

March 13, 1997

MEMORANDUM TO: Sher Bahadur, Chief
Waste Management Branch
Division of Regulatory Applications, RES

FROM: John H. Austin, Chief
Performance Assessment & HLW Integration Branch
Division of Waste Management, NMSS

SUBJECT: REQUEST FOR STAFF ASSISTANCE ON DEVELOPMENT OF PERFORMANCE
ASSESSMENT CODE FOR HIGH-LEVEL WASTE

NMSS and CNWRA staff are improving computational programs for evaluating high-level waste (HLW) disposal at Yucca Mountain. A part of this effort is directed at improving approaches developed during Phase 2 of the Iterative Performance Assessment (IPA) effort. Certain aspects of the current improvements are directly related to activities undertaken by Dr. Ralph Cady during his involvement on Performance Assessment Working Group (PAWG) activities conducted for low-level waste disposal. Specifically, Dr. Cady was the key individual working on: 1) implementation of time-varying velocities in the NEFTRAN II code, 2) development of an algorithm to determine peak dose, and 3) movement of water into an opening in the unsaturated zone. This valuable experience is directly transferrable to similar efforts currently underway in the HLW performance assessment activity.

Dr. Cady's assistance would significantly expedite and improve the development of the Phase 3 IPA system code. Tim McCartin of my staff estimates that 3-6 weeks of Dr. Cady's time would be needed over the next 4-8 weeks to accomplish the IPA tasks. I would like to discuss the availability of Dr. Cady's time at your earliest convenience.

Contact: Tim McCartin, DWM/PAHL
415-6681

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