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**COMMUNITY RELATIONS PLAN FOR THE  
WASTE PIT AREA STORM WATER RUN-OFF  
CONTROL REMOVAL ACTION JUNE 1990**

05/31/90

# **Community Relations Plan for the Waste Pit Area Storm Water Run-off Control Removal Action**

**Feed Materials Production Center (FMPC)  
Fernald, Ohio**



June 1990

**U. S. DEPARTMENT OF ENERGY  
OAK RIDGE OPERATIONS OFFICE**

# **Community Relations Plan for the Waste Pit Area Storm Water Run-off Control Removal Action**

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## 1.0 OVERVIEW

This Community Relations Plan (CRP) has been prepared to guide the community relations activities of the U. S. Department of Energy (DOE) to support the development and implementation of the Waste Pit Area Storm Water Run-off Control Removal Action at the Feed Materials Production Center (FMPC) located near Fernald, Ohio. The scope of this removal action can be broadly defined as management of radioactively contaminated storm water run-off from the waste pit area at the FMPC. The fundamental objective of the removal action is to protect public health and the environment by controlling the release of storm water run-off which has uranium concentrations exceeding the proposed DOE-derived concentration guides (DCGs) for surface water discharge.<sup>1</sup>

The removal action is being conducted pursuant to the CERCLA Consent Agreement (CA) between DOE and the U. S. Environmental Protection Agency (EPA). This CRP follows the guidance offered in EPA's Community Relations Handbook (EPA/540/6-88/002) and supplements the overall community relations program of the FMPC as identified in the Community Relations Plan for the Remedial Investigation and Feasibility Study at the U.S. DOE FMPC.

This removal action is designed to comply with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, known as Superfund, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) of 1990 (40 CFR 300.415(m)). The CA, relevant laws such as CERCLA and SARA, and the NCP describe the process to be followed during a removal action.

Community relations activities relating to storm water run-off control at the FMPC are designed to achieve two overall objectives. These are:

- To ensure that interested parties are provided with information necessary to understand key issues and decisions relating to the storm water run-off control.
- To provide opportunities for the community to comment on documents that support DOE's decision to take the recommended removal action.

This CRP presents an overview of the FMPC, the Remedial Investigation/Feasibility Study (RI/FS) and its relationship to the Waste Pit Area Storm Water Run-off Control Removal Action, a discussion of contamination associated with storm water run-off, a community profile, and highlights of the community relations activities to support the Waste Pit Area Storm Water Run-off Control Removal Action.

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<sup>1</sup> The DCG is the concentration of a radionuclide in air or water (in this case water) that, under conditions of exposure for one year by one exposure mode (i.e. ingestion of water), would result in an effective dose equivalent of 100 millirems (mrem).

## 2.0 SITE BACKGROUND

### FMPC Background

The FMPC is composed of 1,050 acres that are located in the Greater Miami River valley, approximately 20 miles northwest of downtown Cincinnati. The FMPC lies within two counties, 850 acres in Hamilton and 200 acres in Butler. The geographic location of the FMPC is presented in Figure 1.

Although the two counties are generally urbanized, the area immediately surrounding the FMPC is primarily rural and dominated by agriculture, with some light industry and scattered residences. Residential, commercial, and light industrial development exist along the Great Miami River and highway corridors. Commercial and public land uses include sand and gravel operations along the Great Miami River, industrial facilities, parks, and primary and secondary transportation corridors. One recreational park, the Miami Whitewater Forest, lies approximately five miles southwest of the FMPC. It is one of the largest parks in Hamilton County and is used primarily during the summer. Approximately 20 percent of the 2,260-acre park is available or may be developed for public use (i.e., golfing, paddle boats). The remainder is dedicated as a wildlife sanctuary. The National Register of Historic Places lists four prehistoric Indian sites within a three mile radius.

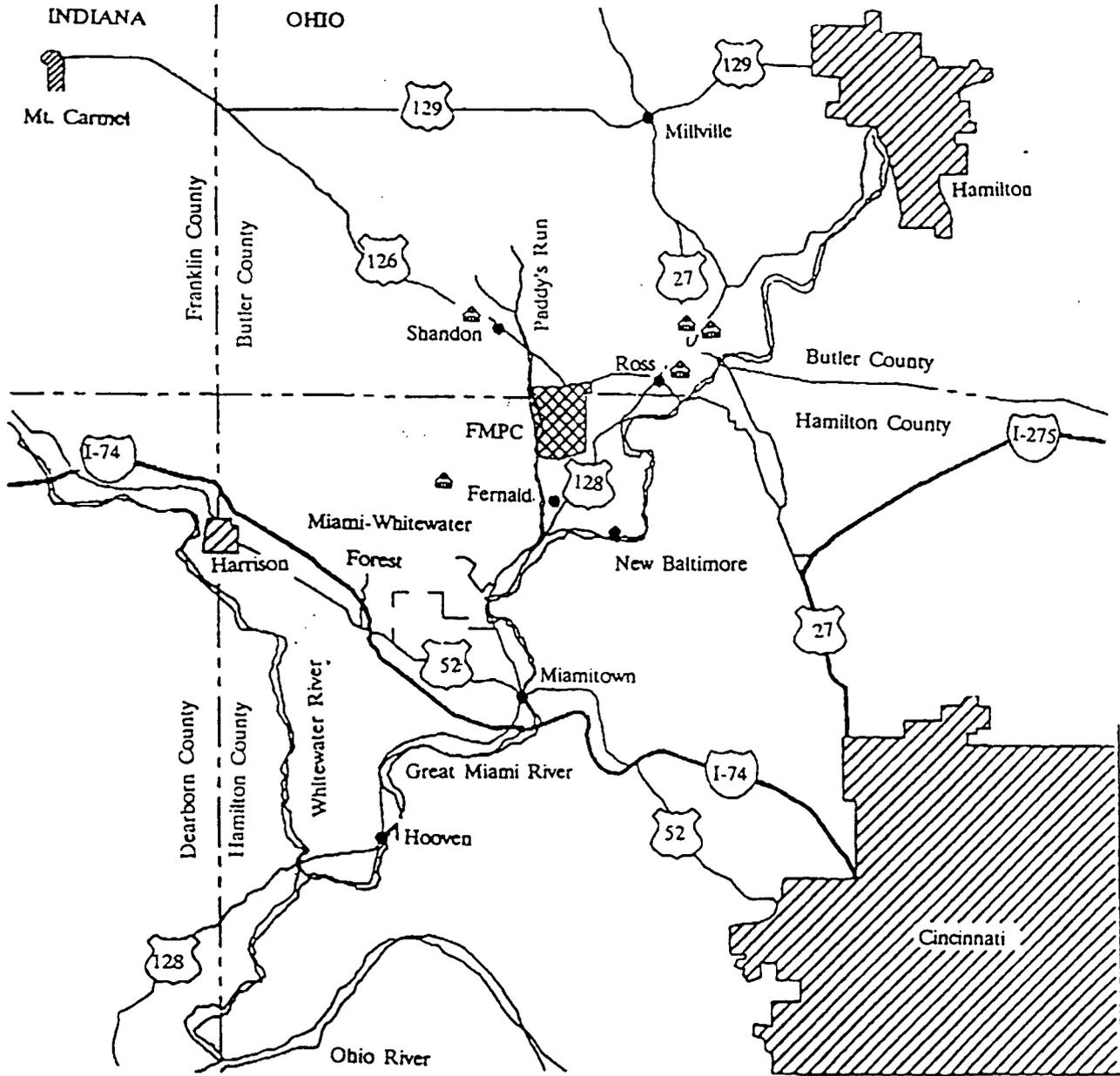
Figure 2 is a site map for the FMPC. Construction was started in 1951 and the property was operational as a production site in 1952. The facility was originally under the auspices of the Atomic Energy Commission (AEC), followed by the Energy Research and Development Administration (ERDA), and currently, the U.S. Department of Energy (DOE). From 1951 to 1985, the FMPC was managed by National Lead of Ohio, Inc. (NLO) under contract with the government. In 1986, Westinghouse Materials Company of Ohio (WMCO) assumed management of the FMPC.

The FMPC's mission has been to convert uranium ore concentrates and recycle materials to either uranium oxides for shipment to gaseous diffusion plants or machined uranium ingots and billets for manufacturing fuel cores used in production reactors as part of the U.S. nuclear weapons program. The principal product was purified uranium metal in various physical forms.

Solid waste materials associated with uranium metals production are presently stored on site in steel drums awaiting further processing or off-site disposal at approved facilities. Prior to 1985, solid and slurried wastes from FMPC processes were disposed of in the on-site Waste Storage Area. This area, which is west of the production facilities, includes six low-level radioactive waste storage pits, two earthen-bermed concrete silos containing K-65 residues (high specific activity, low level radium-bearing residues resulting from the pitchblende refining process), one concrete silo containing metal oxides, two lime sludge ponds, a sanitary landfill and all affected adjoining areas.

Two fly ash piles are located approximately 3000 feet south-southeast of the Waste Storage Area. One pile remains active for the disposal of fly ash from the FMPC boiler plant. An area north of and adjacent to the fly ash piles, known as the Southfield Area, is believed to be a former disposal site for construction debris and possibly other types of solid wastes from FMPC operations.

FIGURE 1 - Regional Location of the Feed Materials Production Center



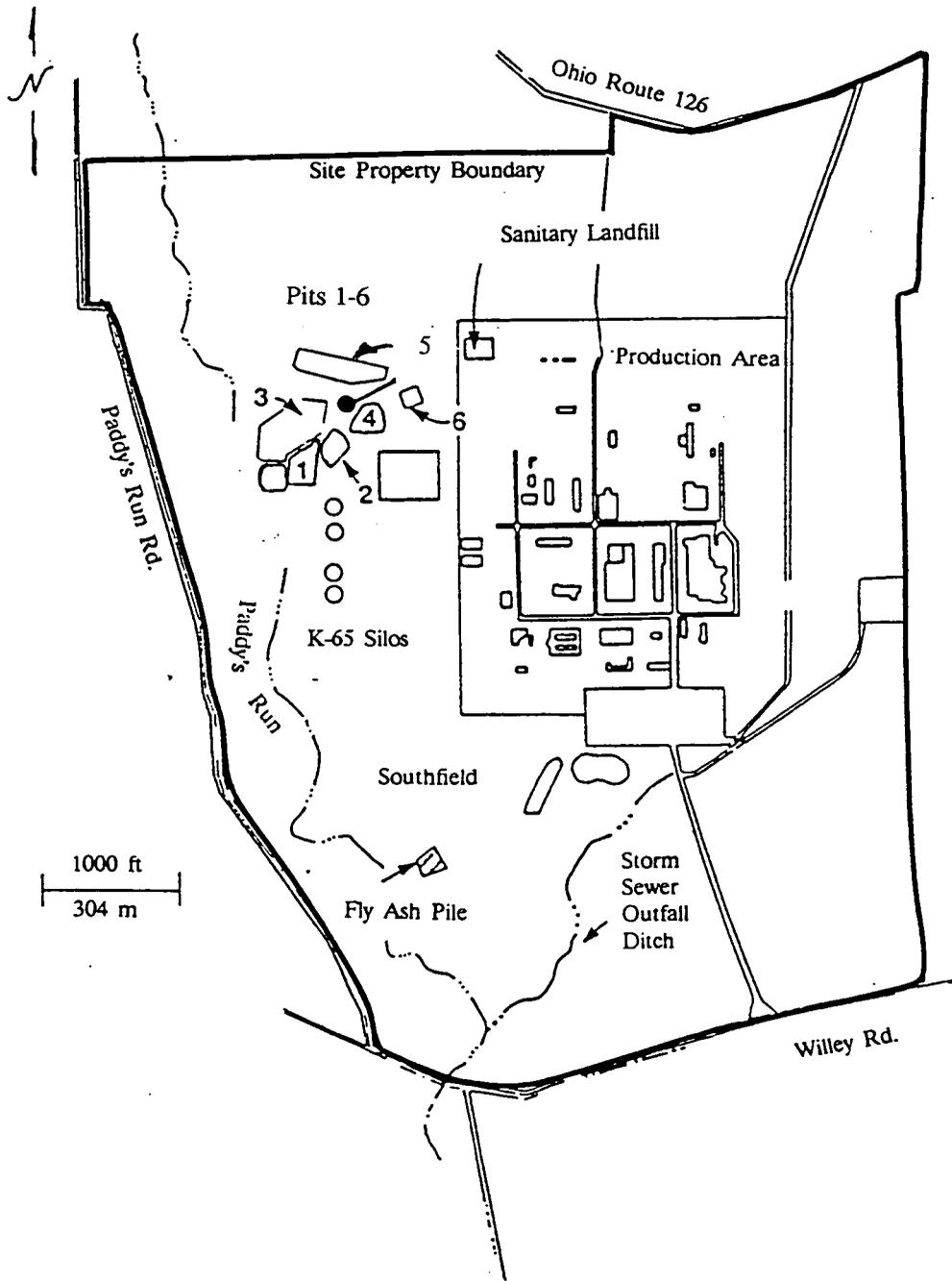
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SCALE  
IN  
MILES

FIGURE 2 - Simplified Site Map of the Feed Materials Production Center



Surface water runoff from the Waste Storage Area, fly ash piles, and other affected areas within the western portion of the FMPC could enter Paddys Run Creek, a tributary of the Great Miami River. Paddys Run Creek originates north of the FMPC and flows south-southeast along the western edge of the site, and for a part of the year it is a dry stream bed with occasional rainfall-induced flows.

Leachate from these same areas can potentially migrate vertically to the Great Miami Aquifer which underlies the site. This aquifer serves as a principal source of domestic, municipal, and industrial water throughout the region.

Liquid waste effluent generated from FMPC process operations is sent through wastewater treatment facilities for treatment and analysis prior to release to the Great Miami River through the main effluent line. The main effluent line to the Great Miami River represents a National Pollutant Discharge Elimination System (NPDES) permitted discharge for wastewater from the FMPC.

The DOE is the Lead Agency responsible for the FMPC and the implementation of this removal action. The Ohio EPA and the U.S. EPA have oversight responsibility over DOE for this removal action.

**Background of Waste Pit Area Storm Water Run-off Control Removal Action**

On July 18, 1986, a Federal Facility Compliance Agreement (FFCA) was jointly signed by the DOE and the U.S. Environmental Protection Agency (U.S. EPA) pertaining to environmental impacts associated with DOE's Feed Materials Production Center (FMPC) in Fernald, Ohio. The FFCA is intended to ensure that environmental impacts associated with past and present activities at the FMPC are thoroughly and adequately investigated so that appropriate response actions can be formulated, assessed, and implemented.

In response to the FFCA, and consistent with the new CERCLA Consent Agreement signed by DOE and U.S. EPA in April 1990, a Remedial Investigation and Feasibility Study (RI/FS) is in progress pursuant to the CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA). The technical strategy adopted for the RI/FS is to issue distinct RI/FS reports for each of the five identified operable units at the FMPC.

Operable Unit 1 includes those facilities utilized for the storage/disposal of radiological and chemical wastes from FMPC operations. Related facilities that now contain similar type wastes are also included. These facilities include Waste Pits 1, 2, 3, 4, 5, and 6; the burn pit; and the Clearwell. Analytic results indicate that elevated concentrations of uranium are present in the storm water run-off from the waste pit area. The storm water run-off from the waste pit area has the potential to migrate into Paddys Run Creek. The on-site and off-site areas of the Great Miami Aquifer that exhibit elevated levels of uranium are important elements of Operable Unit 5. Operable Unit 5 includes those environmental media that serve as migration pathways and/or environmental receptors of radiological or chemical releases for the FMPC.

Because of the potential threat to human health and the environment, DOE is pursuing a removal action to control the storm water run-off from this area prior to the outcome of the RI/FS and the implementation of a final remedial action for the waste storage units. The scope for this removal action can be broadly defined as management of radioactively contaminated storm water run-off from the waste pit area (drainage areas are shown in Figure 3).

Removal actions, as described in Section 300.415 of the NCP, are primarily intended to abate, minimize, stabilize, mitigate, or eliminate a release or a threat of release prior to a final action if there is a threat to public health or welfare or the environment. A second reason for implementing a removal action is to mitigate contaminant migration pending final action if site conditions permit a straightforward mitigative action and if significant migration would occur in the interim if no action is taken. Additionally, based on revisions to this portion of the NCP, the Waste Pit Area Storm Water Run-off Control Removal Action will be consistent with the anticipated long-term remedial action, and will contribute to the efficient performance of the long-term remedy to the extent practicable.

A removal action for the storm water run-off control has been deemed appropriate, based on the above criteria. The Waste Pit Area Storm Water Run-off Control Removal Action is a non-time critical removal action since more than six months' time is available for planning. An engineering evaluation/cost analysis (EE/CA) has been performed to analyze removal action alternatives and to support DOE's selection of a preferred alternative. The storm water run-off control EE/CA will be used by DOE as the basis for remedy selection and implementation. (Refer to Section 4.0 of this CRP for EE/CA availability.)

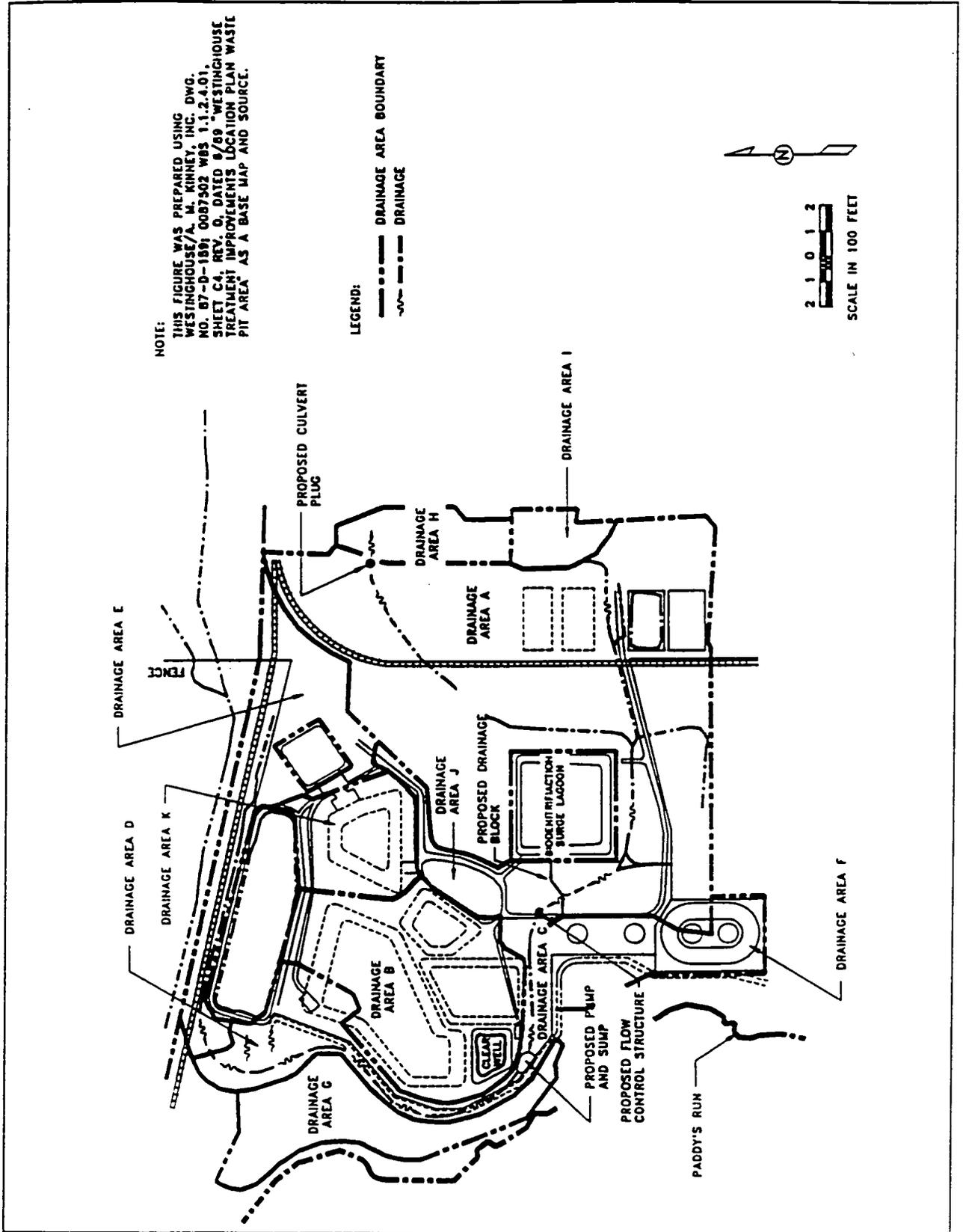
**Background Information on Contamination Related to This Removal Action**

Solid waste materials associated with uranium metals production are presently stored on site in steel drums awaiting further processing or off-site disposal at approved facilities. Prior to 1985, solid and slurried wastes from FMPC processes were disposed of in the on-site Waste Storage Area. This area, which is west of the production facilities, includes six low-level radioactive waste storage pits, two earthen-bermed concrete silos containing K-65 residues (high specific activity, low-level radium-bearing residues resulting from the pitchblende refining process), one concrete silo containing metal oxides, two lime sludge ponds, a sanitary landfill and all affected adjoining areas.

Surface water run-off from a portion of the waste pit area and other affected areas within the western portion of the FMPC enters Paddys Run Creek, a tributary of the Great Miami River. Paddys Run Creek originates north of the FMPC and flows south-southeast along the western edge of the site and, for a part of the year, is a dry streambed with occasional rainfall-induced flows.

Leachate from these same areas can potentially migrate vertically to the regionally important Great Miami Aquifer which underlies the site. This aquifer serves as a principal source of domestic, municipal, and industrial water throughout the region. A portion of the flow in Paddys Run Creek is also known to enter this aquifer downstream from the waste pit area as a result of leakage through the stream bottom.

FIGURE 3



### 3.0 COMMUNITY BACKGROUND

The combined population of Hamilton and Butler Counties is 1,153,800. Hamilton County has 874,100 inhabitants and Butler has 279,700. Most of the communities surrounding the FMPC are unincorporated towns varying in population from 39 at Fernald to 3,000 in Ross.

The township is the basic unit of government in the immediate FMPC area. Ross and Morgan Townships are located in Butler County and Crosby Township is located in Hamilton County. Township representatives participate in emergency preparedness activities and are on the notification mailing lists of FMPC. There are no retirement homes or hospitals within five miles of FMPC. Five schools are located within two to three miles. Air monitoring stations and emergency warning systems are located near the schools. A detailed discussion of the local community profile and the community involvement with the DOE at the FMPC is provided in Section 3 of the RI/FS CRP (March 1990).

Community information and involvement activities which are related to the Waste Pit Area Storm Water Run-off Control Removal Action include:

- Public reading rooms have been open to the public since 1985 in the Administration Building of the FMPC and in the Lane Public Library in Hamilton. Two additional reading rooms were established in 1989; at the suggestion of a local resident, materials were placed in the Greater Cincinnati and Hamilton County Main Library in downtown Cincinnati in July and in response to community requests, in the Public Library in Harrison, Ohio in September. (Appendix A of the FMPC RI/FS CRP provides locations, telephone numbers and hours.)
- The FMPC Update began publication in 1987 and had been the primary communications tool with the local community until regular public meetings began to be held in 1989. The FMPC Update is issued on an "as needed" basis (approximately four times a year) and distributed to nearly 900 persons who asked to be on the FMPC mailing list. The FMPC Update covers a wide range of activities and recently has given more attention to RI/FS topics, although this is not its primary focus.
- In 1989 and 1990, five community meetings were held to discuss the RI/FS and included discussions of the Waste Pit Area Storm Water Run-off Control Removal Action. RI/FS-specific fact sheets are prepared and distributed during these community meetings and through the public reading rooms. Area residents submit comment cards during or following these meetings.
- An Administrative Record for the RI/FS and all removal actions was established in 1989 and placed in the reading rooms in the FMPC Administration Building and in the Lane Public Library.

- A series of community roundtable meetings was initiated in 1990 to discuss a wide range of FMPC issues with area residents. These roundtables are typically informal small groups. Area residents have shown high interest in groundwater contamination, including storm water run-off control.
- WMCO Public Affairs makes regular reports to local township trustees and attends trustee meetings.

The FMPC RI/FS CRP identifies a range of community concerns and information needs. The local community concerns about the RI/FS that apply to the Waste Pit Area Storm Water Run-off Control Removal Action are as follows:

- The effect of surface water contamination on human health
- The effect of surface water contamination on property value
- The effect of aquifer contamination on human health
- The effect of aquifer contamination on property value
- The fear of a FMPC plant closing prior to aquifer clean-up

A common concern identified in the interview efforts is an underlying distrust of information that has been provided by U.S. DOE.

**4.0 COMMUNITY RELATIONS GOALS AND ACTIVITIES**

Members of the community have asked DOE to demonstrate: (1) that DOE deserves their trust; (2) that the contamination problems at the FMPC can be cleaned up; and (3) that DOE is pledged to doing the job that is necessary to clean up contamination at and near the FMPC. These sentiments have been expressed frequently by the community during interviews, at public meetings, in the media, and during informal contacts.

Consistent with these community sentiments, DOE will focus on communicating three major messages during the implementation of the Waste Pit Area Storm Water Run-off Control Removal Action community relations effort. These messages are:

- Credibility/Trust: DOE is committed to sharing all relevant information about the Waste Pit Area Storm Water Run-off Control Removal Action with the public in an accurate and timely manner.
- Capability: The environmental problems at the FMPC, including controlling the storm water run-off, are solvable. Technologies exist to identify and solve the majority of the environmental problems associated with the waste pit area storm water run-off.
- Commitment: DOE is committed to cleaning up the FMPC, including the Waste Storage Area, and the nearby environment.

Waste Pit Area Storm Water Run-off Control Removal Action community relations activities will include the following (schedules for the community relations activities are included in Section 5.0 of this community relations plan):

- An Administrative Record File pertaining to this removal action has been established and will be updated at all AR File locations consistent with NCP criteria, to include the plans and memoranda regarding the planned removal action. (See Appendix A of the FMPC RI/FS CRP.) This will include the EE/CA document.
- A Notice of Availability (NOA) and brief description of the EE/CA document for the Waste Pit Area Storm Water Run-off Control Removal Action will be placed in at least one major local newspaper (with a large local and area circulation). The NOA will also announce the associated public comment period.
- A brief description of the removal action will be placed in the next planned issue of the RI/FS progress report.
- A fact sheet regarding the removal action will be developed and mailed to groups and individuals identified in Appendix C and D of the FMPC RI/FS CRP.
- A period of 30 days will be established for the submission of public comments after the EE/CA is submitted to the U.S. EPA. Extension to the public comment period may be granted based upon the timely request of interested parties. Requests for such an extension may be made to:

Gerald W. Westerbeck, Site Manager  
 U. S. Department of Energy  
 Feed Materials Production Center  
 P. O. Box 398705  
 Cincinnati, OH 45239-8705  
 Telephone: 738-6655

All requests for extension must be made by the end of the initial 30 day comment period. The U.S. DOE will respond to any significant concerns by publishing a Responsiveness Summary.

- A workshop to explain the Waste Pit Area Storm Water Run-off Control EE/CA will be held in the beginning of the public comment period, Wednesday June 6, 1990. Verbal comments to the EE/CA document will be accepted at the workshop.

Key U.S. DOE, U.S. DOE contractor and regulatory agency contacts are:

**DOE/DOE CONTRACTORS AT THE FMPC**

**Contacts During Business Hours:**

Andy Avel		513-738-6161
Department of Energy RI/FS Manager	(FAX)	513-738-6650
P. O. Box 398705		
Cincinnati, OH 45239-8705		

Susan Wolinsky		513-738-3100
RI/FS Community Relations Task Leader	(FAX)	513-738-3207
Advanced Sciences, Inc.		
P. O. Box 475		
Ross, OH 45061-0475		

Pete Kelley		513-738-6644
Public Affairs Manager	(FAX)	513-738-6968
Westinghouse Materials Company of Ohio		
P. O. Box 398704		
Cincinnati, OH 45239-8704		

**Evening and Weekend Contact:**

FMPC Security		513-738-6295
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**U.S. EPA**

U.S. EPA Hotline		800-621-8431
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Catherine McCord		312-886-1478
Remedial Project Manager	(FAX)	312-886-1489
U.S. EPA - Region 5, HR-12		
230 S. Dearborn Avenue		
Chicago, IL 60604		

Dan O'Riordan		312-886-4359
Superfund Community Relations Coordinator	(FAX)	312-353-1155
U.S. EPA - Region 5, HR-12		
230 S. Dearborn Avenue		
Chicago, IL 60604		

## OHIO EPA

Ohio EPA, Southwest District Office  
40 South Main Street  
Dayton, OH 45402-2086

513-285-6357  
(FAX) 513-285-6249

Graham Mitchell, Project Coordinator  
For questions about specific areas, contact the following staff in Dayton:

Mike Starkey, Corrective Actions  
Rich Bendula, Groundwater  
Martyn Burt, Water Pollution Control  
Paul Pardi, Hazardous Waste  
Jim Crawford, Emergency Response  
Dan Riestenberg, Emergency Response

Al Frank, Community Relations  
Ohio EPA 1800 Watermark  
Columbus, OH 43266

614-644-2160

### Departments of Health in Ohio

Ohio Department of Health  
246 N. High Street  
Columbus, OH 43212

800-523-4439  
614-481-3543

Robert Owen, Director  
Radiological Health Program  
1224 Kinnear Road  
Columbus, OH 43212

614-644-2727

Hamilton County Health Department  
138 E. Court Street, Room 707  
Cincinnati, OH 45202

513-632-8451

Butler County Health Department  
Administration Building  
130 High Street  
Hamilton, OH 45011

513-887-3111

Alan Blevens, Chief of Environmental Services  
Patricia Burg, Director of Administration

513-887-3120  
513-887-3098

5.0 TIMETABLE FOR COMMUNITY RELATIONS ACTIVITIES

	<u>Date(s)</u>
1. Establish Administrative Record File at all AR file locations for the records of this removal action	5/07/90
2. Publish the Notice of Availability (NOA) of Administrative Record File in at least one major local newspaper	5/07/90
3. Publish the NOA of EE/CA and associated public comment period in at least one major local newspaper	5/30/90
4. Provide the Waste Pit Area Storm Water Run-off Control EE/CA to all AR file locations	5/30/90
5. Provide a description of the removal action in the RI/FS progress report	6/90
6. Prepare a fact sheet for distribution	6/30/90
7. Provide a 30-day period for public comment on the EE/CA	5/30/90-6/29/90
8. Conduct an EE/CA workshop	6/06/90
9. Develop responses to significant community concerns	7/2/90-7/23/90
10. Provide the Responsiveness Summary to all AR file locations	7/24/90