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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10 HANFORD PROJECT OFFICE  
712 SWIFT BOULEVARD, SUITE 5  
RICHLAND, WASHINGTON 99352

June 2, 1994

Paul Pak  
U.S. Department of Energy  
P.O. Box 550, A5-19  
Richland, Washington 99352

Re: Regulator Review of Description of Work for 200-BP-5  
Multiple-Use Wells

Dear Mr. Pak:

Enclosed is a copy of the Environmental Protection Agency's  
review of the 200-BP-5 Description of Work for Multiple Purpose  
Wells.

If you have any questions or concerns regarding this letter,  
please contact me at (509) 376-8665.

Sincerely

Paul R. Beaver  
Unit Manager

Enclosure

cc: Dave Erb, WHC  
Dibaker Goswami, WDOE  
Darci Teel, WDOE  
Curt Wittrich, WHC  
Administrative Record, 200-BP-5 operable unit



### GENERAL COMMENTS

The Description of Work (DOW) makes no mention of using the cone penetrometer to help determine better location(s) for additional wells. One additional section should be added to the DOW describing the use of the cone penetrometer, with dates included.

Wells should be screened to a level higher than the water level in the aquifer. For example, if the aquifer is only 3 feet thick, it would be prudent to lengthen the screened interval above the water table. This would create a more suitable well for reinjection.

The wells should be drilled some distance into the confining basalt layer. And in addition to screening the wells above the water table, the wells should also be screened below the top of the basalt layer. This will permit the pump to be set lower in the well, allowing for a greater drawdown or cone of depression, thus possibly achieving higher pumping rates.

The DOW needs to have a diagram indicating the configuration of the wells.

Some consideration should be given to another area for well drilling. Looking at the direction of ground-water flow as shown in another publication (Figure 4.1 in Schatz and Ammerman, 1988, Ground-water maps of the Hanford site separations area-December 1987) indicate putting the new wells due south of 699-50-53A would seem a reasonable alternative to the current plan. There is a possibility that the area between the BY cribs and well 50-53A will contain a higher concentration of contaminants than the area currently chosen.

### Appendix A.

The Data Quality Objectives are comprehensive and appear well thought out. Are there contingency plans for difficult sampling conditions? Have the well drilling notes from previously drilled wells (i.e.; 50-53A) been reviewed for descriptions of drilling conditions in the area? Those notes could allow better planning for sampling methods.

### SPECIFIC COMMENTS

1. **Section 3.3, page 10, First Paragraph.**  
Although the objective of these wells is to access the aquifer, physical samples should be taken at all lithologic changes or perched water zones if encountered.
2. **Section 3.3, Page 11, Third Paragraph, First Sentence.**  
Geologic logging should be conducted throughout the soil column.