

101.2

PDR-1  
PDR-WM-10 (2)



### Department of Energy

Richland Operations Office  
WM DOCKET CONTROL CENTER  
P.O. Box 650  
Richland, Washington 99352

'87 AUG 20 4 1987

87-LES-121

Mr. Doug Clausing, Supervisor  
Water Resource Management  
State of Washington  
Department of Ecology  
Northwest Regional Office  
4350 150th Avenue, N. E.  
Redmond, WA 98502-5301

WM Record File 101.2  
WM Project 10  
Docket No. \_\_\_\_\_  
PDR   
LPDR  (B)

Distribution:  
Youngblood Wastler  
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(Return to WM, 623-SS) Map located in the Dec

Dear Mr. Clausing:

#### DEPARTMENT OF ENERGY HANFORD SITE WATER RIGHTS PERMIT APPLICATION FOR ACTIVITIES RELATED TO THE BASALT WASTE ISOLATION PROJECT (BWIP)

This is in response to your letter of July 31, 1987, requesting additional information to support the subject application. Enclosed in that regard is a map detailing both the location of the points of diversion from the Columbia River, and the location of areas where the water is to be used. Also enclosed is a narrative which addresses estimates of the maximum instantaneous quantity needed from the point of diversion, a clarification of which sites will be supplied water via tanker deliveries and which will be served by pipeline, and a best current estimate of peak and average use which would be applied to any month or season throughout the year.

We wholeheartedly agree that a meeting should be held at the earliest possible date with appropriate representatives from my staff and yours to resolve any residual technical concerns which you may have. We believe that from a technical standpoint, the permitting issues are relatively straightforward, and, in that regard, we believe that our request for a permit (particularly a temporary permit) can be handled in the manner of any comparable industrial-scale activity requiring such a permit. Based on this rationale, we request that the temporary permit be issued by August 24, 1987. If this date cannot be met, please advise us immediately and provide your best estimate of when it will be issued.

Also, discussions with your staff have revealed the need for a separate meeting to discuss legal issues attendant to the permanent permit. We will be pleased to participate in this meeting, which I understand has been set for August 28, 1987, in your office.

With regard to your request for the Environmental Regulatory Compliance Plan, as indicated previously, this document will be released to the State of Washington and other interested parties in the Fall of 1987, following the completion of our internal review process. As there are no issues in the document pertaining to the BWIP water rights permit application, which we have not addressed in this and previous correspondence, we do not believe that your review of our application will be hindered in this regard.



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Department of Ecology

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AUG 14 1987

We hope that the information provided in this transmittal is responsive to your concerns. J. E. Mecca (509) 376-5038, and S. C. Whitfield (509) 376-2048, of my Licensing Staff, would be pleased to respond to any additional information which you may need.

Sincerely,

*R.P. Saget for.*

John H. Anttonen, Assistant Manager  
for Commercial Nuclear Waste

BWI:SCW

Enclosures

cc: Correspondence Mailing List, w/encls.

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Ralph Stein, Director  
Engineering and Geotechnology  
Division, RW-23

## Basalt Waste Isolation Project

### Supplemental Information for Water Permit Application

The following items numbered one through five address the request for additional technical information necessary to properly define the scope of the Basalt Waste Isolation Project (BWIP) water permit application.

1. Location of points of diversion from the Columbia River within the 1/4, 1/4, section, township and range.

The river pumps 181-B and 181-D which deliver water from the Columbia River to reservoirs in the 100 B and 100 D Areas are identified on the enclosed map. The facilities at 100 B are normally in use, and those at 100 D are on standby. This map indicates the 1/4, 1/4, section, township, and range of these pumps.

2. The maximum instantaneous quantity needed from each diversion.

The 100 B pump station has the capability to withdraw water at a rate of 98.9 cubic feet per second (440,400 gallons per minute). Of this withdrawal, less than 1% can be attributed to BWIP site characterization activities. Therefore, the maximum instantaneous quantity needed (for fire protection) would be approximately 4,000 gpm.

3. Descriptions of the areas where water will be utilized.

The Near Surface Test Facility and the Exploratory Shaft Site are identified on the enclosed map by 1/4, 1/4, section, township, and range. Boreholes previously identified in prior correspondence are not shown on this map. Specific locations for drilling the majority of these boreholes have not been selected at this time. If necessary, borehole locations could be provided on a case by case basis. Boreholes are routinely located using Washington State plane coordinates, and we believe this method of identification is preferable to 1/4, 1/4, section, township and range.

4. Identify which sites will be supplied water via truck delivery and which will be served by pipeline.

Only the Near Surface Test Facility and the Exploratory Shaft Facility are currently served by pipeline. Water utilized for drilling or borehole development is trucked to the activity location.

5. Clarify water use as it may occur at various times throughout the year.

It is currently not possible to provide an accurate and unchanging picture of BWIP water use on a monthly or seasonal basis because many of the uses are intermittent and changes in requirements, plans, and procedures routinely impact schedules. Therefore, we believe that the best approach for estimating BWIP water use is to look at conservative estimates of BWIP's water requirements.

Below we have identified an average water usage number which was calculated by dividing the total estimated water requirement for site characterization by length of the program (6 years). We have also calculated a peak usage number based on lumping together all site characterization activities which could conceivably occur in a one month period. Estimates of borehole water use were made conservatively, plus a 10% contingency was added for all uses.

Total BWIP Water Use 1987-1992 (plus 10%): 77,479,000 gallons

Average Use: 1,076,000 gallons/month

Peak Use<sup>1</sup>: 5,523,000 gallons/month

Activity	Peak Use (gal)	Assumption
ESF Mud Conditioning	3,066,000	All mud conditioning takes place in a one (1) month period.
ESF Surface Construction	45,000	Average monthly use
ESF Domestic Water	125,000	Average monthly use
NSTF Construction and Testing	167,000	Two (2) months of average water use used in a single month
NSTF Domestic Water	100,000	Average monthly use
Borehole Drilling and Development	2,020,000	Two (2) months of average water use used in a single month
<b>TOTAL</b>	<b>5,523,000</b>	

see pocket 4 of 1987 101.2  
in enclosure

DON'T SAY IT --- Write It!

DATE 8/12/87

TO Harold Revere

FROM Elaine Cotter

DOE-AMC  
FTS 444-6839

Please find enclosed the info. you requested.  
GTB 78, 79, 80, 81, 83, 84, 87, 88

+ "TO MAKE LIFE LAST, PUT SAFETY FIRST" +

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