UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 24, 1997

MEMORANDUM TO: Joseph J. Holonich, Chief
Uranium Recovery Branch, DWM/NMSS

FROM: John H. Austin, Chief [signature] for
Performance Assessment and HLW
Integrations Branch, DWM/NMSS

SUBJECT: RIFLE SITE OBSERVATION WORK PLAN 1996

PAHL staff have reviewed the 1996 Site Observational Work Plan for the Rifle sites and identified one comment and one observation:

[C1] Until and unless it is demonstrated that risks to human health from fishing in Old Rifle pond or swimming in the pond are not significant, it would be prudent that such activities be considered potentially hazardous. The pond is located approximately 500 ft west of the former tailings pile at a point where the groundwater gradient is to the southwest. At the suggestion of Don Metzler of DOE, we examined the Baseline Risk Assessment. We found that DOE has analyzed one fish (in 1991): found lead-210 (quantity not reported, p 2-7 of BRA); radium-226 (200 pCi/kg, p 4-11 of BRA); and uranium (240 pCi/kg, p 4-11 of BRA). This analysis is insufficient to define the risk.

Further, we believe the 0.054 kg (2 oz) portion size on the days the individual eats fish is too small. NRC's REGGUIDE 1.109 specifies fish consumption rates much higher than that used by DOE. Finally, it is unclear why DOE dropped Ra-226 and Pb-210 from the dose analysis, particularly when the fish examined exceeds the upper end of the risk limit for Superfund.

We recommend that in the interim until DOE can determine the risks from eating fish from the pond by conducting further analyses on fish for U; Ra-226 and 228; Po-210; Th-230; and Pb-210; that DOE post a sign(s) warning of the potential risks from eating fish caught in the pond. PAHL suggests that at least one sign be visible from each potential approach to the pond. The current sign in the current location is not having the desired effect, as is evident from the fact that fishermen continue to be sighted. If DOE finds that the signs are not effective in keeping people from fishing in the pond, then it may need to further control access until the hazard level is determined to be not a health risk.

[O1] The failure to specify which aquifer is being considered for which strategy causes confusion and requires the reader to spend time trying to determine which one is being considered. Only the alluvial aquifer appears to have rapid flushing times. Only the shallow, intermediate, and deep Wastach

CONTACT: Rose M. Byrne, DWM/PAHL
415-6609

Delete: Al NuS

9.1.84 NH

aquifers are potentially limited use aquifers on the basis of possible widespread ambient non-uranium mine and/or mill contamination which cannot be cleaned up by a drinking water plant of the type used in the region. DOE's study of drinking water plants is ongoing. It therefore seems that DOE is in a position to state in its letter that it hopes to use natural flushing for the alluvial aquifer and no action for the deeper aquifers. Of course, as the SOWP states, current data must be augmented before a final choice of remediation strategy can be made. The SOWP states that the preliminary choice of treatment strategy is either no action or natural flushing without specifying the aquifer.

TICKET NO: PAHL# 30

DISTRIBUTION: w/or w/o att:

Central File	NMSS r/f	JThoma	PAHL r/f	PAHL t/f
JHolonich	MBell	PSobel	DWM r/f	JHickey

s:\dwm\pahl\mrb\rsowp3

Mark Small Boxes in Concurrence Block to Define Distribution Copy Preference.
In small Box on "OFC:" line enter: C = Cover E = Cover & Enclosure N = No Copy

OFC	PAHL		PAHL		PAHL						
NAME	RByrne/wd		KMcConnell		JAustin						
DATE	1/31/97		1/24/97		1/24/97					1/ /97	

OFFICIAL RECORD COPY

In small Box on "DATE:" line enter: M = E-Mail Distribution Copy H = Hard Copy

PDR : YES ___ NO X Category: Proprietary ___ or CF Only X
ACNW: YES ___ NO X
IG : YES ___ NO X Delete file after distribution: Yes X No ___

aquifers are potentially limited use aquifers on the basis of possible widespread ambient non-uranium mine and/or mill contamination which cannot be cleaned up by a drinking water plant of the type used in the region. DOE's study of drinking water plants is ongoing. It therefore seems that DOE is in a position to state in its letter that it hopes to use natural flushing for the alluvial aquifer and no action for the deeper aquifers. Of course, as the SOWP states, current data must be augmented before a final choice of remediation strategy can be made. The SOWP states that the preliminary choice of treatment strategy is either no action or natural flushing without specifying the aquifer.