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Public Service Company of New Mexico
Person Generating Station
Groundwater Treatment System

Treatment Effectiveness Report
Third Quarter 2001

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Report Prepared Pursuant to Requirements Contained in:

The Person Generating Station Corrective Action Directive (NMT 360010342)
and
The New Mexico Environment Department Discharge Plan, DP-1006

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Executive Summary

Contour maps of the three primary contaminants of concern, PCE, DCE, and TCA, are shown in Figures 10, 11, and 12, respectively. These contour maps indicate the areal extent of the groundwater plume and the associated contaminant concentrations within the plume. The contour maps are prepared twice per year using data from the spring and fall sampling events.

Figure 10 indicates that the low PCE concentration zone (5 ppb to 20 ppb) and the moderate PCE concentration zone (20 ppb to 100 ppb) have remained approximately the same in size since October 2000. However, the high PCE concentration zone (100 ppb to 200 ppb) that was present in the October 2000 contour map has disappeared. Figure 11 indicates that the low and moderate DCE concentration zones have changed shape slightly since last October. Figure 12 indicates the reappearance of a small, low concentration TCA plume.

Due to the locally declining groundwater table, PSMW-16 had become hydrologically stranded and has been out of service during the past several quarters. PSMW-24 has been out of service during the past several months due to a damaged pump.

During May and June 2001, construction activities were initiated for the drilling of two new extraction wells to replace PSMW-16 and PSMW-24. The two new extraction wells were brought online in September 2001.

In July 2001, construction activities began on the installation of a pilot-scale treatment system that uses air sparging followed by granular activated carbon as an alternative to the existing air stripper/acid injection system.

Over the past several quarters, the air stripper/acid injection system has experienced frequent operational problems and has required extensive maintenance in order to remain in service. The pilot-scale system configuration is a much simpler system. Consequently, if it is able to meet the required treatment effectiveness, it should significantly reduce operational problems and maintenance requirements of the GTS.

I. Introduction

This report is prepared pursuant to requirements contained in the Person Generating Station Corrective Action Directive (NMT360010342) issued by the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau, and requirements contained in Discharge Plan DP-1006 issued by the NMED Groundwater Protection and Remediation Bureau.

This report contains information on sampling results and operational activities at the Person Generating Station Groundwater Treatment System (GTS). The GTS is designed to extract volatile organic compound (VOC) contaminated groundwater, treat through an air stripper and granular activated carbon (GAC) filter, and discharge the treated water to an irrigation pond at the UNM Championship Golf Course.

Figure 1 is a site map of the Person Generating Station vicinity and shows monitor well and extraction well locations.