



State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Acting Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

FILE COPY

June 3, 2004

Ms. Sue Odekirk, P.E.
PacifiCorp
1407 West North Temple, Suite 330
Salt Lake City, UT 84116

Subject: Huntington Power Plant Ground Water Discharge Permit
Application Notice of Deficiency (Permit No. UGW150002)

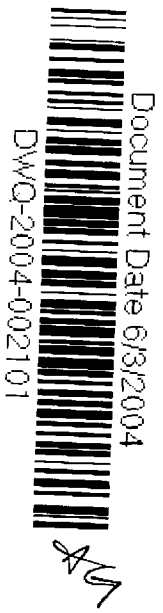
Dear Ms. Odekirk:

We have reviewed the ground water discharge permit application for the Huntington Power Plant, which was hand-delivered at our meeting on May 4, 2004. The application does not contain enough information, as required under the Ground Water Protection Rules (UAC R317-6-6.3), for us to develop permit conditions to insure that the various discharges at the plant site are properly evaluated, monitored and controlled.

There are two possible ways to proceed with the permitting process at this point. The Division of Water Quality (DWQ) can delay issuance of the permit until adequate information has been obtained to allow development of all necessary permit conditions. Alternatively, a preliminary version of the permit may be issued which requires submission of the additional information before appropriate deadlines, in a compliance schedule. Under this scenario, as new information is received in the future, a revised version of the permit would be issued to incorporate new permit conditions developed from that information. Because PacifiCorp voluntarily requested this permit to be issued, DWQ does not have any deadline for permit issuance. Therefore, PacifiCorp may choose which option for permit issuance it prefers. If you choose to have the permit issued soon, based on the available information and with a compliance schedule, please review the additional information listed below, which will be needed eventually, and propose a timetable for submission of the various reports.

At the Huntington Research Farm, the land application has been ongoing since the late 1970s. Any effects that the land application has had on ground water quality were superimposed on the naturally complex patterns of ground water chemistry at the site, which reflect influence from both Huntington Creek and the Mancos Shale. The first set of monitor wells at this site were not constructed to modern standards and data from them are suspect, so it is not possible to accurately define the background water quality from before the

6/4/04
FB



start of the land application. Nevertheless, it appears that several wells have had significant increases in nitrate and boron since the 1980s. New wells were constructed in 1997, and data from them show that nitrate and boron concentrations have risen significantly since 2000. This seems to be adequate evidence that PacifiCorp's activities have affected ground water quality, and the situation needs to be addressed under the Corrective Action rules for ground water, UAC R317-6-6.15. According to the regulations, PacifiCorp must conduct a Contaminant Investigation into this rise in contaminant concentrations in the ground water. Unless it can be proven that the observed trends in ground water chemistry were not due to PacifiCorp's activities, a Corrective Action Plan must be proposed, based on the findings of the Contaminant Investigation, to prevent further contamination and restore ground water quality to the appropriate levels.

It seems probable that some of the rise in contaminant levels seen in monitor wells at the Research Farm was due to the flow of ground water influenced by the combustion products landfills. A new monitor well drilled downgradient of the old landfill, LF-70, shows high levels of nitrogen. The old landfill, therefore, is a source of ground water pollution and the new landfill, because the same wastes are currently disposed there, is a potential source of pollution. Most likely, the source of ground water contamination is the scrubber slurry disposed in the landfills, which contains 80% moisture. PacifiCorp must propose discharge minimization technology for the old landfill to bring the discharge of contaminants to the lowest level practicable.

Since 2002, PacifiCorp has disposed of combustion wastes at a new landfill. Available information strongly suggests that these same wastes caused ground water pollution at the old landfill site. Under these conditions, it seems appropriate that the current, active combustion waste disposal should not cause any discharge of contaminants to the subsurface. The Ash Landfill Operations Manual that was submitted as part of the permit application does not specifically address prevention of discharge to the subsurface. If the Contaminant Investigation finds that ground water pollution was due to leakage of liquids from the old landfill, PacifiCorp must revise the design and operations of the new landfill to prevent such leakage. Landfill design should be justified by application of the HELP computer model or similar models for DWQ approval.

PacifiCorp has identified several other features, including water retention ponds and coal facilities, that could potentially cause a discharge of contaminants to ground water. We currently do not have enough information on these facilities to determine their actual threat to ground water, and whether they should be covered under the permit or whether they qualify for permit-by-rule status under UAC R317-6-6.2. PacifiCorp has installed monitor wells at these sites and is currently collecting ground water samples from them. The potential impact posed by each of these facilities must be evaluated before we can determine the appropriate regulatory actions for them.

The determination of permit conditions and permit-by-rule status for a particular facility depends on its potential threat to cause ground water pollution. This threat depends on several factors, which may include the nature and volume of the discharge, the quality of the receiving ground water, the hydrogeology of the site and factors specific to the facility such as engineered containment structures, best management practices and operational plans. PacifiCorp should

present adequate information on each of these facilities so we can make this determination. Comparison of ground water chemistry at upgradient and downgradient wells may not provide an accurate assessment of the threat to ground water, particularly with deep wells, which have been drilled at several of these sites.

In summary, PacifiCorp should submit the following information before permit issuance, or propose dates for completion of the necessary activities that would become Compliance Schedule items in a permit which could be issued earlier:

1. A Contaminant Investigation and Corrective Action Plan for the Research Farm and the old Combustion Waste Landfill.
2. If, as seems likely, discharge of liquids from the new Combustion Waste Landfill must be prevented, a revised landfill design and operations plan with justification for the specific proposals.
3. Evaluations of any threats to ground water posed by the water retention ponds and coal facilities.

Please respond with your preferred options for the permitting process. Please contact me at (801) 538-6518 if you have any questions.

Sincerely,

MTN

Mark Novak
Ground Water Protection Section

cc: Lonnie Shull
Ed Hickey
Southeast Utah Health Dept.
Dave Ariotti, District Engineer

Huntington Canyon Plant
P.O. Box 680
Huntington, Utah 84528
(801) 687-4000
(801) 636-4000



January 20, 2004

MTN

Mr. Mark Novak, E.H. Scientist
State of Utah
Department of Water Quality
288 North 1460 West
Salt Lake City, UT 84116

Dear Mr. Novak,

Enclosed is the Huntington Plant Water Quality Report for the year 2003. Annual graphs for each sampling site are included. As per our agreement, semi-annual sampling is done to monitor surface and ground water around the Huntington Research Farm.

Included are maps showing the locations of all surface and ground water sampling points, along with topography and the locations of any PacifiCorp facilities, such as ash disposal sites, which may affect ground water quality.

Data from the Huntington Research Farm is reported separately this year. Surface water and groundwater data are also reported separately. Monitoring well and surface data are listed according to area with up gradient and down gradient listed separately. Each graph and table is appropriately labeled and arranged in a logical order from top to bottom (elevation). Groundwater elevations in the wells and the flows in the Huntington River and Duck Pond Drain are also reported. A specific section graphed by constituent for each farm area or surface area is also included.

A question about the sampling site of the surface water sampling site H-11, Huntington Spring, came to light during the fall 2003 sampling event. Apparently during a change in sampling personnel in spring 1997, the sampling site of H-11 was moved to a different spot. This new site was in a totally different water source. A sample was taken from the site of the original H-11 during the fall 2003 sampling event, and the analysis matches the results from the pre-1997 samples. It has been determined by interviewing all the samplers from before 1997, that the original site, Huntington Spring, was sampled consistently and that the change occurred in 1997. The H-11 graphs and tables have been divided into the two separate sites as sampled. Site H-11 will continue to be Huntington Spring and H-10 will become Duck Pond Inflow.

If there are any questions or comments, please feel free to contact Brad Giles at 748-6576, or send correspondence to Hunter Research Farm, P.O. Box 826, Castle Dale, Utah 84513.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Sharp".

Dave Sharp
Plant Manager

dg/BG

enclosures

RECEIVED

FEB 23 2004

**DIVISION OF
WATER QUALITY**