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MEMORANDUM FOR: Leo B. Higginbotham, Chief
Low-Level Waste Licensing Branch

FROM: James A. Shaffner
Low-Level Waste Licensing Branch

SUBJECT: MEETING NOTES FOR AUGUST 26, 1983 - RESTON, VIRGINIA

Enclosed are the meeting notes for the August 26, 1983 meeting which was held to provide an overview of USGS research activities at Sheffield Low Level Waste Disposal Facility.

Original Signed By

James A. Shaffner
Low-Level Waste Licensing Branch

Enclosure:
As stated

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SEP 26 1983

MEETING NOTES - USGS, RESTON, VIRGINIA
AUGUST 26, 1983

NRC Participants: Leo Higginbotham, Branch Chief, WMLL
Maxine Dunkleman, WMLL
Jim Shaffner, WMLL

Persons Contacted: Jack Robertson, USGS, Reston, VA
Jack Fischer, USGS, Reston, VA
James Foster, USGS, Champaign, IL

Purpose Discuss status of present and future USGS activities at the Sheffield Low Level Waste Disposal Facility (LLWDF)

SUMMARY

Leo Higginbotham requested an overview of USGS research activities at Sheffield in light of current efforts to reach agreement on closure and decommissioning of the site. Fischer gave a summary of the USGS activities. He prefaced his remarks by saying that USGS perceived the site as a field laboratory for analyzing the hydrogeologic behavior of radioactive waste sites in humid environs. Fischer then gave an overview of the scope and time frame of various USGS projects at the site. For the past several years Foster has been working on characterizing the ground water flow in the vicinity of the site. Fischer expected this work to be completed in a year or two. Rick Healy is working on characterizing the unsaturated flow regime. This work is expected to continue for at least three more years. The USGS tunnel beneath a portion of the site is an integral part of this work. John Gray is working on characterizing surface water flow at the site. Fischer anticipated that this work would be completed in three years. Finally, USGS plans to begin a gaseous transport study this October which, Fischer believes, will take about three years to complete. The overall objective of these studies will be to analyze transport pathways at humid sites.

Higginbotham referred to ongoing efforts by NRC, US Ecology, and the State to agree on a decommissioning plan for the site. He asked Fischer, if decommissioning was implemented what impact such implementation would have on USGS studies. Fischer concluded that all surface studies and

some of the ground penetrating studies would be jeopardized by closure and decommissioning activities. He said, however, that he understood the NRC position regarding closure and USGS would cooperate if site closure activities became a reality.

Shaffner explained that the NRC staff felt that USGS activities could be divided into those which were related to licensing and those that were related to research. NRC is interested in bringing licensing studies to a conclusion as rapidly as possible. Further, it is NRC's position that research activities may continue at the site so long as they do not jeopardize elements of site closure. An obvious question in this regard related to the USGS tunnel. USGS plans to use the tunnel for research for at least several years into the future. Fischer says however that USGS has an agreement with the State that the State will take over the responsibility for the tunnel (including decommissioning) after USGS no longer needs it.

Finally we talked briefly about the status of the Tritium Migration Study. Foster mentioned that progress has stalled because of lack of success in ground water velocity studies. US Ecology's attempts to characterize velocity using borehole dilution techniques were unsuccessful. USGS wants to use tracers but thus far US Ecology has been unwilling to fund tracer tests to the level that USGS feels is necessary. US Ecology has offered \$3,000 for the study. USGS feels it will take up to \$10,000.

No agreements, commitments, or conclusions other than those discussed above resulted from this meeting.