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MEMORANDUM FOR: Dan Martin, Section Leader
URPSFROM: Myron Fliegel, Section Leader
WMGT

SUBJECT: PROGRESS OF WMGT GENERIC UMTRAP AND UR PROJECTS

This letter summarizes the status of three generic projects and their importance to the UR program, so they can be continued by the newly expanded Uranium Recovery Projects Section. In addition to generic projects such as Title II site Alternate Concentration Case studies, the DOE Water Protection Plan, and various DOE guidance documents, there are some projects of generic importance that are in various stages of development which have never entered into the formal tracking system. A description of these projects, their importance and status follows.

The first project investigated the effects of tailings salts on pile and cover stability and on contaminant transport. This potential problem was identified by DOE contractors in several studies of UMTRAP sites. The significance of the effects of tailings salts have not been addressed by DOE or by NRC. Our proposed plan of action was to (1) determine if this is a problem of significant concern and (2) if it is determined to be a significant problem, identify how reclamation activities should be conducted. In order to accomplish this, we have asked, in draft comments transmitted to DOE on the Grand Junction Draft Remedial Action Plan, that this issue be addressed in a generic and site specific sense. Tin Mo (geochemistry) has been instrumental in formulating this question and following it through. It is recommended that he be kept informed of progress through the resolution of this issue. Further, should it be required, we are ready to provide his assistance.

The second project deals with the measurement of hydrologic parameters for covers and liners, when projected ground water impacts are dependent on covers or liners having specified hydrologic characteristics. This issue was first encountered at the Canonsburg site. A meeting between the NRC technical staff was held on September 22, 1986, to begin work on this issue. At question is whether laboratory or insitu tests are more reliable in determining hydrologic parameters of as built covers and liners. The staff has not reached a consensus on how this issue should be resolved. Until resolution is reached, it was agreed that laboratory tests should continue to be used. A memo describing the results of this meeting, with recommendations, is in

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preparation. Resolution of this issue has application at UMTRAP sites, Title II sites, and Low Level Waste sites.

The third project attempts to address the issue of establishing excursion criteria for ground water monitoring at licensed UMTRAP sites. At the present time DOE "Guidance For UMTRA Project Surveillance and Maintenance" (Section 4.4, page 63) requires the collection of one year of ground water monitoring data after reclamation activities are complete. This data will become the new baseline water quality data for the site. The guidance requires that ground water continue to be monitored and, if significant increases in ground water pollution are identified, a more intensive compliance ground water monitoring program be implemented. The compliance monitoring program would define the extent of contamination and be used to determine the appropriate response. However, to accomplish this, ground water quality monitoring parameters will have to be identified and excursion criteria established. At this time the NRC has not developed guidance on how to identify and set excursion criteria at UMTRAP sites. Further, personal conversations with DOE personnel and contractors indicate that they have not formulated such guidance. The first need for this will occur at the Canonsburg site in 1987.

While no guidance currently exists to address this issue in UMTRAP, other UR programs have or will have to develop similar guidance. Title II sites will set indicators using concepts of indicator parameters and Alternate Concentration Limits as defined by RCRA. Uranium in situ leach mines have also had to define excursion criteria. In the past, in situ leach criteria appear to have been set on a site by site basis with no consistency. However, some guidance for in situ leach facilities can be found in NUREG/CR-3967, "An Analysis of Excursions at Selected In Situ Uranium Mines in Wyoming and Texas" (pages 34-42). The UMTRA program may wish to reference this past experience in developing its guidance.

Should you have any questions please contact William Ford (74697).

151

Myron Fliegel, Section Leader
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