mill has permit coverage under NPDES for the current pump and treat system that discharges to the Arroyo del Puerto. This should be made clear and it should include the type of permit coverage for this specific discharge and the permit number. It should also be made clear that NPDES permit coverage will continue if an alternative is chosen.

Environmental Impacts

It is stated in the DEA that the proposed action will improve water quality in the Arroyo because ground water will no longer be discharged and that flows will return to storm events. Is there some evidence that water quality will improve or is this theoretical? This should be explained better in the document.

Are the adverse affects on threatened and endangered species the only concern for NRC. The Arroyo del Puerta is also a Water of the State and thus should meet the water quality standards for all designated uses as presented in the State of New Mexico Standards for Interstate and Intrastate Surface Water (20.6.4 NMAC).

Ground Water Quality

On November 8, 2004, the Department's Ground Water Quality Bureau provided the U.S. Nuclear Regulatory Commission (NRC) with comments related to the ACL petitions at the RAM Ambrosia Lake facility. Please refer to the November 8, 2004 NMED letter for more detail. The NMED is concerned about several issues raised in the draft environmental assessment:

1. Introduction, Page 1, second paragraph. Although the State of New Mexico is not an agreement state with regard to licensing authority, the State still maintains its authority to regulate ground water and discharges at the RAM facility. As a clarification, in 1986 NMED became a non-agreement state for uranium mill sites, so the federal licensing is administered by NRC. Since the New Mexico Water Quality Control Commission (WQCC) Regulations were adopted in 1977, NMED has continuously regulated ground water at the RAM mill and mine site facilities.
2. Introduction, Page 1, fourth paragraph. As written, the values selected for ACLs would not be supportable under the New Mexico WQCC Regulations process where an alternative abatement standards petition will be required for several of the same parameters plus other non radiological parameters. The requested ACLs are based upon site data at an adjacent site rather than the current or historical water quality on site. The requested ACLs are also substantially higher than concentrations ever observed at the site. The basis for using such high concentration values for ACLs is not clear. The draft environmental assessment seems to acknowledge that analysis and modeling of site-specific data was not a workable basis by the statement, "In 2000 and 2001, Rio Algom proposed in its application to revise the listed background concentrations for the constituents by basing the revised concentrations on an updated analysis that includes additional data and modeling. During the course of review, Rio Algom abandoned this line of reasoning and argued that the safety of the public would be maintained if Rio Algom was granted the revised standards." The values selected do not appear to be "as low as reasonably achievable", as required for NRC approval. The values do not represent measured concentrations at the site or even predictions that may occur in the future. The ACLs also omit nitrate, chloride, sulfate and total dissolved solids contamination at the site.
3. The Proposed Action, Page 2. The environmental assessment does not include a map or identify monitoring wells, which would delineate the point of exposure (POE) boundary (e.g., Figure 1.2, RAM, May 2001 ACL application) and locations for point of compliance (POC) wells (e.g., Table 3, RAM response letter, February 9, 2004. NRC Accession No. ML0404304190).
4. The Proposed Action, Page 2. The final reclamation plan for the Section 4 Evaporation ponds may substantively change contamination issues at the site. Until the plan is resolved, it does not seem appropriate to set ACLs and the monitoring well network. Otherwise, there may be

two source areas that continue to generate contamination, which may move into or out of the alluvial aquifer.

5. The Proposed Action, Page 2; and Monitoring Page 5. The environmental assessment should reference the details of the post-remediation monitoring program even if it will undergo revision in the near future. The protectiveness of the program greatly depends upon the specific monitoring wells, parameters, frequency of sampling events, and duration of sampling. The POC wells, trend wells, and sample parameters appear to be selected in Table 3 and Table 4 (i.e., RAM response letter, February 9, 2004. NRC Accession No. ML0404304190). However, the well selection omits testing for nitrate, sulfate and total dissolved solids in the alluvium. These parameters currently exceed New Mexico state ground water standards in several wells.
6. Alternatives to the Proposed Plan, Page 3. In the environmental assessment it is stated that alternative treatments would not provide substantial benefits to justify the costs. However, a cost-benefit analysis and the costs of alternative treatments are not provided.
7. Affected Environment, Site Location and Geology, Page 3. As a clarification, NMED recommends inserting the word "unlined" as follows, "...transfer system to the unlined tailings impoundments." The discussion should include the information that the evaporative ponds were unlined until the 1980s, and, over decades of use, the lined ponds have also leaked.
8. Affected Environment, Surface Water, Page 3. Prior to mining activities, the alluvium recharged underlying aquifers, even if episodically. Prior to NPDES permitting, local mines discharged process water to the Arroyo del Puerto, which flowed into the San Mateo Alluvium. The subsurface flow in the Arroyo del Puerto also flows into the San Mateo Alluvium. Ground water in the San Mateo alluvium has been used directly by well owners and serves to recharge the underlying Chinle aquifers.
9. Environmental Impacts, Ecological Resources, Page 5. The draft environmental assessment does not evaluate the migration of residual contaminants in the alluvial aquifer from the Section 4 Evaporation pond area. After the termination of the alluvial cutoff trench, there is a potential for an increase in contaminants from the tailing impoundments or residual contamination in the alluvium that is no longer hydraulically contained. The monitoring program should monitor and detect these problems, if they occur.

If you have any questions regarding the above, please contact Kevin Myers at (505) 476-3506.

We appreciate the opportunity to comment on document this project.

Sincerely,



Gedi Cibas, Ph.D.
Environmental Impact Review Coordinator