

**PROJECT SPECIFIC PLAN AND FUNCTIONAL REQUIREMENTS AND DESIGN  
BASIS DOCUMENT FOR THE INSTALLATION OF THE SOUTH FIELD  
GROUNDWATER EXTRACTION SYSTEM**

**05/19/95**

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**Department of Energy**  
Fernald Environmental Management Project  
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Cincinnati, Ohio 45253-8705  
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**MAY 19 1995**  
DOE-0976-95

Mr. James A. Saric, Remedial Project Director  
U.S. Environmental Protection Agency  
Region V - 5HRE-8J  
77 W. Jackson Boulevard  
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**PROJECT SPECIFIC PLAN AND FUNCTIONAL REQUIREMENTS AND DESIGN BASIS DOCUMENT  
FOR THE INSTALLATION OF THE SOUTH FIELD GROUNDWATER EXTRACTION SYSTEM**

The purpose of this letter is to transmit, for your review and approval, the Project Specific Plan (PSP) and Functional Requirements and Design Basis Document for the installation of eight groundwater recovery wells in the vicinity of the South field at the Fernald Environmental Management Project (FEMP). The restoration and protection of the Great Miami Aquifer is one of the highest priorities at the FEMP. Since funds are available under the remaining Fiscal Year 1995 (FY 95) budget to proceed with construction of an initial phase of the \$160 million, 28-well aquifer restoration system outlined in the Operable Unit 5 (OU5) Feasibility Study (FS), the Department of Energy, Fernald Area Office (DOE-FN) would like to proceed as quickly as possible.

This initial phase of the groundwater remediation will focus on the area of the aquifer that exhibits the highest uranium concentrations and accompanying longest remediation time. The locations of the proposed wells have been evaluated in the groundwater modeling simulations conducted for the OU5 FS, and are ideal for this "early start" initiative. Additionally, the well locations, attendant piping and utility plans will accommodate groundwater reinjection, should the U.S. Environmental Protection Agency (U.S. EPA), Ohio Environmental Protection Agency (OEPA), and DOE-FN collectively determine that reinjection is a necessary course of action.

The enclosed PSP for the installation of the South Field extraction system outlines the requirements and activities necessary to install eight new recovery wells, and to convert the FEMP's existing pumping test well for inclusion as a recovery well. DOE-FN recognizes that the activities outlined in the PSP are proposed in advance of the required schedules for OU5's Remedial Design and Remedial Action (RD/RA) as required by the Amended Consent Agreement, and that the U.S. EPA and OEPA are only approving the installation

of this initial phase of the system at this time. A follow-up plan as a component of the formal RD/RA process (outlining interim operations and discharge requirements) will be developed and transmitted to the U.S. EPA and OEPA for review and approval prior to the proposed South Field system beginning operation.

In the event that funding is found to be unavailable to expedite the installation of these eight wells, the program would be completed later as an element of the formal RD/RA process for OU5 under the terms of the Amended Consent Agreement.

As a companion to the PSP, the Title I South Field Extraction System Functional Requirements and Design Basis document is enclosed. This document is a necessary first step in the development of a procurement package for obtaining a construction contractor, and outlines the engineering basis for the recovery wells, piping network, utilities plan, and tie-ins to the existing South Plume system. We have included the functional requirements document in order to provide supporting information for your review of the PSP.

The FEMP would like to implement this PSP this summer, following approval by both the U.S. EPA and OEPA. To this end, DOE-FN would like to schedule a meeting for late May, or early June, to discuss the PSP and resolve any outstanding issues the agencies may have.

If you have any questions, please contact Robert Janke at (513) 648-3124 or Kathi Nickel at (513) 648-3166.

Sincerely,

*for* *Johnny Reising*  
Jack R. Craig  
Fernald Remedial Action  
Project Manager

FN:RJJanke

Enclosures: As Stated

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cc w/encs:

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