PADUCAH GASEOUS DIFFUSION PLANT
SITE SPECIFIC ADVISORY BOARD

padssab@apex.net *www.oro.doe.gov/pgdpssab/*

2000 McCracken Boulevard • Paducah, Kentucky 42001 • (270) 744-9010

Chair
Craig Rhodes

Board Members

Kit Atkinson
Nola Courtney
Mark Donham
Edward Duff
Angela Farmer
Judy Ingram
Vicki Jones
Merryman Kemp
Ronald Lamb
Linda Long
Douglas Raper
Craig Rhodes
Rosa Scott
Jim Smart, Ph.D.
Pat Stephenson
Bill Tanner
Rev. Gregory Waldrop

***Ex Officio* Members**

Carl Froede, Jr.
Environmental Protection Agency

Wayne L. Davis
Fish and Wildlife Resources
(Kentucky)

Tuss Taylor
Division for Waste Management
(Kentucky)

John A. Volpe, Ph.D.
Radiation Control Branch
(Kentucky)

Dale Jackson
Department of Energy

DOE Federal Coordinator

John D. Sheppard

Additional information about contacting board members directly can be obtained from the SSAB web site or by contacting Shirley Speer at (270) 462-2550.

SSAB Meeting Minutes
Paducah Site Specific Advisory Board
November 8, 1999

The November 8, 1999, Site Specific Advisory Board (SSAB) meeting took place at the Information Age Park Resource Center in Paducah at 6:00 p.m.

The following board members were present: Kit Atkinson, Nola Courtney, Mark Donham, Edward Duff, Angela Farmer, David Fuller, Judy Ingram, Vicki Jones, Merryman Kemp, Ronnie Lamb, Linda Long, Doug Raper, Jim Smart, Bill Tanner and Greg Waldrop. The ex officio members present were Dale Jackson, Carl Froede, Tuss Taylor, and Wayne Davis. The United States Department of Energy (DOE) federal coordinator present was John Sheppard. Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Gary Bodenstein, Joseph Carson, Raul Casteneda, Bryan Clayton, Greg Cook, Vic Crawford, Brad Davy, Gordon Dover, William Eckroade, Bruce Gardner, Bob Gresham, Kristi Hanson, Alan Harrington, Norm Jetta, Tim Koeher, Lynn McDaniel, Walter Perry, Al Puckett, Myrna Redfield, Shirley Speer, Dorothy Stare, Larry Starr, Tom Tevey, John Tillson, Mario Vigliani, Corinne Whitehead, Pete Whitehead, and Pat Worthington.

Meeting Opened

Rhodes called the meeting to order. He explained that the minutes of the previous SSAB meeting would be held for approval at the November 18, 1999, meeting. He said that this was a special meeting for the Investigation Team and said the floor was open for discussion.

Donham asked if one of the plumes had possibly reached the river. One of the team members said that looking at historical results they cannot conclude that the plume has not reached the river. Farmer asked if there is any way to estimate a time frame. Jackson said the contaminants are at a low concentration and do not exceed any regulatory limits that DOE is aware of.

Donham asked what DOE's plan is for dealing with groundwater contamination source areas. Jackson said that is what DOE is prioritizing. He said he thinks that cleaning up sources will be a high priority. Farmer asked again what is the time frame. Sheppard said that September 2001 was the target date for a Record of Decision on the Groundwater Operable Unit.

Fuller asked how money out of Oak Ridge can be prioritized. He said Paducah has Drum Mountain and contamination going to the river and twice as much money is being spent in Oak Ridge on a single "non-risk" project as is being spent on all projects in Paducah. He asked who is going to take a look at this and decide that Paducah gets more money for higher risk. Jackson said that he would personally see that question is answered. Rhodes asked if there is a possibility that the plume can go under the river. Jackson said that someone was coming to the second half of the meeting to address this question.

Tanner questioned whether the present management situation was going to work to get the 14 items that the EH Team report had identified corrected. The team responded, saying that the work could be done with the current M&I contract setup. Jackson said that the team's Recommendation No. 13 addressed this, that he plans to provide oversight, and that Bechtel Jacobs Company will be held accountable and will follow the corrective actions outlined.

Donham said that the 2006 cleanup target date mentioned in DOE documents does not include money for all that is being talked about. He asked if the team was concerned that enough money is not going to be here to do all that is needed. He was told that is a concern and that Congress will be asked for additional funding. Jackson commented that money from recycling materials in the scrapyards might not be available because of potential contamination in the metal. Donham asked if other sites had to rely on recycling for part of their cleanup budget or if this is unique to Paducah. EH team members said the situation is not unique to Paducah. Jackson said DOE is trying to secure extra funding and many of the projects are funding dependant.

Rhodes introduced Joe Carson, a DOE safety engineer from Tennessee, who made a presentation in rebuttal of the EH team findings. He said he had doubts about the validity of the findings and suggested a third party might be hired for a study. He said he had found a lot of things wrong with the EH team report, and said until DOE is held accountable there is going to continue to be a national scandal. He said workers are afraid to call attention to safety problems and that workers will report problems only if they think it is safe for them to do so. He said fear of reprisal keeps employees at DOE facilities from pointing out trouble areas. He criticized the team for not addressing the issue of fear of

worker reprisal in Paducah, which was listed as one of the team's concerns going into its investigation.

David Stadler, the team's senior manager, defended the team's integrity and professionalism. Pat Worthington, team lead, said the team did not address the concern over reprisals because they found no one in Paducah who feared reprisal. She said the team did have that concern coming in, but found nothing to warrant it. She disagreed with Carson's contention that the report was flawed because the team did not address that issue.

The team was asked how they picked the people for the interviews. The team explained they advertised in several newspapers, asking employees and former employees to come forward, and also talked with union members and others. Carson asked if the team thought if workers were concerned if they would come for an interview. Al Puckett, a former plant worker, asked why no one had contacted him. He was told that because he retired before 1990, the information he wants to share did not apply to the first phase of the investigation. He was asked to provide the team with his name and phone number so they could contact him for the second phase of the investigation, which focuses on issues prior to 1990. John Tillson, a former employee, suggested the team use retiree pension mailings to reach more former workers for the second phase of the investigation. The team said it would look at that suggestion.

Rhodes suggested moving on to the corrective action plan. Paul Clay, Bechtel Jacobs Company's deputy general manager, said the company would be issuing monthly status reports regarding implementation of the EH team report. He explained a handout regarding corrective actions. Jackson reviewed the concerns an SSAB subcommittee had discussed with him earlier. Jackson went over the list and said it was his job to take the board's suggestions back to DOE.

Ingram said she is concerned that DOE is going to try to "quick fix" and in five years we will be back where we started. Jackson said one of the EH Team's corrective actions ensures that DOE will keep progress moving. Ingram said there are still a lot of unknowns.

Donham asked if it is true that Drum Mountain has transuranics in it and if we are shipping this off to other sites, are we going to tell people what we are sending. Sheppard said material would be characterized before it is shipped. Kemp asked if each piece would be characterized. She was told a specific plan for characterizing the scrap has not been developed. EH Team members said the metal would be characterized and that any material characterized as transuranic waste would be sent only to sites with Waste Acceptance Criteria that allows the receipt of transuranic material. Donham asked what was decided about Drum Mountain and if we are going to do an Environmental Impact Statement on this. A DOE official stated that there was no plan to do an EIS. Jackson said DOE would prioritize items then decide on strategies.

Fuller questioned why DMSA criticality was rated low by the subcommittee and that he had a problem with that. Jackson said it is being characterized and is a top priority.

Bryan Clayton of Bechtel Jacobs Company made a presentation on groundwater issues and said more information would be provided at the Nov. 18, 1999 meeting of the board. Waldrop referred board members to the Groundwater Operable Unit Scoping Document on file in the board office for more details. There was discussion about testing wells in Illinois and Jon Maybrair said Kentucky had twice requested samples of well water from Metropolis and were refused. Jackson asked that Clayton take this as an action item and find out about testing wells in Illinois.

Lamb asked if there were classified materials around the site of an October drilling incident. Clayton said to his knowledge there are no classified materials involved in that incident. Lamb said he thought there was some new information regarding classified materials. Dover said the two incident and the designation of an area as a classified burial yard were not related. Jackson again stated that there would be more information and illustrations of this at the November 18, 1999, SSAB meeting.

Donham said members might want to read a document about neptunium experience at the PGDP and inquired why the board had not received it and two other documents he had asked they be given. He was told that the documents were in the meeting packet for the evening. Donham asked if DOE was considering fencing the West Kentucky Wildlife Management Area. Jackson said fencing is not viable and is not considered a good solution. It was looked at but not recommended, he said. Wayne Davis of the WKMA said that talk about fencing the area was news to them. He said they had been told for years that there was not enough contamination to hurt anyone unless they ate all the concrete and now they heard it might be fenced off. Jackson said DOE was trying to work with everyone and find the best solutions. Fencing was looked at as one of the possible solutions, Jackson said.

WKWMA workers asked about the possible effect of animals in transporting contaminants outside the immediate area. They were told that it would be addressed as part of the Surface Water Operable Unit. In response to another question, Jackson said DOE would make sure that warning signs are checked regularly to ensure they remain legible.

Rhodes thanked the team for attending and the meeting was adjourned.

PLEASE SIGN IN

Paducah Gaseous Diffusion Plant
Site Specific Advisory Board

Name	Affiliation
Craig Rhodes	SSAB
Linda Long	SSAB
Al Puckett	ANA
Pete Whitehead	CHC
Corinne Whitehead	CHC
Alan L Harrington	VSSP
Pat Worthington	DOE
Fred Davy	DOE
Mario Vigliani	DOE
William Eckroade	DOE-EH
Vic Crawford	DOE-EH
Vicki Jones	SSAB
Tom Terry	KDA
Dorothy Starr	
Larry Starr	
Norman Winetta	Vortec Corp.
Gordon Dover	BJC
Kat Atkins	SSAB
GREG COOK	BJC
Bob Gresham	
Wayne Davis	KDFWR
John Keeler	KDFWR
Jim Cox	USEC
[illegible]	[illegible]

November 8, 1999

PLEASE SIGN IN

Paducah Gaseous Diffusion Plant
Site Specific Advisory Board

Name	Affiliation
Kristi Hanson	
Angela Fowler	SSAB
Judy [illegible]	SSAB
[illegible]	
Mark Donham	SSAB
Walter Perry	DOE
JIM SMART	SSAB
Bill Tanner	SSAB
[illegible] McDaniel	
Ronald [illegible]	SSAB
Joseph Carson	
John Toulson	
Carl R. Froede	EPA
[illegible]	KDEP
Myrna Espinosa Redfield	DOE
Nola Courtney	SSAB
José R. Castañeda	DOE-PADUCAH
JOHN D. SHEPPARD	DOE/PAD
J. Dale Jackson	DOE/PAD

November 8, 1999

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Tentative agenda for November 18, 1999, meeting:

- Call to order
- Minutes from September, October
- Special Presentations
  Groundwater presentation
  Air presentation
- Public Comments and Questions
- Update on DOE EH investigation of environmental, health and safety concerns
- Program Status Updates
  EM&EF Projects
  Depleted UF_6
  Scrap Metal
  WAG 3, 8, 28/Data Gaps update
- Sitewide Cumulative Effects
- Programmatic Presentations
  Land Use Control Assurance Plan (LUCAP)
  ITRD
  WAG 6—Gregory Waldrop
- Information Handouts
- SSAB Subcommittee Reports
  Community Relations—Judy Ingram
  Consultant—Bill Tanner
  Membership—Nola Courtney
  Chairs Meeting Report—Vicki Jones
- SSAB Recommendations Status
- Administrative Issues for the Board
  Review of the SSAB Draft Workplan
  Agenda for December meeting

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Draft SSAB Meeting Minutes
Paducah Site Specific Advisory Board
November 18, 1999

The November 18, 1999, Paducah Site specific Board (SSAB) met at 6:00 p.m. at the Junior High School Auditorium in Metropolis, Illinois.

The following board members were present: Nola Courtney, Mark Donham, Edward Duff, Angela Farmer, Vicki Jones, Merryman Kemp, Linda Long, Doug Raper, Craig Rhodes, and Bill Tanner. *Ex Officio* members present were Carl Froede, Environmental Protection Agency (EPA), and Dale Jackson, Department of Energy (DOE). The facilitator present was Steve Kay. The DOE federal coordinator present was John D. Sheppard. Linda Martin was present of the Division of Waste Management. Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Virgil Bremer, Beth Clanahan, Kenneth Davis, Gordon Dover, Kristi Hansen, John Henry, Cole Hutchings, Norman Jetta, John Tillson, Ruth Johnson, , Jim Moldin, Allan Stephen, Debbie Stephen, Phillip Trampe, Randy Followell, Eric Morti, John Tillson, Corinne Whitehead, and Ernest Whitehead. Others present not signed in.

Call to Order

Rhodes called the meeting to order at 6 p.m. and announced two presentations would precede the business meeting.

Groundwater and Air Presentations

Eric Morti and Bryan Clayton of Bechtel Jacobs Company made a presentation about groundwater contamination from the PGDP and its potential for affecting southern Illinois residents. Danny Guminski of Bechtel Jacobs Company made a presentation on DOE air emissions. Steve Shell of the United States Enrichment Corporation made a presentation on the operating plant's air emissions. *(Copies of the presentations are on file in the board's office.)*

Minutes

Minutes for meetings through the Nov. 8 special meeting were approved with the following changes: 1. Donham and Sheppard submitted written modifications to previous minutes. 2. Donham was to approve changes to his comments from July prior to finalizing those minutes. 3. Raper noted that Kay's name was included as having attended the Nov. 8 meeting but he was not present.

Public Comments

Randy Followell said that his company had made a presentation of its products to DOE, but had not received a chance to bid on work because it did not meet technical specifications. He said he asked to see DOE and/or Bechtel Jacobs policies covering such work, but had not received a copy. Donham said that if there was a policy the man should be able to see it. Jackson and Gordon Dover of Bechtel Jacobs said they would get a copy of the policy to the company.

Corinne Whitehead was granted permission by the board to give a 5-minute presentation regarding the possibility of earthquakes in the area. She presented maps from the U.S. Geological Survey and offered a handout of presentation to those interested.

EH Team/Corrective Action Plan Update

Jackson reviewed meetings he had had with SSAB subcommittee members and federal and state regulators. He said many concerns expressed by the board were the same as those expressed by DOE and regulators. A recommended corrective action plan is being prepared and will be sent to DOE Headquarters. Jackson reviewed the issues the SSAB recommended for inclusion: Drum Mountain removal, removal hot spots outside the fence, final D&D on C-410 and C-340, action on burial grounds, and increased public

information. Donham asked if any of these changes would require an amendment to the Federal Facility Agreement. Froede said schedule changes were being dealt with, but the FFA will not have to be rewritten. Donham said the public has a right to know what alternatives are being considered. Froede said that SSAB comments were presented at the Senior Management meeting by Jackson and Froede reiterated that the board will have a say. Sheppard commented that the board is getting more discussion at an earlier stage than in the past. He said that progress is being made in getting earlier input from the board.

Project Updates

Gordon Dover of Bechtel Jacobs Company said that the Scrap Metal Engineering Evaluation/Cost Analysis (EE/CA) is being revised and does not include recycling. Donham asked if that means the project will cost about $40 million more than projected when recycling was counted in. Jackson said maybe. He said DOE would attempt to recycle what metals it could, but was not counting on recouping any money under the new EA/CA. What is recycled will depend on characterization of the materials. Donham asked if this change would affect lifecycle baseline projections. Dover responded that the lifecycle baseline is redone annually and any changes required would be noted.

Donham asked for more information about the Drum Mountain removal proposal, and if it was to be moved by rail as the Courier-Journal reported. Dover said the drums would be removed, not recycled, and would be shipped by rail in containers. Donham asked about characterization of the drums and was assured they would be characterized before shipment. Linda Martin of the Kentucky Natural Resources and Environmental Protection Cabinet said soils under Drum Mountain would be checked to a depth of one foot and that the state had concerns about SWMUs 7 & 30. Froede said EPA also had concerns and did not want run off from the site and that the entire removal project should be completed by about the end of FY2000 and the soils underneath Drum Mountain addressed in the following year. Donham asked if the board could get more information on Envirocare, specifically about troubles at the site. Sheppard said that information would be provided.

WAG 3, 8, 28 Data Gaps

Eric Morti of Bechtel Jacobs Company said results of monitoring will not be classified.

LUCAP

Froede explained how Land Use Control Assurance Plans work. He said LUCAPs work in concert with Land Use Control Implementation Plans to ensure land is never used for purposes other than those envisioned by the landowner. He said EPA has had success with LUCAPs in recent years. He said land controls are reviewed every five years. Sheppard said a LUCAP is part of a Record of Decision. Donham asked if cleanup standards determined what was involved in a LUCAP. He was told that future uses of land do determine cleanup standards and that DOE has already had numerous discussions with citizens about the future use of the PGDP site.

ITRD

Sheppard said the next meeting is December 16-17, 1999, at the Drury Inn in Paducah.

WAG 6

No comment.

Community Relations Subcommittee

Rhodes asked for the board's permission to approach Comcast Cable about getting the Public Access Channel to broadcast the board's meetings. The board granted this permission and Rhodes volunteered to get more details. Kemp complemented the ads that were placed for the meeting.

Consultant Subcommittee

Tanner said that this has been put on hold, but asked to leave it on the agenda for consideration.

Membership Committee

Courtney reported that the board had two applications to consider, but that the board should go into executive session for discussion.

Chairs Meeting Report

Jones talked about the recent SSAB Chairs Meetings in Washington and what some of the other boards were doing.

Status of Board Recommendations

Sheppard said DOE still has not made decisions about two projects where the board has made recommendations to the agency. He said DOE will respond to the recommendations on Vortec and metal recycling at a later date.

Workplan

Kay said this needed to be a priority at the next meeting and brought up to date.

Agenda for December meeting

Members suggested the following items be given priority for the December meeting:

WAG 6
Workplan
Presentation on Five-Year Groundwater Operable Unit Review
Lasagna update
Presentation on Land Use Control Plan
Corrective Action Plan
Drum Mountain update

Other Administrative Issues

Rhodes asked for a more detailed accounting in the future so members could have more information about how the board's budget was being spent. Tanner suggested that instead of Bechtel Jacobs preparing and updating the board's budget that the board reconstitute its finance committee and take care of its own budgeting. Jackson said he would get more detailed financial information for members by the December meeting.

The board decided to have the regular SSAB meeting December 16, 1999.

Meeting adjourned at 9:17 p.m.

U.S. Department of Energy

Air Emissions from Operations at the Paducah Gaseous Diffusion Plant

Presented by Danny Guminski, Bechtel Jacobs Company LLC

Mr. Guminski is the Environmental Compliance Manager for Bechtel Jacobs Company in Paducah.

Regulatory Framework

The Kentucky Division for Air Quality (KDAQ) is the regulatory authority for air emissions relating to Paducah DOE activities.

It is responsible for issuing appropriate permits and ensuring compliance with clean air standards.

AIR

Agreement in Principle

Through the Agreement in Principle, the state of Kentucky operates ambient air monitoring stations around the plant to ensure protection of human health.

Paducah DOE Emission Sources

■ Point Sources

- — Northwest Plume Treatment Facility
- — Northeast Plume Treatment Facility
- — Cylinder Painting

■ Fugitive Emissions

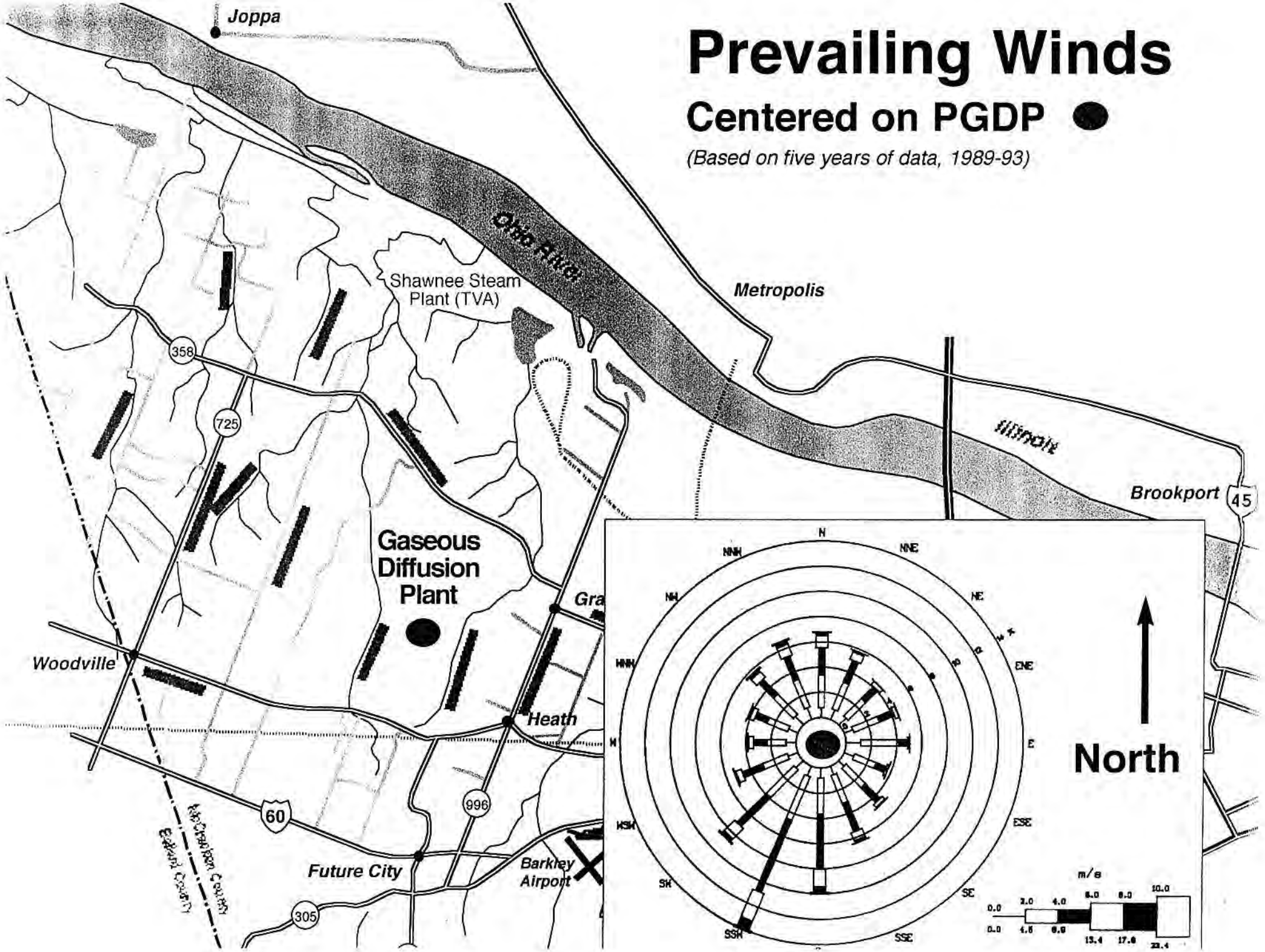
■ Potential Additional Sources

- — Drum Mountain Removal
- — C-752-A Waste Sampling/Treatment Facility
- — Vortec

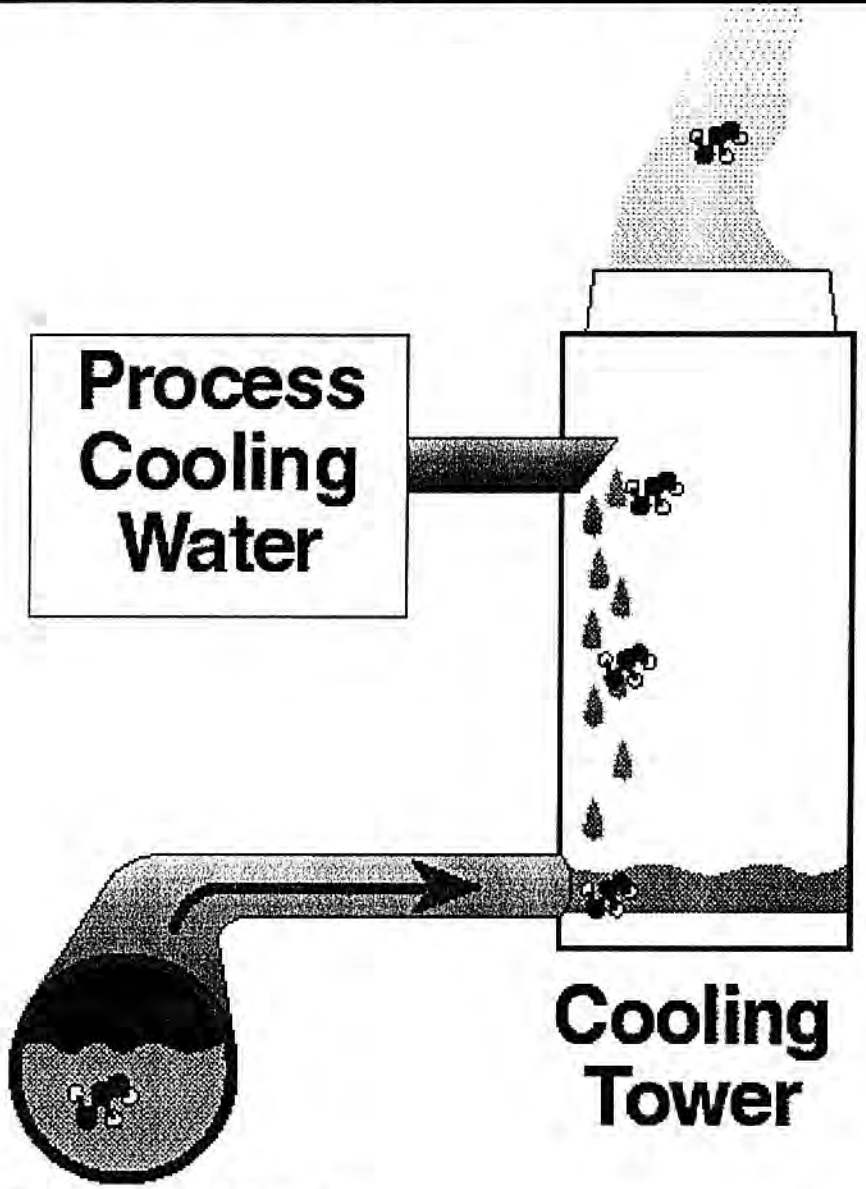
Prevailing Winds

Centered on PGDP

(Based on five years of data, 1989-93)

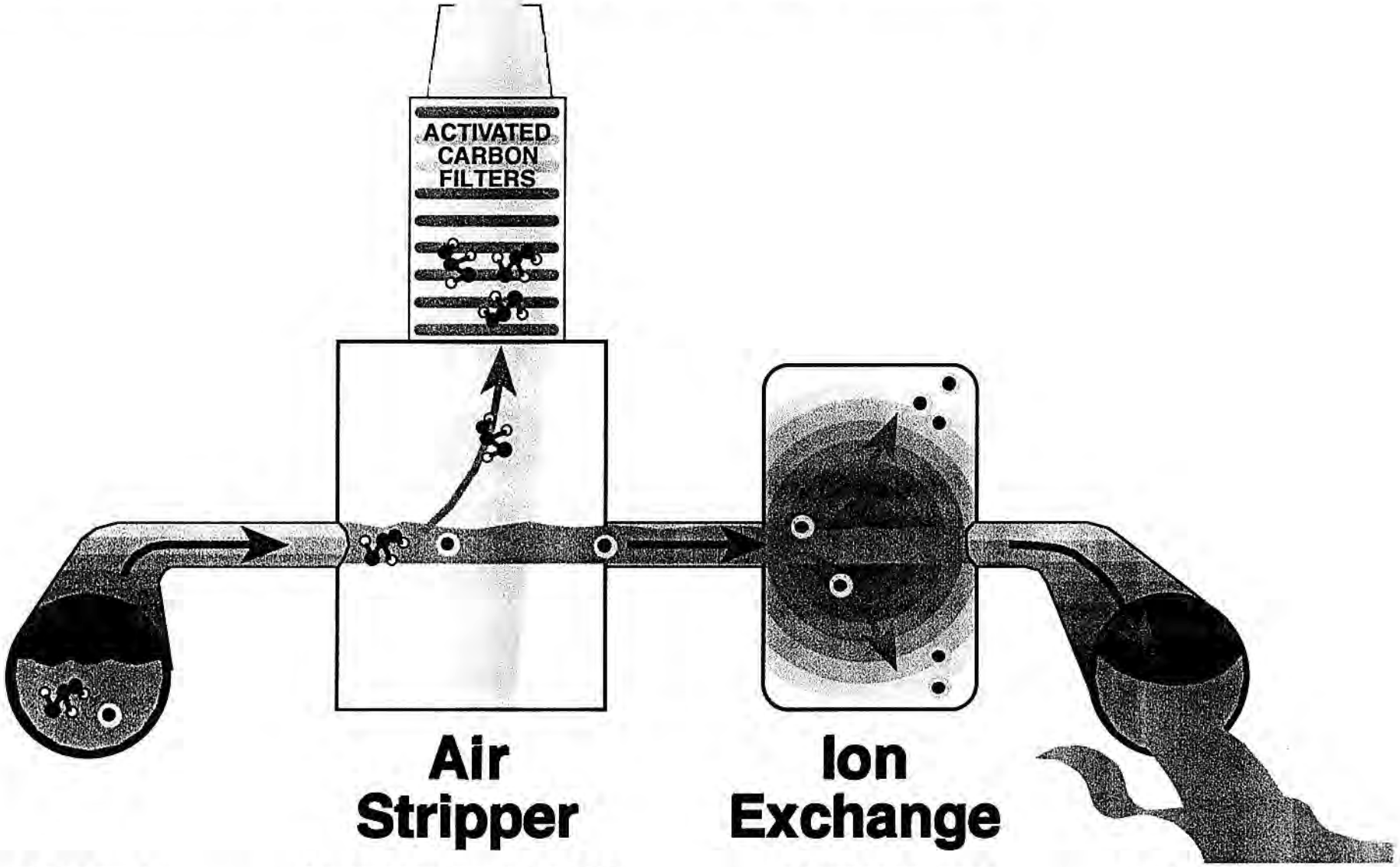


Northeast Pump and Treat Facility



Air stripped groundwater is added to the plant's cooling tower system.

Northwest Pump and Treat Facility



Air Stripper

Ion Exchange

Groundwater containing some TCE and TC-99 is brought into the system.

Air Stripper draws the TCE from the water and traps it in activated carbon filters. The air — its TCE removed — goes into the atmosphere.

Ion Exchanger traps TC-99 and removes it from the groundwater.

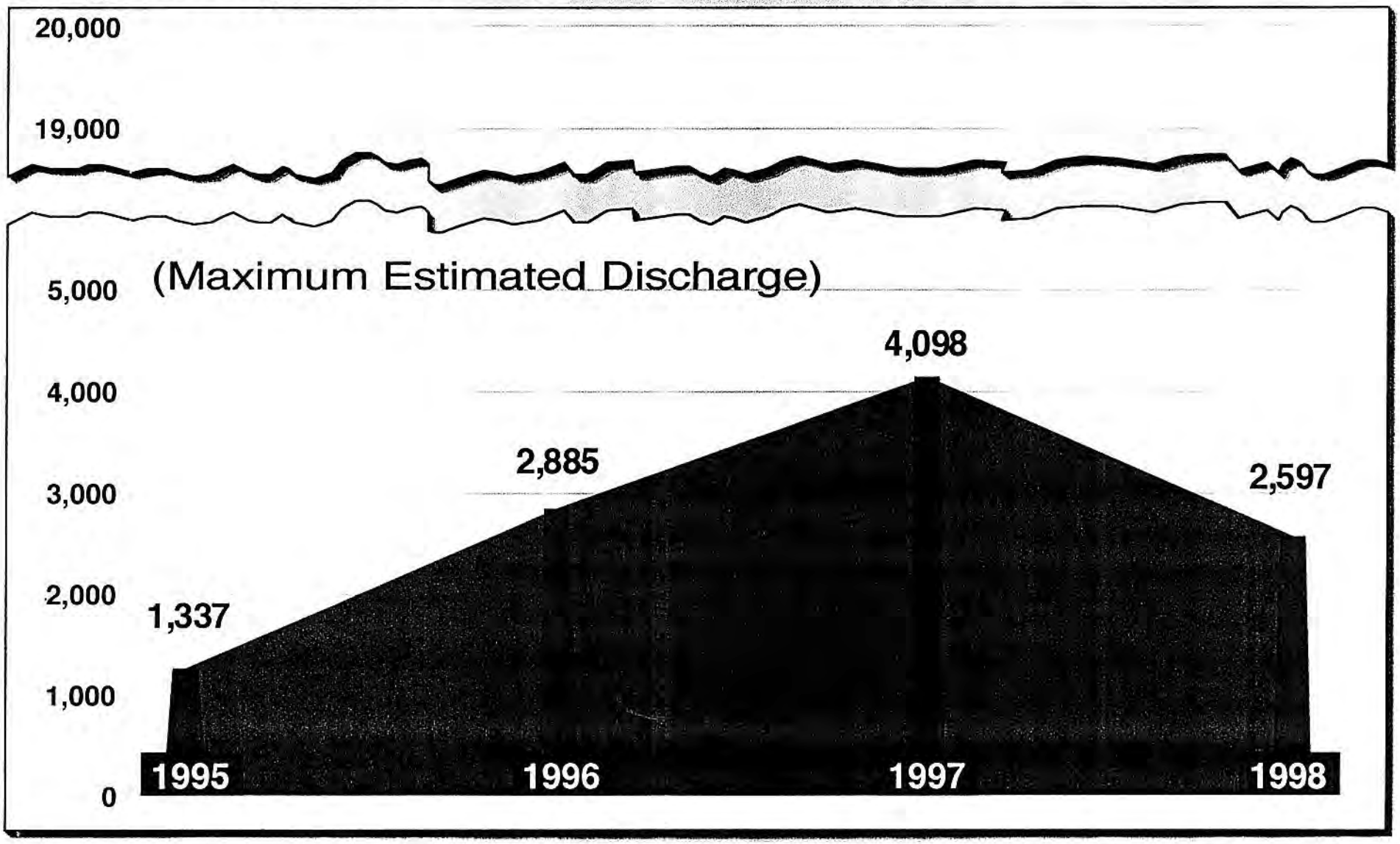
Purified groundwater is discharged into Bayou Creek.

AIR

Air Emissions for DOE Operations

Hazardous Air Pollutants (TCE)

Regulatory Limit: 20,000 pounds / year

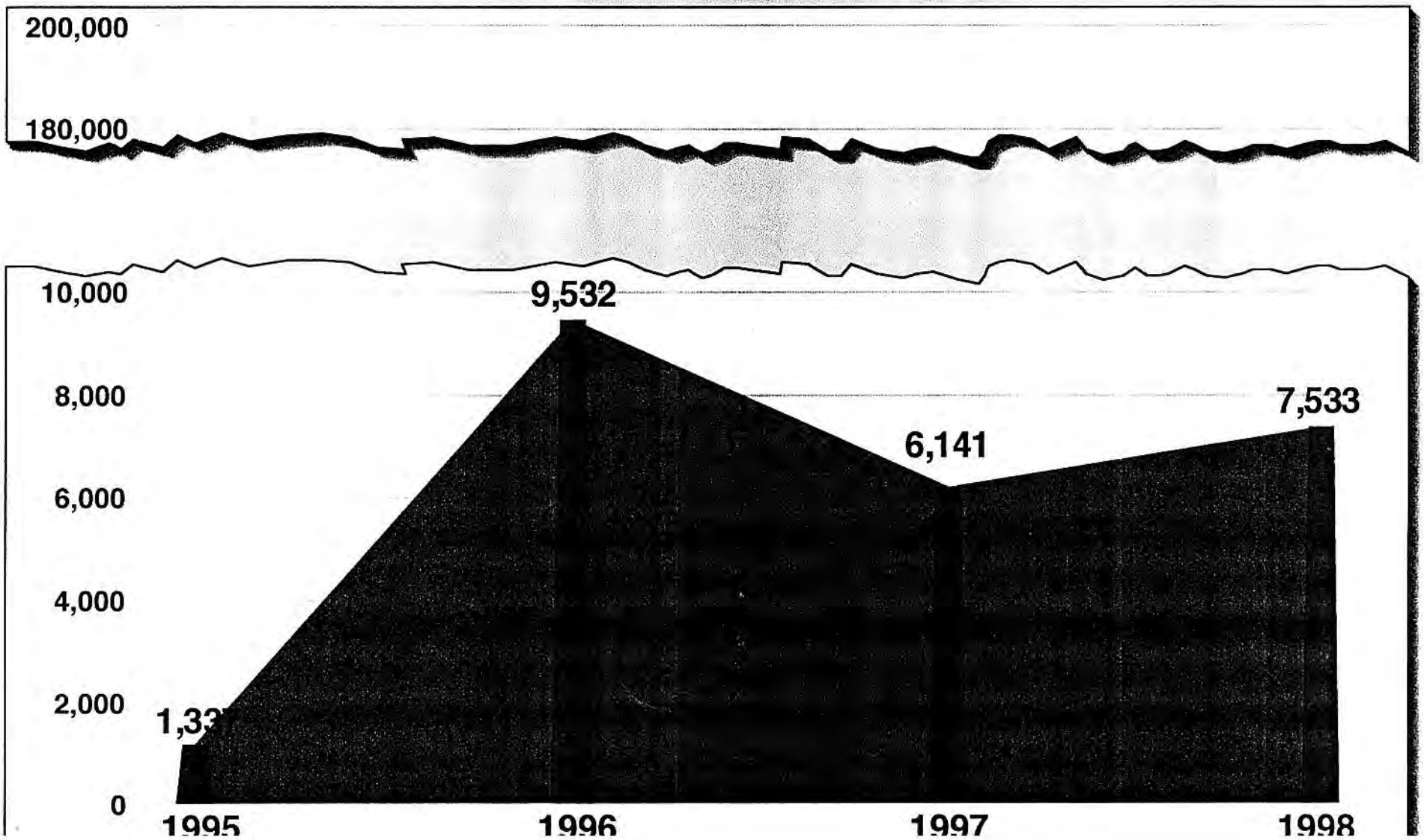


AIR

Air Emissions for DOE Operations

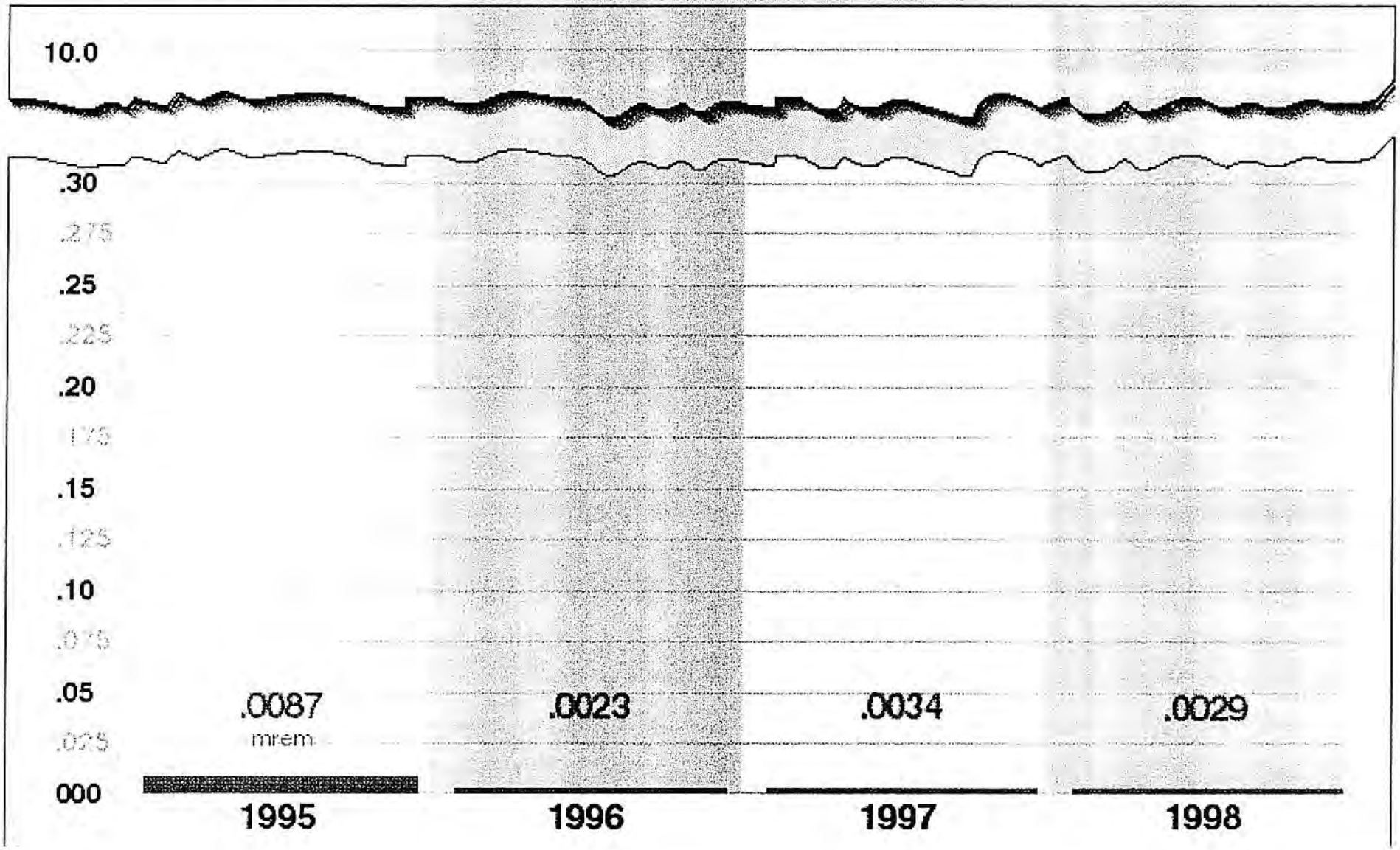
Volatile Organic Compounds

Regulatory Limit: 200,000 pounds / year

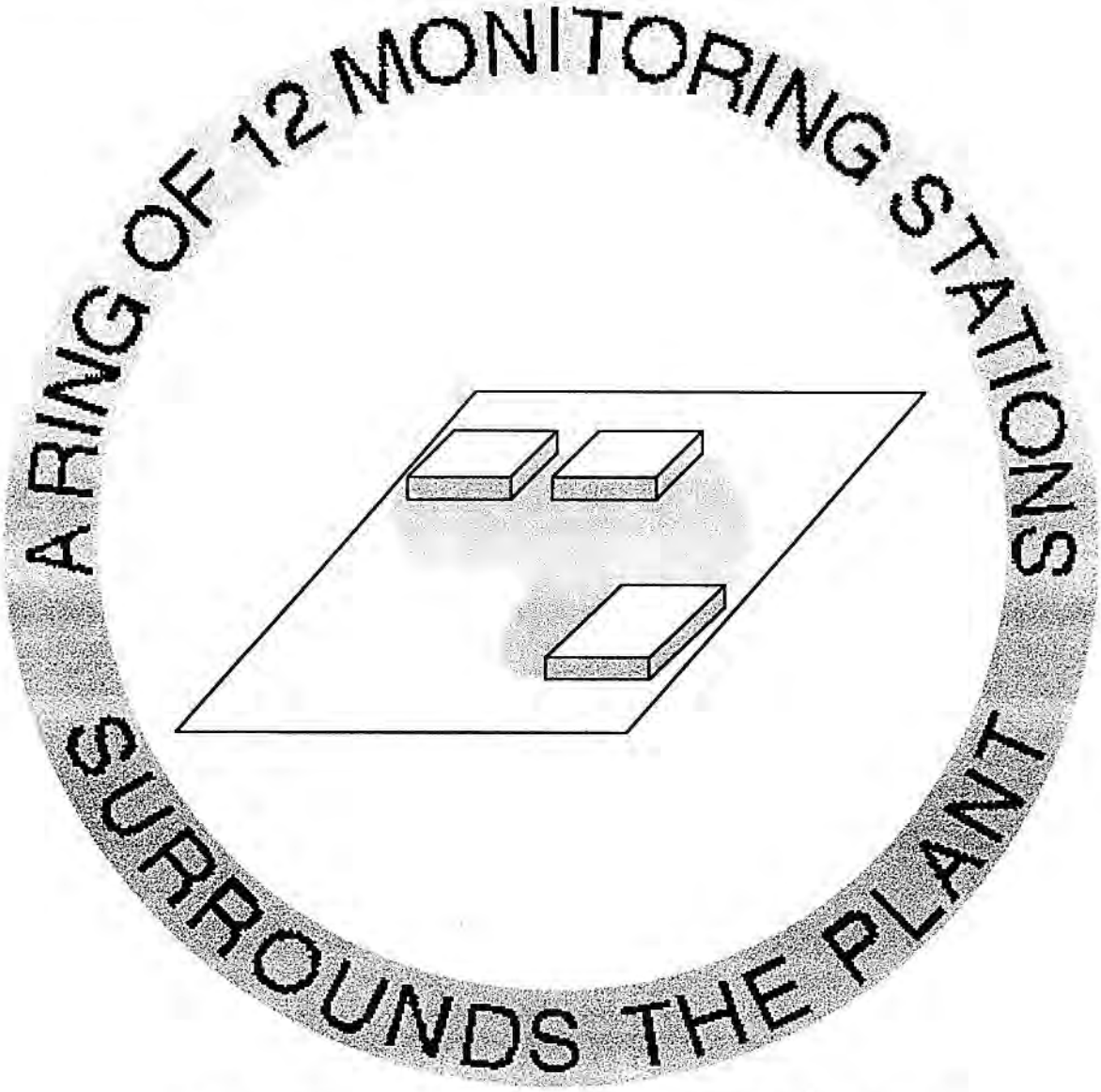


Radioactive Air Emissions

Regulatory Limit: 10 millirem / year



Ambient Air Monitors



Two more monitors are located
several miles from the plant

The State of Kentucky and USEC
Operate the Ambient Air Monitors

Site Specific Advisory Board

Actual Costs to Date *(Including Prior Year)* **thru**
October 1999: $ 26,899

Participant	Prior Year	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY00
Bechtel Jacobs Company LLC	9,142	884												884
BJC Sub. - Roberts & Kay, Inc.	12,911	0												0
BJC Sub. - Design Integration Group	0	3,962												3,962
Total Project	22,053	4,846	0	0	0	0	0	0	0	0	0	0	0.00	4,846

NOTES: *Does not include prior year charges of $48,900 for Jacobs Engineering.*

Budget for FY00: $ 205,373
FY00 CTD: $ 4,846
Remaining Funding: $ 200,527

Bechtel Jacobs Company LLC
Paducah SSAB

18-Nov-99
3:22 PM

Participant	Description	Prior Year	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY00
BJC Engineering Cost Center	No costs in FY 2000	1,598													0
BJC Procurement	Contract work	646	29												29
BJC Project Controls	Project Analyst/Finance Officer Support	0	79												79
SSAB - Misc Expenses	Rents, Sound Recording, Public Notice, etc.	3,402	776												776
Support Activities Distributable	Telecommunications, Computing Support, etc.	3,496	0												0
Total Project		9,142	884	0	0	0	0	0	0	0	0	0	0	0	884

NOTES: *STR duties are in Public Affairs in FY00, so there will be no engineering charges*
No additional charges from Procurement or Project Controls are expected.

Roberts & Kay, Inc.
Paducah SSAB

P-JECO4V

Participant	Type of Service	Prior Year	Actual OCT	Actual NOV	Actual DEC	Actual JAN	Actual FEB	Actual MAR	Actual APR	Actual MAY	Actual JUNE	Actual JULY	Actual AUG	Actual SEPT	TOTAL FY 99
BJC Sub. - Roberts & Kay, Inc. (Payments)	Subcontractor Independent	12,911	0												0
BJC Sub. - Roberts & Kay, Inc. (Accruals)	Facilitator to the SSAB	0	0												0
Total Project		12,911	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTES:

U.S. Department of Energy

Paducah Gaseous Diffusion Plant Groundwater Contamination

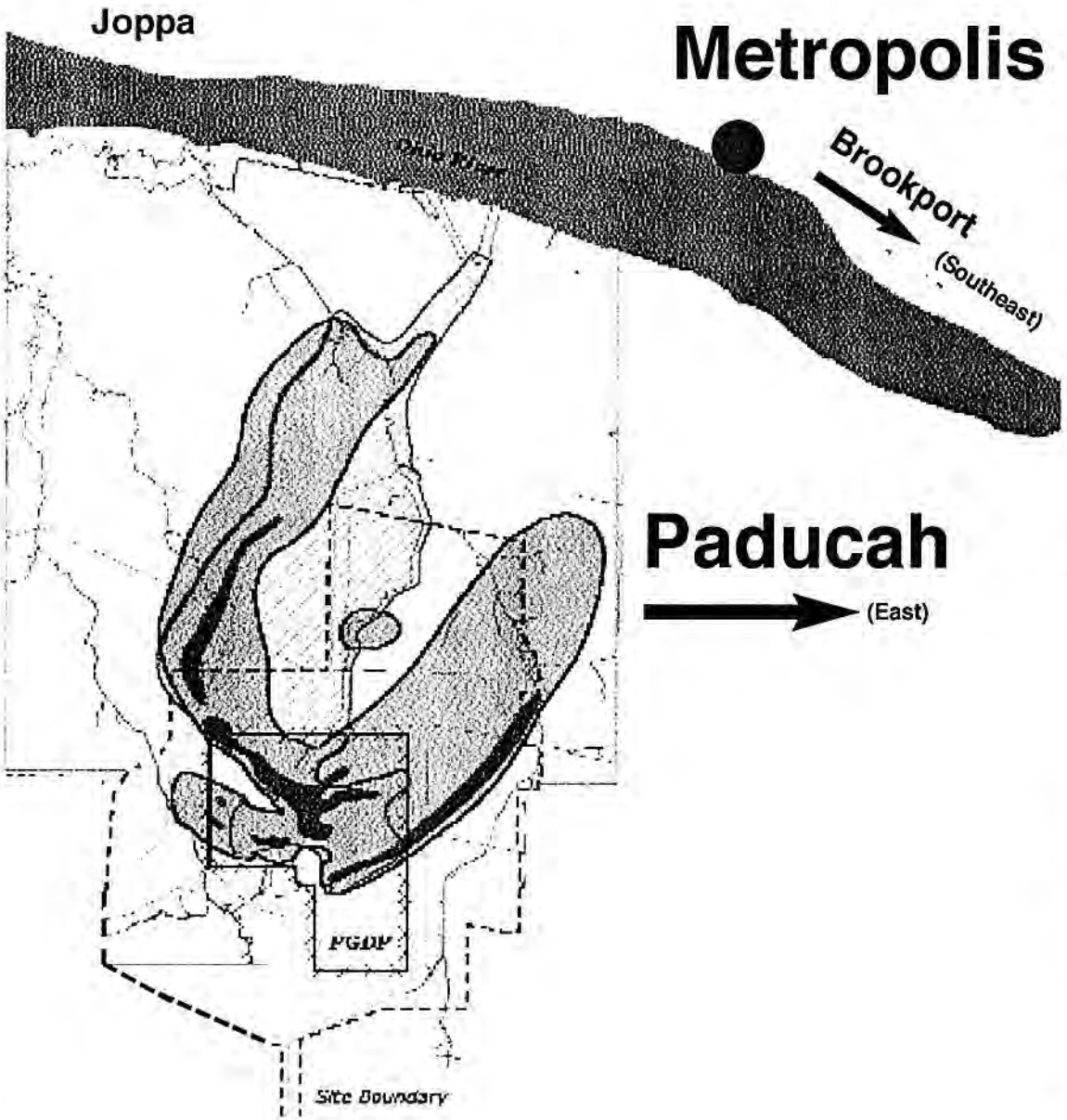
Presented by Eric Morti and Bryan Clayton, Bechtel Jacobs Company LLC

Mr. Morti is a senior geologist for Bechtel Jacobs Company.

Mr. Clayton is task lead for the Groundwater Operable Unit for Bechtel Jacobs Company.

WATER

Regional Plume Map

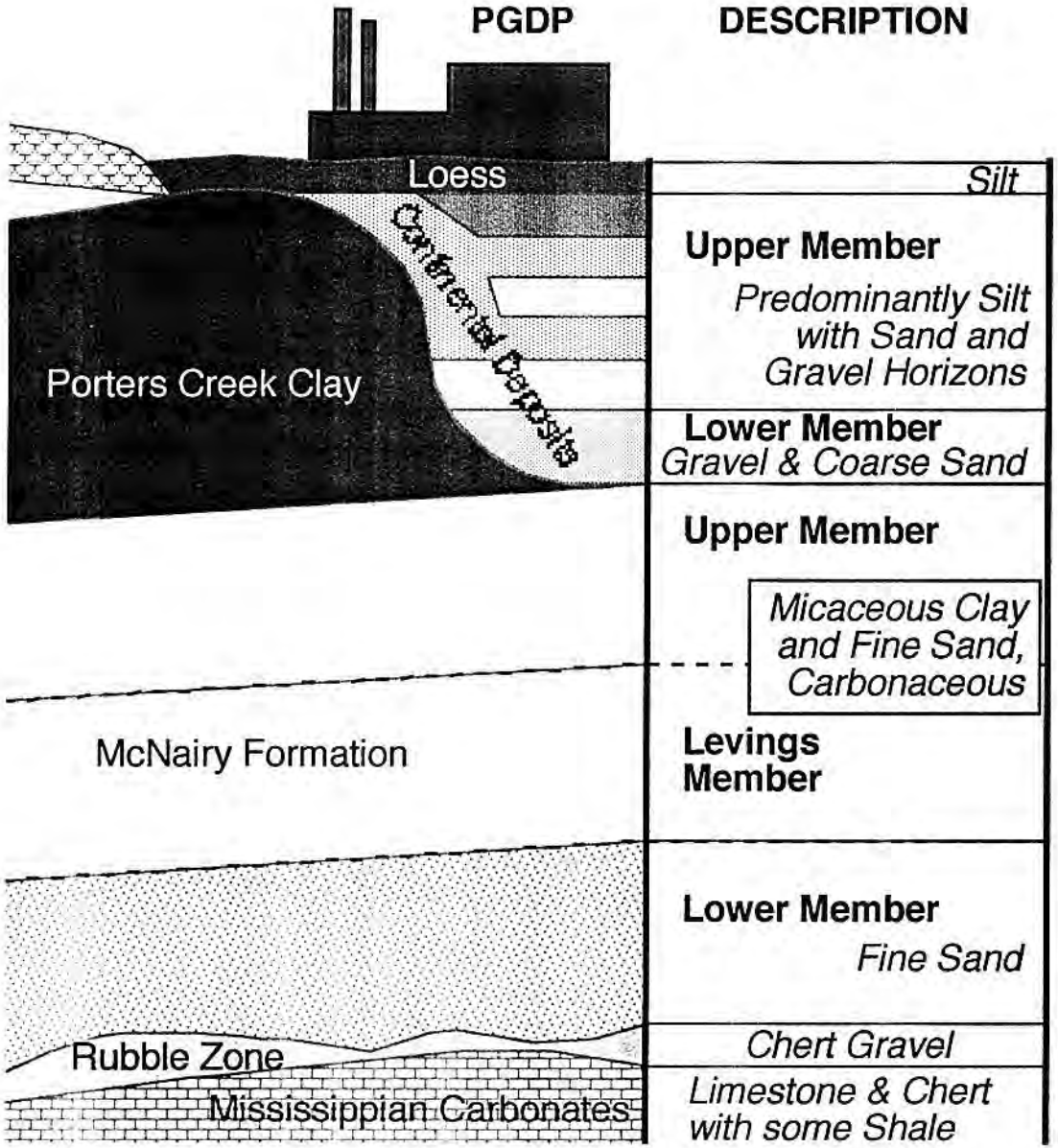


Paducah Gaseous Diffusion Plant Groundwater Plume Flow Direction

Green is zone of low-concentration TCE.
Red is zone of high-concentreation TCE.
Yellow shows Technetium-99 plume.

(Plume location on map is approximate.)

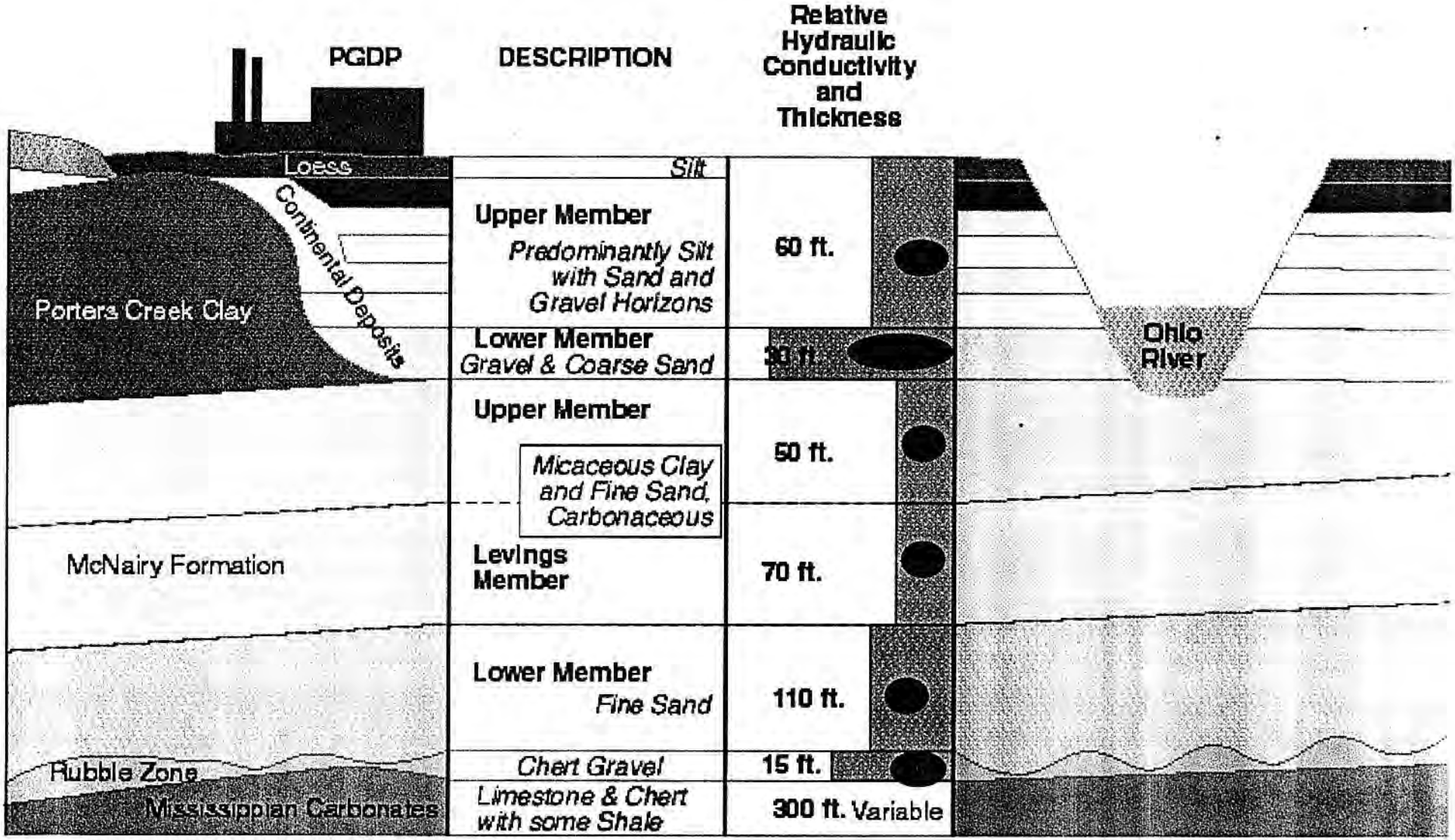
WATER



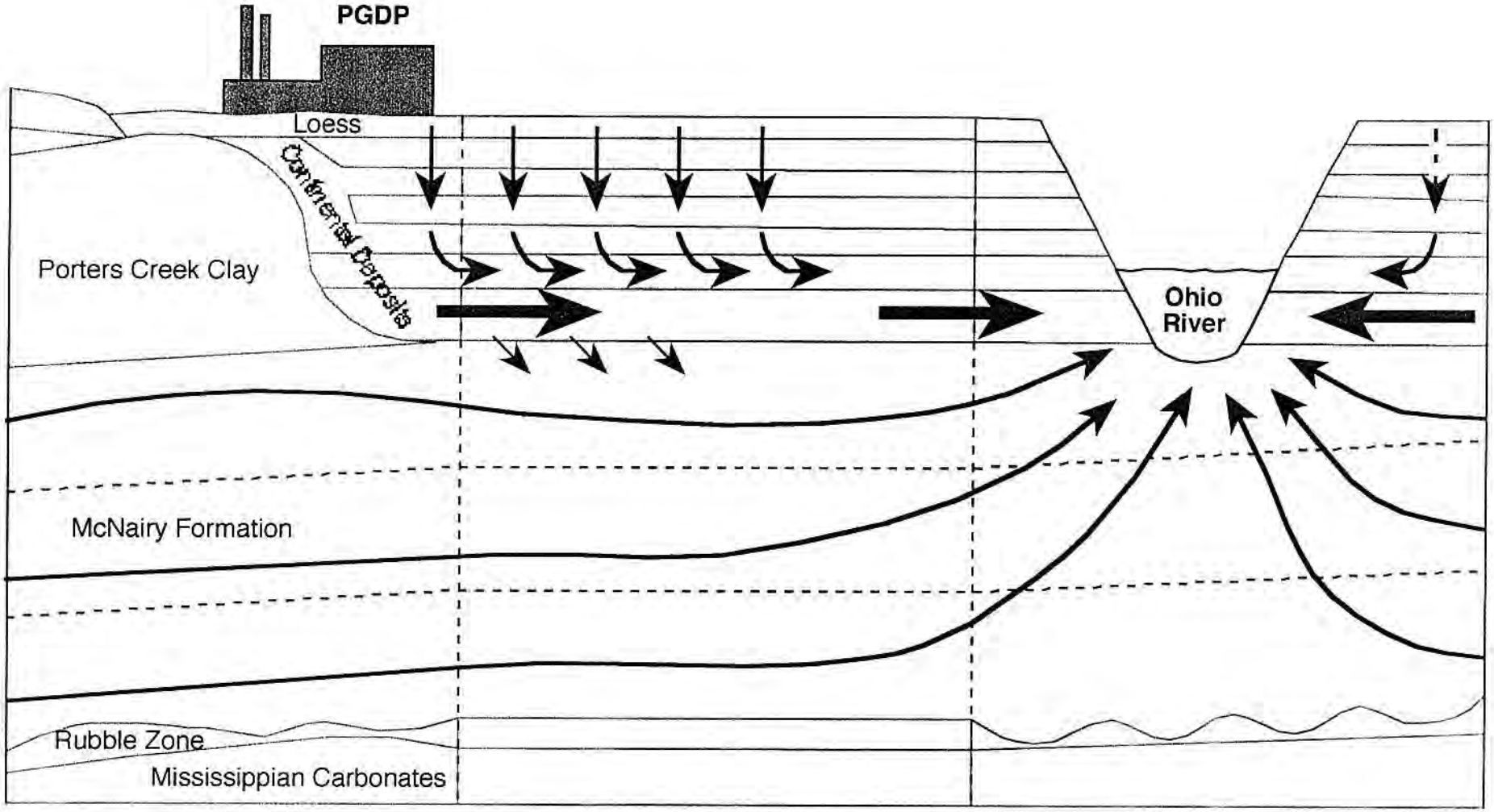
Geological formations under the Paducah Gaseous Diffusion Plant

WATER

Regional Geological Formations



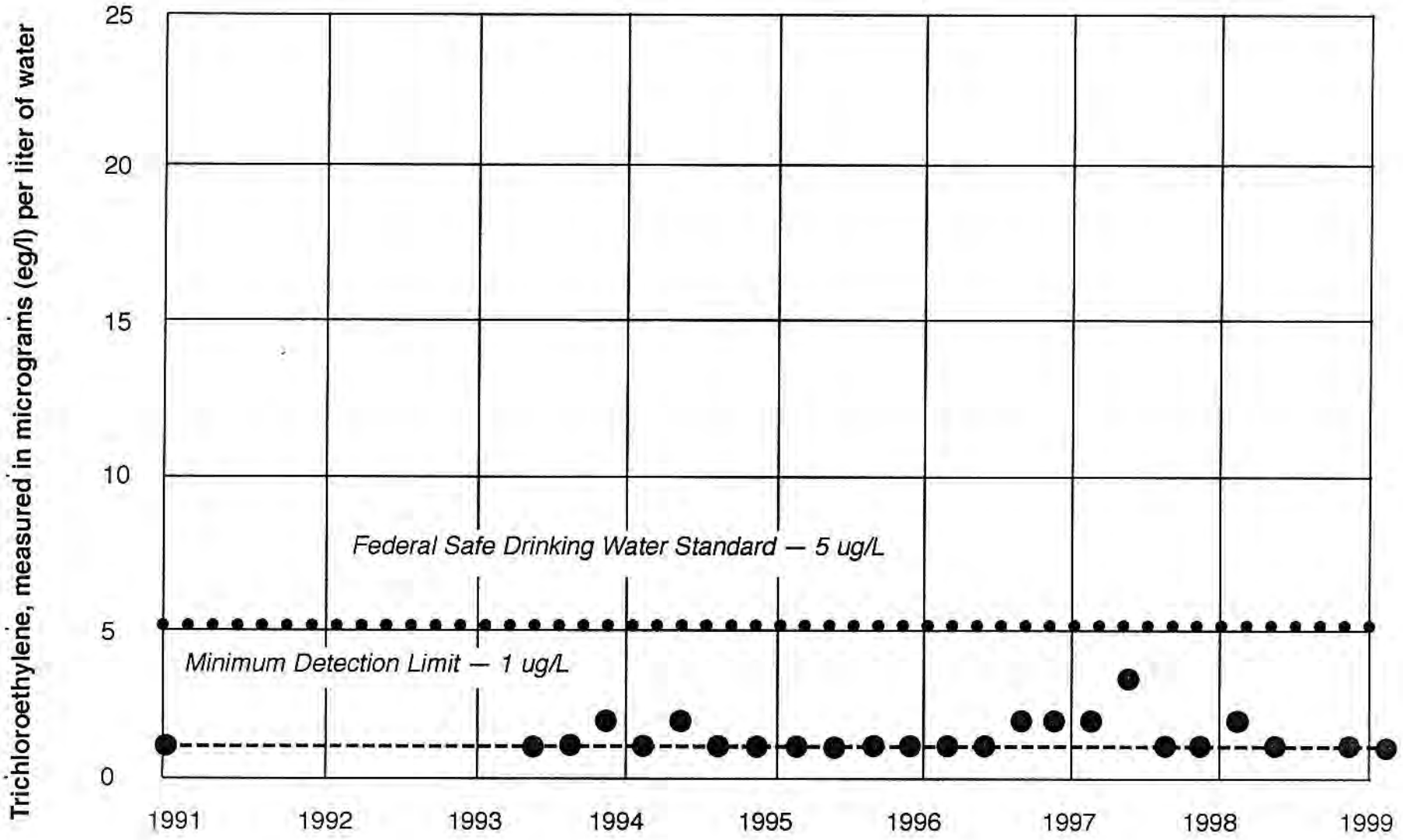
Groundwater Flow Directions



WATER

Monitoring Well 152 — Closest to the Ohio River

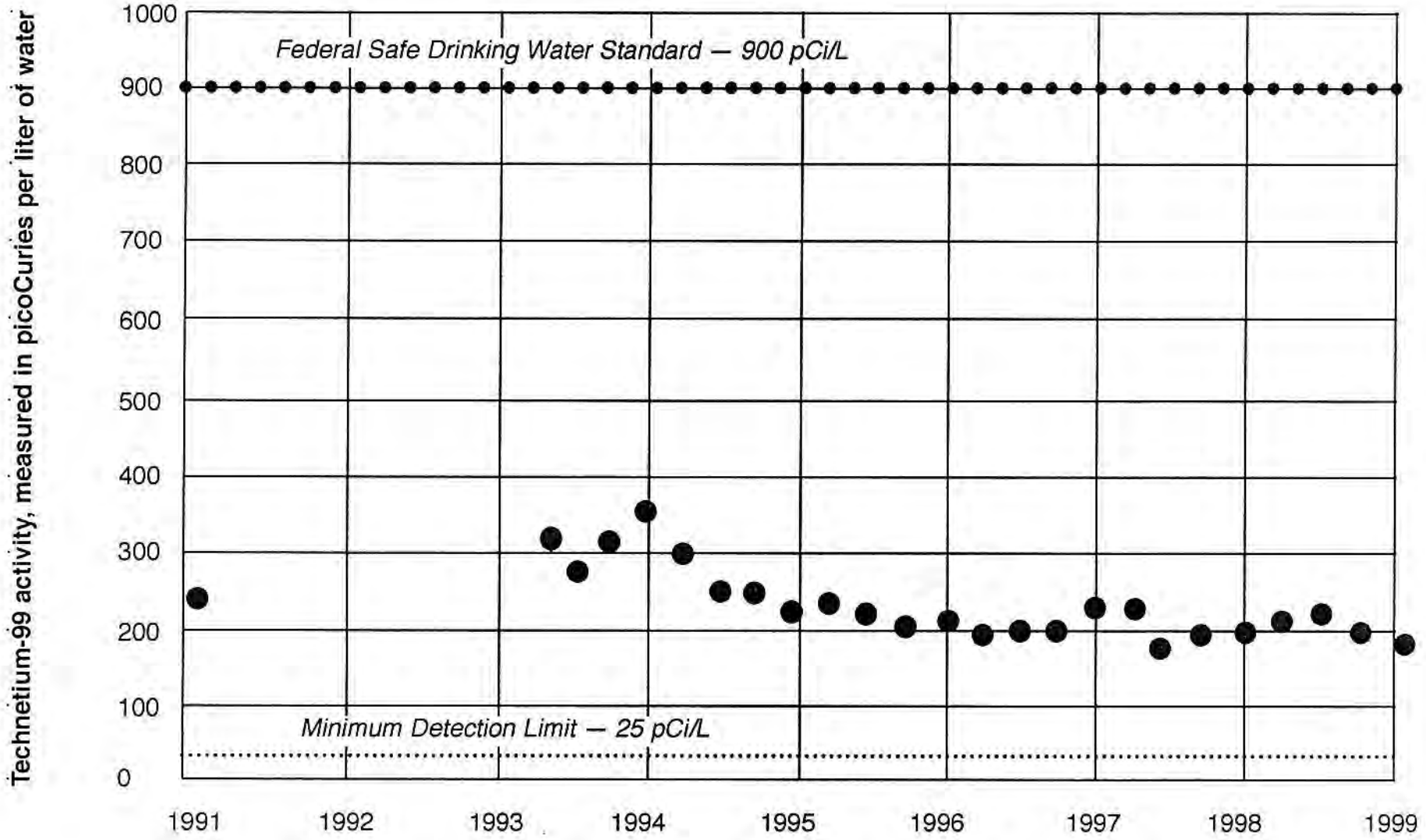
Trichloroethylene (TCE) Levels *(Maximum detected during each year)*



WATER

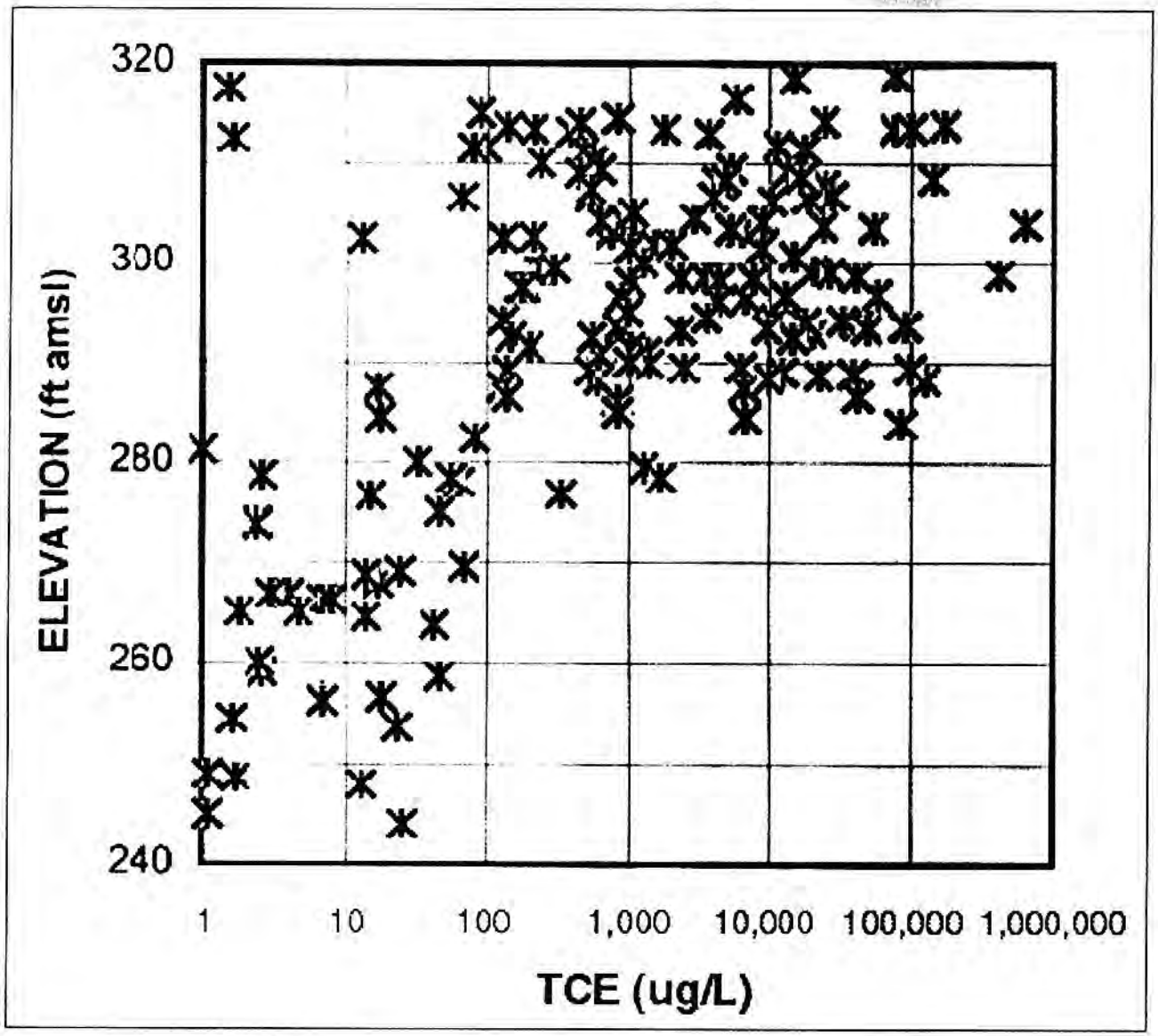
Monitoring Well 152 — Closest to the Ohio River

Technetium-99 Levels



WATER

WAG 6 TCE Concentrations



TCE at Various Depths at WAG 6

The Paducah Sun

November 13, 1999

NCR prepared to assume DOE role

By Joe Walker
Sun Business Editor

The head of the Nuclear Regulatory Commission says the agency is prepared to replace the U.S. Department of Energy as regulator of historically contaminated areas of the Paducah Gaseous Diffusion Plant if Congress authorizes it.

"We have testified before Congress, and we feel we can do external regulation of DOE areas in a cost-efficient and reasonable manner," NRC Commissioner Jeffrey Merrifield said. "We can't do that until Congress changes the law, but we're certainly willing and able to do it."

Merrifield gave his views in an interview after touring the plant Friday with U.S. Sen. Jim Bunning. The commissioner stopped here on a visit to several states to tour NRC-regulated plants.

Merrifield said NRC inspectors stationed at the Paducah plant "expressed frustration" at having authority over worker safety issues in some parts of the plant, but not in others.

NRC regulates production and related areas leased by USEC Inc. from DOE, which owns the plant. DOE self-regulates other areas, including some uranium hexafluoride cylinder yards, environmental cleanup and waste management sites.

DOE has come under heavy criticism in recent months as a result of two federal lawsuits alleging that workers and the public were poisoned by plant contamination. A chief contention is that exposures were from highly radioactive materials, called transuranics, brought into the plant as contaminants in spent reactor fuel. The fuel was reprocessed at Paducah from the early 1950s to the mid-'70s.

Although NRC and DOE say the plant and its surroundings are now safe, DOE has admitted problems in past years. Merrifield said he could not comment on areas of transuranic concern because NRC has no jurisdiction.

"I didn't see anything today, nor did I have any prior information, that would leave me lingering doubts about the protection of the workers at that facility moving forward," Merrifield said. "Obviously, there are concerns about legacy issues that don't fall under our purview. Those are questions that I think a lot of people need to have answered."

Areas of the plant operated by USEC are safe, he said, noting that 93 percent of USEC workers received no radiation dose last year. Detected doses were well below the commission's maximum standard, Merrifield said.

"Since we came on board five years ago, the material condition of the plant has certainly improved," he said. "USEC (which assumed operation in 1993) has had a lot to do with that."

Merrifield said USEC has made "significant progress" in establishing and adhering to nuclear safety procedures, which required a culture change from previous years when DOE regulated the whole plant. Although NRC has issued more than 100 violations against USEC since 1993, many of those were relatively minor and suggest progress, he said.

"I think the important thing is trending," Merrifield said. "Those numbers are going down."

The commission is concerned that USEC is investing substantial money to make earthquake improvements at the Paducah plant, but DOE-regulated waste areas are a stumbling block, Merrifield said.

"One of the things slowing them down is DOE legacy materials that continue to be stored there," he said. "Parts of the plant are cordoned off, and it's very difficult to complete actions to improve the plant because of those materials."

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The Paducah Sun

November 13, 1999

Bunning: Cleanup aid won't be lost

By Bill Bartleman
The Paducah Sun

Attention from Congress for cleaning up the Paducah Gaseous Diffusion Plant won't diminish with time, U.S. Sen. Jim Bunning said after visiting the plant Friday.

"Over the next 10 years, we are going to allocate money for cleanup of the Paducah plant as a line item in the budget, rather than having it go through DOE's office in Tennessee and let them decide how the money is going to be used," Bunning said.

"We will see that the money goes for cleanup and not maintenance of the waste. We'll make sure we will actually see results ... which we haven't seen so far."

Bunning promised that the interest in the plant would not be lost when national attention fades.

Bunning said his tour of the plant Friday was more extensive than previous visits.

He went inside buildings that have materials contaminated with highly radioactive material; he saw a scrap yard that includes thousands of tons of old equipment; he saw "drum mountain," which includes thousands of crushed drums that are contaminated with uranium dust; and he drove through a storage yard where more than 38,000 cylinders of uranium waste is stored.

"It was a mess," he said several times in describing what he saw.

Bunning said he is curious as to how DOE has spent $400 million at the plant since 1988 and can still have so much waste. He said that is one of several reasons he's asked the General Accounting Office to conduct a special investigation of the activities and expenses.

The GAO is the investigative arm of Congress.

While Bunning says he is "fairly confident" that the United States Enrichment Corp. is now operating the plant safely, he doesn't want to take anything for granted because of concerns over past practices.

The Nuclear Regulatory Commission since 1997 has regulated the plant.

"NRC is tough to deal with, and they have given a sound report on the current safety and soundness of the plant," Bunning said. "But I am not confident enough yet in NRC ... because this is my first dealing with them. That is why I am seeking another source and an independent review by GAO."

Bunning said experiences with DOE make him skeptical. Until NRC took over regulating the plant, DOE was both the owner and regulator, "which isn't a very good way of doing things. It is the fox

guarding the hen house."

"The people of this area have trusted the federal government and DOE over the years because of the amount of employment at the plant and the dollar value of the payroll," Bunning said.

"But DOE, in my opinion, did not have a clue as to what was going on regarding safety. They just produced the material (enriched uranium) and did anything they wanted to do. I have been misinformed by DOE, and the people have been misinformed."

Concerns about contamination at the plant and past safety practices have gained nationwide attention because of recent lawsuits filed against former operators. The suits allege that workers were exposed to radioactive material and that past safety practices were not sufficient to protect the health and safety of workers and nearby property owners.

Bunning said Congress will work to ensure that DOE meets its schedule to have the plant cleaned up by 2010. He said it could cost more than $100 million a year to meet that schedule.

Also, Bunning said Bechtel Jacobs, contracted to do the cleanup at the plant, will be investigated as part of the GAO probe. He expressed concern that the company might not have the expertise to do the cleanup work in an efficient and orderly manner.

Bechtel Jacobs was the target of criticism in a recent DOE review of safety procedures and practices at the plant.

Asked if Bechtel Jacobs should remain as the cleanup contractor, Bunning said, "I think we'll have a better idea of that after GAO finishes with its report."

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The Paducah Sun

November 10, 1999

DOE, regulators finding ways to streamline cleanup

By Bill Bartleman
The Paducah Sun

Cutting the bureaucracy necessary to approve cleanup plans at the Paducah Gaseous Diffusion Plant was among the topics during two days of meetings involving top officials of the U.S. Department of Energy and state and federal environmental regulators.

They met Monday and Tuesday to search for ways to streamline the cleanup process, reduce administrative costs and evaluate cleanup priorities included in an agreement between DOE and the Kentucky Cabinet for Natural Resources.

The meeting was scheduled in the wake of criticism from members of Kentucky's congressional delegation that too much money is being spent on environmental management and regulations and not enough on actual cleanup.

DOE has spent $388 million at the plant since 1988, and one-third of the expenditure has gone to actually removing waste.

"One of the things we talked about was how we go about improving the traditional review of documents outlining our plans for cleanup," said James Fiore, acting deputy assistant secretary of DOE's Office of Environmental Restoration. "Normally, we prepare a document, and EPA (Environmental Protection Agency) reviews it and makes comments. Then we respond to the comments. It sometimes is a long process."

In the future, he said, the EPA review will be done while the plan is being prepared by DOE. "We will deal with the controversial issues up front," Fiore said. "It should reduce costs and streamline the process by reducing the amount of time we spend reviewing documents and responding to documents."

He said one of the first tests will come during the next couple of months as a plan is prepared for cleaning up the so-called "drum mountain," a heap containing thousands of crushed drums that are contaminated with uranium dust.

"All the agencies are committed to working vigorously to have drum mountain cleaned up by the end of next year," Fiore said. "With everyone working together, it is very realistic to have that done within a year."

Fiore said most of the discussion was about ways all the agencies can cooperate without compromising safety and regulatory oversight.

"We didn't talk about specifics but set the stage for continued work at the staff level to come up with priorities and ways to stand back and look at what we are doing," Fiore said.

He said there was agreement that the top cleanup priorities are areas such as drum mountain and metal scrap yards that may be contributing to groundwater contamination.

Also, Fiore said officials will review whether future priorities should remain in cleaning up landfills or should shift to cleaning up abandoned contaminated buildings.

Another meeting will be held in about a month to review the progress of the cooperative effort and re-evaluation of priorities.

State officials who attended the meeting were traveling back to Frankfort on Tuesday afternoon and were not available for comment.

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The Paducah Sun

November 9, 1999

Wildlife area near DOE site won't be fenced

By Bill Bartleman
The Paducah Sun

The West Kentucky Wildlife Management Area will not be fenced by the U.S. Department of Energy, Acting DOE Site Manager Dale Jackson told a citizens' advisory committee Monday.

Jackson said that although fencing the 3,000-acre preserve next to the Paducah Gaseous Diffusion Plant was considered to keep people away from a few contaminated rubble piles located in the area, it was never seriously considered.

The rubble piles include scrap concrete from inside the plant where uranium is enriched for use as nuclear fuel.

"The right way to look at solving any problem is to first have an open mind and list all of the alternatives," Jackson said at a special meeting of the Site-Specific Advisory Board, which met to discuss a recent investigation of contamination at Paducah Gaseous Diffusion Plant and surrounding areas.

"Then you go right back and remove those alternatives that are not viable. In this case, the fencing alternative was the first alternative eliminated."

He said that not only was the cost of up to $18 million prohibitive, but also that erecting fencing would not solve the contamination problem. He said there were better solutions.

"The alternatives of moving the piles back into the plant boundaries or posting the area or fencing off just the hot spots is a much more palatable solution than keeping people from enjoying the wildlife area as they have in the past," Jackson said.

The Site-Specific Advisory Board was appointed to give DOE advice regarding issues affecting the plant and the public.

The report, released on Oct. 20, found 14 concerns about worker and public

safety both inside and outside the plant. One of the concerns was that people visiting the wildlife area could come into contact with the scrap concrete, which has low levels of radioactive contamination. The investigative team said something better should be done to protect the public.

The management area is run by the Kentucky Department of Fish and Wildlife and includes hiking trails, nature trails, areas for hunting and ponds for fishing. It is also a popular area for field trails and other outdoor activities.

Jackson's comments defused most discussion about the fencing alternative, but he was criticized by a Kentucky Fish and Wildlife officer who did not identify himself. The officer said that, to his knowledge, no one from DOE had ever discussed cleanup alternatives at the wildlife area with his agency. Jackson said meetings had been held with state wildlife officials, but he wasn't sure who was involved in the meetings without checking meeting notes.

The officer also questioned whether DOE officials were truthful in the past when they said the contaminated concrete rubble piles caused a potential health problem for anyone who came into contact with them. Jackson said the piles of rubble do not pose a health risk but need to be removed.

After some discussion, Jackson acknowledged - as have other DOE officials - that in some cases, DOE has not done a good job of communicating with the public.

Jackson promised that improvements would be made in letting the public know what is going on at the plant. He also promised improvements in the enforcement of safety regulations for people working at the plant.

Most of the criticism of the special DOE team involved procedures and rules that it said weren't being followed by DOE and private contractors doing testing and cleanup work.

There was considerable discussion about the potential movement of groundwater contamination into the Ohio River and into an aquifer that runs under the river and feeds wells that supply water to residents of nearby Metropolis, Ill.

While preliminary information indicates that the level of contamination is low and doesn't pose a health risk, a more thorough study could be ready for review by the committee later this month.

The Editorial Page

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IN OUR OPINION

November 2, 1999

NO CONTEST

GOP is responsible for voter apathy

The 1999 gubernatorial campaign in Kentucky began with a whimper and is ending with an embarrassed groan.

Turned off by a non-competitive and occasionally bizarre race involving incumbent Democrat Paul Patton and three challengers on the ballot who all fall, to varying degrees, outside the political mainstream, state voters are expected to stay away from the polls in droves today. Some analysts believe the turnout may be as low as 10 percent.

This depressing state of affairs is not the fault of Patton, who is seeking a historic second consecutive term. The governor has run a conventional and credible campaign touting his substantial achievements over the past four years.

Conventional and credible are not terms that come to mind when describing the campaign of Peppy Martin, the Republican nominee for governor. Martin barely won the GOP nomination over an opponent who did not campaign. Since then, she has done nothing to indicate she should be taken seriously as a candidate for the state's top office. Most of the state Republican establishment has refused to back Martin, but it can be fairly said that establishment is responsible for her candidacy, given that no Republican of any stature was willing to challenge Patton.

Reform Party candidate Gatewood Galbraith has offered a serious critique of the Patton

Detailed environmental studies necessary before Vortec proceeds

EDITOR:

This is in response to the Oct. 11 letter to the editor entitled, "Vortec waste conversion technology designed to protect the environment," from James Hnat, president and CEO of the Vortec Corp.

Vortec continues to press for bypassing environmental laws designed to protect the environment and provide for public input in decision-making. Mr. Hnat, of course, wants the DOE to cut short the environmental studies and get on with the incineration because his company stands to make tens of millions of dollars. But the fact is this is an experimental device that has never been operated at this scale anywhere in the world before. Because of this fact, the most detailed environmental studies required by law are necessary before it can proceed.

before it can proceed. Accompanying these detailed studies are numerous opportunities for public scrutiny and input into the process.

Why should we accept less than the maximum amount of public scrutiny and environmental studies, which is what Hnat is urging, when considering a facility that will be handling and burning some of the most toxic substances known to man, resulting in discharges into the air and water? Especially when there are numerous environmental questions about the facility that are still outstanding? The answer is simple: we shouldn't.

Finally, Hnat's charge that a "small group of environmentalists" is somehow to blame for the massive waste of cleanup money at the plant is ridiculous and shows he is totally uninformed. It was these same environmentalists who for years spoke of the problems at the plant, in the face of intense criticism from the press, politicians, and industry in the area, problems which have turned out to be true. The $400 million appropriated for cleanup, which has been misspent, was funded out of an entirely different slush fund. That

offered a serious critique of the Patton administration, but he is dogged by his past, which includes three unsuccessful runs for statewide office and a controversial stand in favor of limited legalization of marijuana. A fourth candidate on the ballot, Nailah Jumoke-Yarbrough of the Natural Law Party, has had no discernible impact on the campaign. Hoby Anderson, a Republican legislator, is attempting the longest of long shots - a write-in campaign.

The gist of all this is that Patton almost certainly will win today in a cakewalk. For the governor to win this cheaply is unfortunate, not because he doesn't deserve a second term, but because the lack of a real campaign has denied the people of Kentucky a serious statewide debate about important issues ranging from the expansion of gambling to health care reform.

Again, the blame for the dismal campaign and the resulting voter apathy falls on the leadership of the state Republican Party. Thanks to the Republicans' failure of nerve, it's quite possible the party's gubernatorial candidate will finish in third place. Moreover, the Republicans failed to field a candidate for any of the other statewide offices - attorney general, auditor, secretary of state, agriculture commissioner and treasurer.

Ironically, the GOP's pathetic showing in statewide races comes at a time when the party is on the rise in the state Senate, where it recently claimed a first-ever majority. Republicans hold the state's two U.S. Senate seats and five of six congressional seats.

Republicans rightly complain that the state's campaign finance law makes it exceptionally difficult for a challenger to prevail over an incumbent in the governor's race. However, party leaders can't make an informed judgment about whether a candidate can defeat an incumbent governor until they put forward someone who is capable of winning. In any event, defeatism is not an attractive political philosophy.

different slush fund. That money would not have gone for Vortec anyway. Hnat, who doesn't live around here, is engaging in nothing more than a desperate public attack on local citizens who are working hard to protect the environment in the region. He would have us repeat the mistakes of the past.

This is an experimental project that by its very nature should not be rushed into. The long-term consequences require that we approach it with extreme caution. Because Mr. Hnat does not live in our area, neither he nor his family will suffer any of the negative consequences of this experiment. Moreover, his company stands to gain enormous financial rewards from this sweetheart deal with the government. For these reasons and more his motives should be suspect.

CRAIG RHODES
Brookport, Ill.

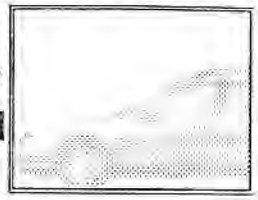
Area has huge gap in health services available to Alzheimer's victims

EDITOR:

Like thousands of other people in our area, my life is touched by a loved one

Republicans handed Paul Patton a free pass in this year's election. When the General Assembly meets next year, the GOP will have to begin dealing with the consequences of inviting this strong Democrat to set the state's political agenda for the next four years.

The Courier-Journal
Tuesday, Nov. 9, 1999 LOCAL NEWS



Paducah panel looks at cleanup priorities

'Drum mountain' is nominated by some people

By JAMES MALONE, The Courier-Journal

PADUCAH, Ky. -- A citizens advisory board grappled last night with the task of deciding which of the dozens of environmental problems at the Paducah Gaseous Diffusion Plant should get top priority for cleanup money.

The panel took no action but heard some people say "drum mountain," a vast pile of rusting radioactive metal drums, should be a top priority. The U.S. Energy Department says the current plan is to sign a contract to begin cleanup by mid-2000.

Other topics nominated for early attention were increasing the amount of information made public about ongoing cleanup work and attacking the sources of pollution that is leaking off-site.

The panel also heard from the Energy Department team that inspected the Paducah plant, which enriches uranium, this fall and found numerous problems, but none that affected the immediate safety or health of workers or the public.

Asked whether ground water contaminated by the plant has seeped into the Ohio River, team member Bill Eckronde replied: "We can't conclude it has not. It very well may have."

But Dale Jackson, the Energy Department's site manager in Paducah, minimized the danger, saying the pollutants were in "small quantities" and the sheer volume of the river would dilute them so much they would be undetectable.

The amounts involved would not exceed any regulatory limits, he said.

Under plans considered by the committee last night, the cleanup of drum mountain and of some burial pits that are leaking contaminants into the soil and water would take top priority.

But Energy Department officials were unable to say whether any significant increase in cleanup money would be forthcoming, nor could they predict the impact of being unable to sell tens of millions of dollars' worth of radioactive nickel. The money from the sale would go for cleanup. Critics say the metal should not be sold because it would present a health threat if used in household or hygiene items.

The money issue is key, Jackson said. He said low-level waste at the plant is

ready to be shipped out of state for disposal, but no money is available to proceed.

Controversy over the Paducah plant erupted last summer after it became known that three Paducah plant workers had claimed in a whistle-blower lawsuit that plant operators and environmental contractors had covered up evidence of pollution and contamination.

The suit alleged that plutonium and neptunium, two dangerously radioactive metals, had contaminated most areas of the plant, posing a risk to employees who claim they were not told of the metals' presence.

A second lawsuit seeking a class action was filed in September. It asks for $10 billion from two former plant operators and a former nuclear-fuel company alleging that Paducah workers and their families were "assaulted" by being un-knowingly exposed to to much radiation.

The Department of Energy and the U.S. Department of Justice have begun separate investigations of allegations in the whistle-blower suit. The Justice Department has asked a judge to delay for six months a Nov. 1 deadline for allowing the agency to decide whether it will intervene in the suit to try to get money for the government and possibly look at whether federal laws were violated.

The Energy Department released the first part of a two-part report in October that outlined broad problems with the environmental cleanup at Paducah. The report faulted local Energy Department oversight, asserted that contractors had been lax regarding safety, and called for additional expenditures. The second part of the ment report, on operations at the plant before 1990, may come out next month.

Both the manager of the Bechtel Jacobs Co. cleanup work at Paducah and the Energy Department's Paducah site manager have resigned since the Energy Department stepped in to investigate problems at the plant.

Also at last night's meeting, the subject of fencing off the West Kentucky Wildlife Management Area drew harsh criticism from a state fish and wildlife employee, who was irate that the Energy Department had even publicly discussed such an idea. He said he had not heard of the idea before.

"What gives us concern is that you have not discussed it with us. That gives us great concern," said Wayne Davis, who works at the Department of Fish and Wildlife Resources' headquarters in Frankfort.

Jackson conceded that it was not a realistic option but said that it had to be considered.

Energy Department officials from Washington who inspected the Paducah site proposed erecting a $16 million fence around contaminated areas in the wildlife refuge, which adjoins the fence around the 744-acre enclosed part of the uranium plant.

Investigators have found that almost 40 piles of concrete rubble and debris from plant construction and demolition projects were dumped off the site years

ago and were used for fill and erosion control in the unpopulated wildlife-management area. The area is operated by the Kentucky Department of Fish and Wildlife Resources on some state-owned land and some land leased from the Energy Department.

Local DOE officials and area residents don't like the fence idea. Government tests have shown that none of the rubble piles have been releasing harmful radiation, though the contents of about nine of them have not been fully studied.

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The Paducah Sun
11/02/99 - P. 10A

Paducah ranks 15th in severity of hazard

Associated Press

LOUISVILLE, Ky.

Although the Paducah Gaseous Diffusion Plant site contains more radioactive waste than was once believed, federal officials say this country has other, more serious radioactive-contamination hazards to worry about.

The U.S. Department of Energy plans to spend three-quarters of its environmental-cleanup budget for fiscal 2000 on projects at the 10 worst nuclear cleanup sites in the nation.

Of the $5.7 billion that the department will spend on waste detection, cleanup, treatment and disposal, $4.3 billion will go to those 10 sites. Fifty-five other cleanup projects, including Paducah, must compete for the rest of the money.

The DOE does consider the Paducah site to be a major environmental problem: It is ranked 15th in spending among the agency's top 20 projects.

The Paducah Sun

November 1, 1999

Plant cleanup tops Patton's stop

By David Fraser
The Paducah Sun

Gov. Paul Patton will continue to pressure Congress to investigate and pay for cleanup work at the Paducah Gaseous Diffusion Plant, he said during a brief campaign stop in Paducah Sunday night.

The stop was one of 19 he is making in a 36-hour whirlwind campaign finish that will end Monday night in his eastern Kentucky home of Pikeville.

The Paducah rally was held outside the Rape Crisis Center on Blandville Road, and about 150 people attended. Accompanying Patton were First Lady Judi Patton, Lt. Gov. Steve Henry and Secretary of State John Y. Brown III.

Sherry Bone, director of the Rape Crisis Center, listed some of the projects and programs provided over the past four years by money from a Community Block Development Grant. Judi Patton spoke about the center, but Patton, surrounded by aides who had already been on the road for 12 hours, kept his focus on the campaign.

"By promoting education we can make this community safer," Patton said. "...We have stuck to issues like this that are important to us throughout the first four years and will continue in the second term.

"...The reason we are making this final 36-hour tour is to show you we are not taking anything for granted. We're not taking you for granted. We will go until late (tonight). It's that important to us that you get out and vote. ...Four years ago western Kentucky delivered for us, and we want to see the same this year."

Patton is the first governor able to seek election to a second consecutive term in the modern era. He said the race carried a responsibility, even if he was faced with competition that he said was historic in its own way.

A veteran of three of his own campaigns for county judge-executive in Pike County and three statewide races, Patton said this election presented its own issues.

"Considering the importance of the race, it's obviously the strangest," Patton said. "You expect kooks in the county judge's race. You don't expect them in the governor's race."

Republican candidate Peppy Martin has made increasingly outrageous comments as the election draws near, has been repudiated by her own party. Reform Party candidate Gatewood Galbraith, who has lost three Democratic primaries for statewide office, has tried to run as a more mainstream candidate and often invokes the experience in Minnesota when Jesse Ventura won the governorship last year.

The Associated Press contributed to this report.

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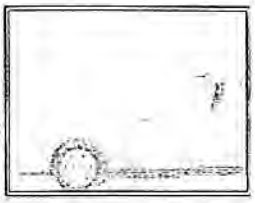
The Courier-Journal
Monday, Nov. 1, 1999 LOCAL NEWS



Paducah problems pale next to some

Other places have far more, worse radioactive waste

By JAMES R. CARROLL, The Courier-Journal

WASHINGTON -- Sen. Larry Craig listened patiently as Kentucky and federal officials talked during a congressional hearing last week about the environmental and safety problems at Paducah's uranium-enrichment plant.

Then, when Sen. Mitch McConnell of Kentucky called on his Republican colleague from Idaho, Craig pointed out that he is one of many lawmakers with radioactive and other hazardous waste sites back home. "How does the Paducah problem compare?" he asked.

That is the nub of the issue as the Department of Energy and the Clinton administration put together a new federal budget amid appeals from Kentucky's congressional delegation and state officials to spend more on cleaning up nearly 50 years of waste at the Paducah Gaseous Diffusion Plant.

Despite the worries generated among workers and in the community by revelations that the Paducah site contains more radioactive waste than was once believed, there are far more serious and more costly radiation hazards elsewhere -- a legacy of the Cold War.

The Energy Department plans to spend three-quarters of its environmental cleanup budget for fiscal 2000 on projects at the 10 worst nuclear sites in the nation. Of the $5.7 billion it will spend on waste detection, cleanup, treatment and disposal, $4.3 billion will be earmarked for those 10 sites. Some 55 other projects, including Paducah, must compete for the rest of the money.

The Energy Department does consider the Paducah site to be a major environmental problem -- it is ranked 15th in spending among the agency's top 20 projects. The agency also is giving a bit more money to the facility for cleanup this year.

"Paducah is serious," Carolyn Huntoon, the agency's assistant secretary for environmental management, said at a hearing on Paducah by the Senate Appropriations Committee's energy and water-development subcommittee last Tuesday. "It has not been dealt with as it should have been."

But the "budget realities," as she called them, are stark: The division she has headed for four months has a spending cap that leaves little room for significantly increasing money for Paducah. Her budget marching orders give her about the same amount to spend in fiscal 2001 as in this year.

And the unspoken implication of Craig's question is that other members of Congress besides McConnell, Sen. Jim Bunning, R-Ky., and Rep. Ed Whitfield,

R-1st District, believe they have projects at least as deserving as Paducah.

Sen. Pete Domenici, the chairman of the subcommittee, said the panel was "massively oversubscribed" on cleanup projects, meaning lawmakers want far more money than is available for home-state problems. The New Mexico Republican has two facilities among the top 10 cleanup sites, which together will get almost $300 million this fiscal year.

Comparing Paducah with some of the largest cleanup projects offers some sobering context.

While Kentucky officials estimate that cleanup at Paducah will cost as much as $2 billion by 2010 (the Energy Department says $1.2 billion), the agency estimates that it will take $100 billion and 50 years to repair the environment at the Hanford Nuclear Reservation in Richland, Wash.

Hanford, which covers 560 square miles, is considered the world's worst environmental hazard. Hanford has more than 2,000 metric tons of spent reactor fuel, 177 aging underground tanks -- 70 of which are leaking -- containing 55 million gallons of highly radioactive waste, and severe groundwater contamination near the Columbia River.

Pumping and treating the 177 tanks will take six to 10 years and cost about $1 billion.

This fiscal year, Hanford will consume $1 billion -- or almost one-fifth -- of the total cleanup budget.

Paducah is to receive $44 million.

Just ahead of Hanford is the Savannah River Site in Aiken County, S.C. The 310-square-mile facility is looking at 40 years' worth of cleanup at a cost of about $30 billion.

Savannah River, which once produced plutonium and tritium for warheads, is dealing with 31 million gallons of radioactive waste in underground tanks. The facility also plans to reprocess 55 tons of weapons-grade plutonium, most of it to become commercial reactor fuel.

This year's spending on Savannah River will come to about $1.2 billion.

Cleanup at the Rocky Flats Environmental Technology Site near Golden, Colo., is budgeted for $637 million this year. The site once was a notorious example of how waste was mishandled. Five buildings on the former site of a nuclear-weapons plant stored plutonium, and thousands of barrels containing plutonium and uranium were left in the open for years, and some leaked.

Craig's state has the fourth-largest project: the Idaho National Engineering and Environmental Laboratory, which will pull in $409 million for cleanup this year. The site near Idaho Falls includes vast amounts of waste, including the core debris and fuel from the 1979 Three Mile Island accident in Pennsylvania.

Kentucky officials are worried that the federal agency's spending on Paducah means the 2010 cleanup deadline won't be met, and they are skeptical about projections of greater spending on Paducah beginning in the middle of the

next decade.

Energy Department officials have been noncommittal about significant spending increases for Paducah, and defend the priorities they have set.

Huntoon said in an interview after last week's hearing that her agency wants to keep going on major projects like Rocky Flats that are nearing completion, so money can be freed in future years for places like Paducah.

The current schedule for completion of cleanup projects at the 20 largest sites shows that four will be finished by the end of 2002. Those four account for $113 million in spending this fiscal year. Six additional projects are to be completed by 2006, and one is Rocky Flats. Those six total $979 million in spending this fiscal year.

Thus, if 10 of the top 20 environmental sites are cleaned up by the end of 2006, that would make more than $1 billion in annual spending available to projects like Paducah -- at least theoretically.

Huntoon tried last week to put Paducah's troubles in a national context. The Energy Department has 1.7 trillion gallons of contaminated groundwater at sites nationwide. Paducah has 10.2 billion gallons -- about 0.6 percent of the total.

Department facilities hold a total of 8.1 million cubic meters of waste with low radioactivity. Paducah accounts for 110,000 cubic meters of that, or about 1.4 percent.

Of 3,000 old, contaminated buildings on sites nationwide, Paducah has two. "The two at Paducah are important, and we are going to deal with Paducah," Huntoon said. But it's a matter of determining which among all those structures pose the greatest risk, she said.

Paducah does account for a significant portion of contaminated scrap metal: About 60,000 tons are in Kentucky, almost 30 percent of the 202,000 tons on sites nationwide.

Kentucky Gov. Paul Patton said last week that he wants to see an immediate appropriation of $100 million for Paducah, and a commitment to spend $200 million per year to make a previously-agreed-upon deadline to decontaminate the site by 2010.

Such spending, if combined in one year, would approach the $325 million in cleanup money being spent this fiscal year at Oak Ridge Reservation in Tennessee. That cleanup includes decontaminating the gaseous-diffusion plant on that site.

For another comparison, Kentucky is asking for more money than the Energy Department plans to spend this year on the Waste Isolation Pilot Plant in New Mexico, a facility that is beginning to accept radioactive waste for permanent storage from sites all around the country.

Although the Energy Department insists its spending is based on what poses the greatest environmental risks, the workers' union in Paducah has doubts.

David Fuller, president of the Paper, Allied-Industrial, Chemical and Energy Workers Union, uncovered a 1996 memorandum of meeting notes from Oak Ridge, at which Tennessee and federal officials debated the wisdom of spending money on demolishing some buildings that were "non-risk-driven work."

He said that in this fiscal year, nearly a third of the money for cleanup managed by the Oak Ridge operations office -- $62.5 million out of $210.1 million -- is going to the removal of machinery in three buildings at Oak Ridge. The work is not considered by Tennessee to be related to risk, Fuller said.

One possible solution to the spending crunch Paducah faces would be to tap into more of the special trust fund established for cleaning up sites. The Decontamination and Decommissioning Fund, known as the D & D Fund, has a surplus of $1.6 billion, and is projected to grow to $6 billion by 2007, McConnell said.

The fund isn't used as much as it could be because it counts against congressionally mandated spending caps. It also makes the federal deficit look smaller, McConnell said.

Rep. Ted Strickland, R-Ohio, who represents the area where the Portsmouth Gaseous Diffusion Plant is located, and Whitfield proposed legislation last week to tap into that fund.

Patton, Ohio Gov. Bob Taft and Tennessee Gov. Don Sundquist support the same thing. "It is our position that future budget requests projected by the Department of Energy will be inadequate to complete (the Paducah, Portsmouth and Oak Ridge) cleanup efforts in a timely manner," they wrote McConnell's subcommittee late last week.

"We respectfully request that Congress keep its pact with our state and adhere to purposes of the D & D Fund," they said. "Therefore, we ask Congress to dedicate all future D & D Fund receipts to the completion of the (cleanup) agreements at these three sites."

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The Editorial Page

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The Paducah Sun

November 7, 1999

Real cleanup work has been accomplished at plant since 1980s

As the Department of Energy Acting Site Manager at the Paducah Gaseous Diffusion Plant, I am writing to address suggestions in recent Paducah Sun editorials that $400 million has been wasted in the U.S. Department of Energy's environmental cleanup program at the Paducah plant.

Contrary to editorials of Oct. 19 and 22 (Glacial Pace - DOE site cleanup mired in bureaucracy; and Cleanup Scandal - DOE report finds indifference, inertia) we have accomplished real work since the 1980s. These activities include constructing two groundwater treatment systems and treating 600 million gallons of groundwater, constructing an on-site sanitary landfill, and disposing of 5.8 million pounds of hazardous and radioactive waste.

We are dealing with an environmental legacy dating back more than 40 years to the plant's founding to enrich uranium for nuclear weapons activities. Radioactive and hazardous materials have tainted the soil and water through the years.

It is true that since our cleanup work began at the plant in the late 1980s, we have spent a lot of time and money working with our regulators - the Commonwealth of Kentucky and the U.S. Environmental Protection Agency - to understand exactly what are the problems while complying with strict laws on how we may accomplish our work. These laws require detailed testing, monitoring and maintenance, as well as extensive groundwater treatment that must be conducted regularly to ensure safety and minimize the risks to workers, the public and the environment.

Simply put, we must understand the problem before we can tackle it. And we are committed to getting the job done in western Kentucky. This year, we will spend almost $10 million for waste treatment and disposal and more than $7 million to remove rusting contaminated metal drums at the plant. Almost two-thirds of our Paducah cleanup budget will be spent on waste management and specific cleanup projects.

We plan to keep things moving in 2000, but need the help of Congress, local elected officials, the public and our regulators. It clearly costs a lot of taxpayer money to accomplish our work dealing with an environmental legacy dating back to 1952.

We have confidence in the recently released environment, safety and health report that identified ways we can do a better job. Our environmental cleanup contractor, Bechtel Jacobs Company, is moving ahead to take quick action where we may improve our operating practices. And this action will be taken with the protection of our workers, the public and the environment as the guiding principle.

It will take time to finish the cleanup job at the Paducah Gaseous Diffusion Plant. It will cost money, but that which has been spent is moving us toward completing the job.

J. DALE JACKSON

Paducah

The Courier-Journal
Friday, Nov. 5, 1999 LOCAL NEWS

Idea criticized despite concerns for public safety

Wildlife refuge may be fenced

Dumped nuclear material stirs Paducah debate

By JAMES MALONE, The Courier-Journal

PADUCAH, Ky. -- Department of Energy officials in Washington are considering fencing off a popular wildlife refuge next to the Paducah Gaseous Diffusion Plant as one way to limit public exposure to dozens of piles of mildly radioactive concrete that plant workers have dumped there over the years.

But that suggestion has received a chilly reception. Local Energy Department officials said they would fence off the area only as a last resort or if ordered to do so. Another option would be to remove what materials could be hauled back inside the facility's boundary.

The Paducah Gaseous Diffusion Plant, background, is almost surrounded by the West Kentucky Wildlife Management Area, where radioactive concrete was dumped.
Photo by JIM ROSHAN

Local Energy Department officials have insisted for years that the West Kentucky Wildlife Management Area is safe, but a recent investigation of safety practices and environmental problems at the plant prompted the suggestion to close the refuge to the thousands of hunters, bird-watchers and schoolchildren who visit every year.

The Energy Department's acting Paducah site manager, Dale Jackson, said that while closing the wildlife area "has been suggested," it "will not be a preferred option" of the local department officials, who oversee operations at the plant.

Some of the three dozen rubble piles have been sprayed with red paint and marked with warning signs, although critics contend the markings could be missed.

The materials were dumped in the refuge with the agreement of the state, partly to control erosion. The DOE and state each own parts of the almost 7,000-acre refuge.

The government's current plan is to

do nothing with 28 of the 37 "areas of concern," because tests have shown the radiation is not above natural levels, said Steven Wyatt, an Energy Department spokesman in Oak Ridge, Tenn. The remaining piles are radioactive and are being studied, Wyatt said.

About 50 tons of concrete chunks and soil were taken out of the wildlife area in 1996-97 and stored back inside the plant's fence after tests found elevated levels of cesium-137 in the soil.

Leaving the material in most of the piles alone is a markedly different posture than what the government was telling the public in 1991. Energy Department records obtained by The Courier-Journal show that former DOE site manager David Allen advised people who asked questions about the rubble in that year that it was "slightly radioactive" but "regardless, most of it will be moved back to the plant."

DOE officials were unable to explain that change in posture yesterday, nor could they explain why the agency is considering fencing off an area it has said is safe. The proposal will be discussed Monday night at a meeting near Paducah of the plant's citizens advisory board.

The tract, which on three sides abuts the plant's 744-acre fenced perimeter, is home for many species of small game, predatory birds, and deer. It also has seven fishing ponds, hiking trails and picnicking areas. It is used by hunters, fishermen, nature lovers and Boy Scouts, said Mike Boatwright, the 1st District member of the state Fish and Wildlife Commission.

Fish and Wildlife records show that by far the largest majority of users are not hunters but visitors who watch or photograph wildlife or take in the scenery.

"This would severely impact anyone who uses the area," said

2 Paducah scrap pits classified as 'secret'

Investigation led to move after worker overcome by fumes

By JAMES MALONE

PADUCAH, Ky. – The U.S. Department of Energy has decided to classify two old burial pits at the Paducah Gaseous Diffusion Plant as "secret." The action was prompted by an investigation after a worker was overcome by fumes in late September.

The Oct. 15 decision to classify the pits was a security step that limits the general public from knowing or seeing what's buried in them. The step was taken after former plant workers told Energy Department investigators that equipment from inside the plant was buried in the two dumps, which cover six acres on the northwest side of the plant.

The department had previously said that one of the pits contained scrap metal contaminated with uranium.

Traces of transuranics – potent radioactive elements – also have been discovered in the area, according to Bechtel Jacobs Co., the government's environmental cleanup contractor at the plant.

The worker accident itself was not linked to any classified equipment. But learning such material was discovered there raised concerns, said Gabe Marciante, the Energy Department's classification officer for its Oak Ridge Operations office. Although the technology used to enrich uranium at Paducah is about five decades old, the government still thinks it should not fall into the hands of other "nuclear proliferants" who want to develop nuclear weapons, Marciante said in a telephone interview.

Another secret pit at the plant was used from 1965 to 1987 for burial of radioactive components that came in part from the Pantex weapons plant in Texas.

A concern for the government is that it's not only the appearance or shape of a particular component that's secret but also its metallurgical makeup. "Proliferants" could gain insight into the enrichment process by using reverse engineering to find out what types and amounts of metals were in a particular component, Marciante said.

No environmental information in terms of sampling results or chemical constituents

who uses the area," said Boat-wright, an avid sportsman. "We most definitely would oppose it, and we would press hard and ask them to mitigate it by making an alternate site available."

Each year, hundreds of area schoolchildren are bused to the wildlife area to celebrate Earth Day and learn the importance "of maintaining a clean environment," according to a state flier touting the event.

Thousands of sportsmen also visit the site every year, and in late fall, some national field trials for hunting dogs are held in the area. Traces of plutonium and other radioactive materials have been found in deer killed in the wildlife management area, but state and federal officials have said the deer don't present a hazard to the public.

sampling results or chemical constituents will be deleted from public reports. The classification designation does prohibit the general public and uncleared workers from having access to the site within the 744-acre fenced boundary.

The Energy Department will consider whatever steps are eventually recommended to clean up the pits. That could involve leaving the classified material in place, removing it to another secure location or melting it.

The accident occurred Sept. 24 when a core drilling team was taking ground-water samples and one worker became ill after inhaling fumes. Work was suspended in the area, leading the Energy Department to contact former workers to find out what may have been put in the pit.

Wyatt, the DOE spokesman, said the off-site dumping of radioactive material would be prohibited today. "I wouldn't imagine doing anything like that in today's environment," he said.

Much of the debris is rubble from construction projects, concrete tear-outs, and replaced roads and sidewalks on plant ground or from floors of radioactive material storage areas. The concrete chunks have been used for erosion control and fill in the wildlife area, to prevent stream banks, culverts and dams from washing out.

Tests on the rubble since 1994 by a DOE contractor have found a wide variety of radioactive isotopes, including plutonium, neptunium, uranium and cesium. But a 1997 environmental report on the area concluded that the level of radioactivity were minimal -- "at or near background levels" -- and not a threat to the public.

Plant critics are skeptical of the test results, especially in light of allegations in a whistle-blower lawsuit filed this summer that alleges that contractors who managed the clean-up program at the plant lied to the government about levels of contamination.

"If it's contaminated enough, parts may need to be fenced off," said Mark Donham, an environmentalist who lives in Brookport, Ill, and also serves on the citizen advisory board. Donham said he has spoken with former workers who say that testing of the rubble piles was not thorough.

State environmental officials were not available yesterday to discuss the issue. But state Wildlife Commissioner Tom Bennett said no one had advised state officials that there was any imminent health or safety threat from the concrete. Based on what he knows, he said his agency would oppose closing the wildlife area.

Jackson said the topic of closing the site had come up at a subcommittee of the citizens advisory board, which is drafting replies to a report released last month by an Energy Department inspection team that was critical of the Paducah plant's management and the oversight by local Energy Department officials. "I think (fencing) is an alternative, but not an attractive one," Jackson said.

Preliminary estimates put the cost of the fencing project at $16 million. Bill Tanner, who served on the subcommittee that heard the proposal, said, "I feel it's the worst thing they could possibly do -- building a fence is admitting defeat."

Tanner, who is superintendent of the West McCracken Water District that serves homes around the plant, said that while driving the back roads he will occasionally pull over and watch hawks flying in the refuge.

"This would attach a stigma to this region. It would be detrimental for years to come," Tanner said. "It would be a McCracken County Wall."

Previous stories on the Paducah plant are online at:
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The Paducah Sun

November 4, 1999

Disposal violation at plant prompts USEC reminder

By Bill Bartleman
The Paducah Sun

Four weeks after the United States Enrichment Corporation reminded its employees about rules regarding access to material storage areas inside the Paducah Gaseous Diffusion Plant, workers violated those rules by placing unauthorized waste in a storage area that now may be contaminated with fissionable material.

The incident, which happened Monday, is being investigated by several agencies, including the Nuclear Regulatory Commission. An NRC spokesman said USEC could be cited for a violation, which would be its 105th since NRC began regulating USEC operations in March 1997.

The latest matter, which was discovered and reported by USEC supervisors at 10 a.m. Tuesday, did not create a hazard for employees or the community but was a violation of rules intended to protect the plant from a serious nuclear accident, called a criticality accident.

USEC manages the uranium enrichment production facilities at the plant.

"This was not serious from a safety standpoint, but it was serious because we don't tolerate people violating procedures," USEC spokeswoman Elizabeth Stuckle said by phone from headquarters in Bethesda, Md.

The U.S. Department of Energy has 148 material storage areas at the plant where equipment and containers are stored that may contain enriched uranium that, if mishandled, could cause a criticality accident.

Strict procedures require that no materials be added or removed from those areas without the written approval from DOE or Bechtel Jacobs Co., the company hired by DOE to manage the plant's legacy waste program.

On Monday, electricians repaired and replaced light ballasts in the C-400 building and, without authorization, disposed of the old ballasts in a material storage area inside the building. The ballasts are a hazard because they contain PCBs, a known carcinogen.

Greg Cook, spokesman for Bechtel Jacobs, said the storage area in question is at a low risk for a criticality accident. He said it is considered a criticality risk because of the potential for the presence of enriched uranium.

Stuckle said an investigation has begun to determine why and how the violation occurred.

"The area was properly marked with signs noting that entry required permission of the shift supervisor and with references to the procedures that must be followed to place material in the area," Stuckle said. "It simply was a personnel error."

Stuckle said she didn't know how many workers were in the area at the time of the violation but all were trained in safety procedures. She said they also were among those who received a memorandum Sept. 30 reminding them of the proper procedures when seeking access to the waste storage areas.

Cook said the incident concerns Bechtel Jacobs because of the Sept. 30 memorandum and the findings of a recent DOE investigation of safety conditions at the plant.

The employee memo said: "Never add or remove items from a ... (DOE storage area) without written permission from DOE/Bechtel Jacobs."

Cook said USEC is expected to come up with a new plan for notifying its employees of the rules and seeing they are followed.

Stuckle said it was too early to predict what will happen to the employees who violated the rules. She said it could range from retraining on the procedures to disciplinary action.

The incident comes at a time when there is a heightened awareness and concern for safety at the plant where uranium is enriched for use as a nuclear fuel.

The USEC memo was issued after a special DOE investigative team found that procedures related to access of the controlled storage areas were being violated and that warning signs were not properly maintained. Those concerns were expressed to USEC management in a Sept. 20 letter, which was the reason USEC sent a memo to its employees.

The DOE investigative team was sent to Paducah from Washington by Energy Secretary Bill Richardson because of recent allegations in two lawsuits that contamination at the plant is worse than previous reports indicate, and that working conditions may not be safe.

The first phase of the investigation looked into existing safety conditions and waste generated since 1990. One of the major concerns raised by the investigators was the lack of oversight of rules related to me material storage areas because of the potential of a criticality accident.

Overall the investigative team said the plant was safe for employees and the nearby neighbors.

The second phase of the investigation involves plant operations and environmental waste generated from the time the plant opened in 1952 until 1990. That report is expected to be issued early next year.

Cook said the light ballasts have not been removed from the storage area because they are now a part of the hazardous material. He said technicians will investigate and prepare a plan for its possible removal.

"They aren't causing a hazard, so we left them where they are," he said. "If they were removed without the proper analysis, it would be another violation of the rules."

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The Paducah Sun

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Company eager to begin cleanup

By Bill Bartleman
The Paducah Sun

Bechtel Jacobs Co. President Joe Nemec said he is just as eager as the public and Kentucky congressmen to get on with the actual cleanup of contamination of the Paducah Gaseous Diffusion Plant.

However, Nemec said cleaning up nuclear waste at any U.S. Department of Energy site is not an easy, speedy or inexpensive task. Bechtel Jacobs has a contract with DOE to plan and oversee the environmental cleanup at the plant where uranium has been enriched for use as a nuclear fuel since 1952.

"We don't get our jollies out of paperwork and studies," Nemec said in an interview while visiting Paducah on Friday. "We get our jollies out of doing actual cleanup work and seeing things happen. Our focus is on completion of work, not continuing on with the process of planning the work."

Bechtel Jacobs, the environmental contractor at the plant since April 1998, has drawn criticism for what some say is the slow progress of cleanup. The company has also been criticized in a DOE report for not giving proper oversight to seeing that some of its subcontractors follow safety procedures.

Bechtel Jacobs has already begun taking action to respond to the DOE report. A final action plan will be delivered to DOE next month.

Nemec said a change in site managers will provide a new perspective for the company's work. On Thursday, he announced that longtime plant employee Jimmy Massey was being reassigned. Effective Monday, he'll be replaced by Gordon Dover, a Bechtel Jacobs official currently in Oak Ridge, Tenn.

Nemec said the change was made after extensive discussions he had with Massey.

"We've had discussion over the past two months about what might have to be done, and whether it was appropriate for him to move on to something else," Nemec said. "We talked about the benefit of having a fresh set of eyes to look at things. He basically concluded that making a change was the right thing to do and that making a change was appropriate.

"I admire him for his professional attitude and looking ahead for the betterment of the job that has to be done. Jimmy did an excellent job, and I am very supportive of him. We will have a major assignment for him in our organization."

For the next few months, Massey will stay at Paducah and help Dover make the transition. He'll also help implement the plan to correct safety concerns of DOE.

In the interview, Nemec also talked about criticism that $388 million has been spent and that very little actual cleanup has taken place.

"There is a lot of money that must be spent up front," Nemec said. "It isn't spent just on paperwork. We have to drill wells and take samples to understand the scope of the contamination, do engineering studies to determine the corrective action, and then get regulators and the public to

agree to those corrective actions."

Also, he said money must be spent to manage the waste and implement temporary measures to stop the contamination from spreading while a cleanup plan is prepared.

In Paducah, he said, the early work included spending several million dollars to run public water lines to nearby property owners whose wells were contaminated and building a plant to treat groundwater that was feeding the contaminated wells. Also, there are other ongoing costs associated with managing thousands of tons of waste that has been accumulating for 47 years.

The cost associated with the early planning and remedial action is a common complaint in any nuclear cleanup, Nemec said. He said it is necessary to protect the health and safety of workers and the community.

"In the early years of this type of work, you might spend only 25 percent or so on actual cleanup and the rest on planning and waste management. But when we get through the planning stage, that will change to 75 or 80 percent on cleanup."

Since cleanup of the Paducah plant began in 1988, DOE officials estimate that only one-third has gone for actual cleanup. In some years, DOE officials say that planning and compliance with regulations consumed 89 percent of the funds.

Those figures have drawn sharp criticism from U.S. Sens. Jim Bunning and Mitch McConnell and U.S. Rep. Ed Whitfield, who said too much is being spent on paperwork and too little on cleanup.

The members of Kentucky's congressional delegation also are concerned that DOE has not been aggressive in seeking the funds to meet a 2010 deadline for removing the major waste from the Paducah site.

Nemec said the 2010 deadline can be met if DOE keeps up with an annual funding schedule that calls for a peak spending of more than $160 million in 2008. In that year, he said, more than 80 percent would be used for actual cleanup.

Nemec said the current cleanup work is on schedule.

The first major cleanup project will be a portion of a metal scrap yard that contains more than 5,000 crushed drums. Plant officials call it "drum mountain."

DOE officials promised McConnell at a hearing Tuesday that drum mountain would be removed by the end of 2000. McConnell was skeptical of that promise but said it would be a major accomplishment if that goal could be met.

Nemec said his company would do all it can to remove the drums but didn't make any promises Friday.

"We hope it is an achievable goal; that is all we can say at this point," said Nemec, adding that doing it safely is more important than doing it quickly.

He said engineers are aggressively working on a cleanup plan that won't be ready before the end of the year. After it is prepared, it must be approved by state and federal regulators and by the Site-Specific Advisory Board, a citizens' group whose approval is predicated in part on public input. Then DOE must provide the funding.

As long as there are no major objections, he said, a contract can be awarded and work can begin next spring. "We can avoid delays and make sure we do a good job of briefing people on our plan and a good job of preparing material to document the plan."

He said it is too early in the planning process to say what method will be used to dispose of the drums, but he assumes they will be removed from the Paducah site and taken elsewhere for proper disposal.

Another top priority is a survey of material storage yards that contain equipment contaminated with highly radioactive material. A special DOE investigation concluded that 13 areas had a risk for a nuclear reaction that could cause a "criticality accident."

Nemec said Bechtel Jacobs had prepared a preliminary plan and estimates for studying those storage areas to assess the risk of a criticality accident. Those documents are now being studied by DOE and have not been made public. That work project, like others, is not covered by funding for the current fiscal year.

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The Paducah Sun
October 21, 1999

Risk of accidental nuclear reaction makes cleanup priority, report says

By Bill Bartleman
The Paducah Sun

High priority is being given to cleaning up 11 areas of the Paducah Gaseous Diffusion Plant where investigators say there is a possibility of an uncontrolled nuclear reaction accident that could endanger workers and the public.

The potential for an uncontrolled nuclear reaction - called a "criticality" accident - was first identified in 1997, but little was done to eliminate the danger until a special U.S. Department of Energy investigative team visited the plant in late August, according to Dale Jackson, DOE's acting Paducah site manager.

"We failed to give it the appropriate priority in the past," Jackson said. "We have told our contractors to do a characterization of the areas and clean it up."

A 55-page report on the investigative team's findings was released Wednesday in Washington. It identified a number of problems, including the slow pace of contamination cleanup, improper monitoring of groundwater contamination and inadequate oversight to ensure that safety procedures are being followed.

The report addresses areas of the plant under the direct control of the U.S. Department of Energy that are contaminated from almost 50 years of operation. It does not include areas of current production facilities that are leased to the United States Enrichment Corp.

The report included the first public mention of the potential for a criticality accident similar to one that occurred Oct. 1 at an enrichment plant in Tokaimura, Japan.

Jackson, in a telephone news conference with other DOE officials, said it would take extreme set of circumstances for an accident to occur. However, he said that even the slightest chance of an accident is a reason for concern and taking immediate action.

Jackson said the highly enriched uranium that could cause such an accident is contained in component equipment parts that were shipped to Paducah from DOE facilities in Oak Ridge, Tenn., and Portsmouth, Ohio. At those facilities, uranium was enriched to a level as high as 96 percent, as opposed to less than 5 percent in Paducah.

Jackson said the component parts that contained the high-grade uranium were sent to Paducah for use as spare parts. They have been at Paducah since at least 1996, according to David Stadler, senior manager of the DOE investigative team.

He said the team's major concern was that until recently, very little attention was given to that equipment and to identifying exactly how much highly radioactive material was left in it.

Five of the storage areas are located within the USEC complex of buildings. However, DOE is in charge of removing the contamination.

Jackson said those five areas have the highest priority for cleanup because they are located in

buildings that USEC is upgrading to meet earthquake standards.

Bechtel Jacobs Co., the contractor hired to oversee cleanup and manage waste, already has begun work to eliminate the hazard. The company estimates that by the end of the month it will prepare a cleanup plan and a schedule for carrying it out.

Stadler said two other major concerns of the DOE team were the lack of progress to clean up "drum mountain" and the need to improve oversight and training to make sure all safety procedures are followed.

"Drum mountain" is in the middle of a contaminated scrap yard located at the plant. It includes more than 5,000 crushed drums that are contaminated with radioactive material and some hazardous chemicals.

Studies have indicated that contamination from "drum mountain" is the source of groundwater contamination that has moved two miles from the plant site and still moves at a rate of one foot a day toward the Ohio River.

"Until you remove the source of the contamination, the movement of the groundwater plume will continue," Stadler said.

His report said a goal of removing "drum mountain" within two years isn't likely to be met because of inadequate funding by DOE. The cleanup is scheduled to begin next summer.

Stadler also said the investigative team found that both DOE and Bechtel Jacobs handled oversight of safety issues inadequately. As a result, the potential existed for worker exposure and accidents.

Jackson expressed concern about the quality of work being done by Bechtel Jacobs and said the company's work will be closely monitored to make sure safety procedures are followed.

At the same time, Dr. David Michaels, assistant DOE secretary for Environment, Safety and Health, said DOE shares some of the blame for the problems.

"There is plenty of blame to go around," Michaels said. "DOE is not exempt from looking at itself. We had a role in allowing a lot of these things to develop."

The six-week study of the plant is the first of two ordered by Energy Secretary Bill Richardson. Phase I looked at existing conditions and contamination issues created since 1990.

He said the 23-member team collected samples from groundwater, surface water and soil; interviewed more than 100 managers and workers; observed work activities and inspected facilities; and reviewed hundreds of documents and previous plant studies.

Phase II, which is under way, will look at issues from the time the plant opened in 1952 until 1990. Stadler said a final report on that phase is expected by the end of the year.

Michaels said work already has begun to fix some of the problems mentioned in the report. "The final report largely confirms the preliminary findings we reported to the Congress last month and confirms that current operations do not present an immediate risk to workers or the public," Michaels said.

"The investigators documented a number of weaknesses that perpetuate the risks and hazards of legacy operations and that the department needs to fix. But these are not insurmountable problems."

Michaels said the following actions are being taken in response to the report:

--DOE, Kentucky EPA officials and

the U.S. Environmental Protection Agency are re-examining current site priorities, schedules and funding for identifying problems and cleanup.

--Problems of inadequate postings at some contaminated sites have been corrected.

--Requirements for work permits in contaminated areas have been reviewed and clarified to ensure that safety rules are being followed.

--Besides identifying areas where the potential for an uncontrolled nuclear accident exists, workers have received special training on safety procedures to prevent and control such an accident.

--Two full-time additional DOE employees have been assigned to Paducah to provide regular surveillance of operations and safety practices.

--DOE officials in Paducah will have 30 days to prepare a plan of action to respond to findings in the report, including finding ways to secure contaminated buildings that were closed 20 years ago. The team said the buildings are deteriorating at a rapid rate and create a potential for spreading contamination to other areas on and off the plant site.

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The Paducah Sun

October 21, 1999

DOE: 14 issues need immediate attention

The U.S. Department of Energy investigative team found 14 issues that it said need immediate attention at the Paducah Gaseous Diffusion Plant. The following is a list of those issues, and a response from Bechtel Jacobs, the company hired to handle cleanup and waste management:

Issue 1. Progress in identifying and removing environmental contamination, low-level waste and stored hazardous materials has been limited. A lack of money jeopardizes major cleanup goals and schedules included in an agreement with the Kentucky Natural Resources Cabinet.

Response: Without more funding, cleanup activities will not meet goals identified in the agreement with the state. Work is being accelerated to clean up "drum mountain" after Congress approved increased funding.

2. Weaknesses continue in the radiation protection management of known environmental contamination areas by both Bechtel Jacobs and DOE.

Response: Improvements are being made, including additional posting of contaminated areas. Temporary signs have been installed, and permanent signs are expected to be in place by the end of the year.

3. The movement of radioactive exposure throughout the plant and to off-site locations has not been fully assessed or documented.

Response: An evaluation of air monitoring is under way. Also, Bechtel Jacobs will meet Nov. 30 with state and federal environmental protection officials and others to discuss monitoring. A revised management plan will be submitted to the state Jan. 15.

4. Groundwater contamination has not been adequately identified in some areas.

Response: A study is under way to update the movement of groundwater contamination that is moving toward the Ohio River. A feasibility study for removing contamination from the groundwater is to be completed in June.

5. Environmental conditions at the plant are not fully understood because officials have not properly analyzed all of the environmental information that has been gathered.

Response: Improvements are being made in an environmental monitoring plan that will help coordinate findings from different monitoring activities. A revised plan is expected by the end of the month.

6. Delays in the release of information to the public and a lack of clarity when it is released contribute to a general perception that DOE and Bechtel Jacobs are withholding information.

Response: Bechtel Jacobs officials have been working with the DOE public affairs office to improve communication with the public. A new communications plan for Paducah is expected to be issued by Nov. 9.

7. All of the radioactive contamination has not been identified, which hampers the ability to identify hazards and institute radiation safety procedures.

Response: Bechtel Jacobs has launched an independent review of its radiation protection program. A final report is expected by Nov. 30.

8. Rigor, formality and discipline are lacking in the development, maintenance and implementation of the Bechtel Jacobs radiation protection program.

Response: The independent review will include these issues.

9. Deficiencies and problems in the material storage areas create a remote possibility for an uncontrolled nuclear reaction, called a criticality.

Response: Work is under way to fully identify radioactive materials in the material storage areas. Workers also have been given special training to prevent an accident.

10. Safety and health procedures are not consistently applied and followed, and, in some cases, procedures do not adequately address the problem of hazards.

Response: Monthly performance assessments will be revised to include health and safety procedures.

11. There is no assurance that worker medical programs are effective because Bechtel Jacobs has not involved its medical personnel in the identification, evaluation and integration of workplace hazards.

Response: Procedures will be changed to document the effectiveness of the programs.

12. Bechtel Jacobs training programs are not adequate to ensure that all workers are knowledgeable of hazards and protection requirements, including those associated with transuranic contamination.

Response: All training programs have been improved to include information about transuranics.

13. DOE does not oversee environmental, safety and health programs well enough to ensure that Bechtel Jacobs and its subcontractors effectively implement all DOE and regulatory requirements.

Response: DOE has assigned two more workers to oversee programs.

14. Bechtel Jacobs does not oversee environmental, safety and health performance well enough to ensure that its subcontractors effectively implement all DOE and regulatory requirements and are held accountable.

Response: The company has implemented programs that are documented in reports filed with DOE.

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The Courier-Journal
Thursday, Oct. 21, 1999 LOCAL NEWS

Paducah nuclear reaction possible

U.S. report says accident is unlikely

By JAMES MALONE, The Courier-Journal

PADUCAH, Ky. -- At least 11 storage areas in the Paducah Gaseous Diffusion Plant contain nuclear materials with uranium potent enough to warrant concern about an uncontrolled reaction, the Energy Department said in a report issued yesterday.

The storage areas contain encrusted parts from uranium plants that processed higher levels of uranium than at Paducah. Department officials said the chance of an uncontrolled reaction is remote but cannot be ruled out without further study. Such an event would be marked by intense heat and a flash of light.

Cleaning up the storage areas is a top priority for the Energy Department, said Dale Jackson, Paducah site manager.

"It's something we did not give an appropriate priority to in the past," Jackson said. Several of the storage areas are in buildings leased by the United States Enrichment Corp., a private company that enriches uranium for nuclear fuel. The company did not comment.

In releasing their detailed report on environmental and safety problems at the diffusion complex about 12 miles west of Paducah, Energy officials yesterday shared blame for lapses that have fouled the soil and water during the plant's 47 years of operation. And there were still no explanations about the slow pace of the $400 million, decade-old cleanup around the plant.

The plant has been under heightened scrutiny since a sealed lawsuit in June alleged that evidence of trans-uranics, highly radioactive elements, had been hidden from workers and the public. The materials, such as neptunium and plutonium, were present in nuclear reactor control rods shipped to Paducah to be converted to reactor fuel. They also have leaked into the environment.

"There's plenty of blame to go around," said David Michaels, Energy Department director of oversight, during a briefing for reporters. But the department also repeatedly faulted its contractor, Bechtel Jacobs Co., for failing to implement procedures and proper oversight at the Paducah plant since it took over in April 1998.

The 55-page report was ridded with references to Bechtel Jacobs' lapses and failures. But it also noted that many of the problems had been brought to light during a 1991 inspection under a different contractor and had continued or recurred.

Still, the report said Bechtel Jacobs' radiation protection program for workers

lacks "rigor, formality and discipline" and it cited "continuing weaknesses in radiation protection management" of known contamination areas. "None of the current Bechtel Jacobs safety training modules address the presence of transuranics contaminants at the site," the report said. "Training for radiation control technicians does not include monitoring for transuranics."

MOREOVER,

THE

department found that the company was not fully overseeing its subcontractors or holding them accountable.

Jackson said the department "is looking very closely" at Bechtel Jacobs' performance and its "capabilities and willingness to proceed."

Bechtel Jacobs spokesman Mark Musolf said the company will improve its performance and is already making changes.

The report also disclosed that ground water outside the plant's fence contains minute traces of plutonium. Test results found extremely small traces of the highly radioactive material in six of 15 wells sampled. A summary of the test results shows radioactive material in 10 of the 15 wells.

Ground water contaminants are in an underground plume that's slowly moving toward the Ohio River, about 21/2 miles from the plant. Jackson said he was unable to say if the leading edge of the plume was mixing with the river. But Jackson and other experts have said that the river would dilute the contaminants to near-undetectable levels. The materials escaped from drains or broken pipes or from landfills, the Energy Department said.

Ronald Lamb of Kevil, who lives near the plant, said tests showed small traces of plutonium in his drinking-water well nearly a decade ago, but Energy officials insisted it was a lab error.

"I'M PLEASED

just for them to admit it's in the water," said Lamb. "It makes us look credible."

The government has paid to run city waterlines to the homes of people near the plant whose wells have been contaminated since the discovery of off-site contamination in 1998.

Energy officials said their other top priority is to clean up "drum mountain," a large, decades-old pile of rusted, flattened metal drums, and radioactive material on the grounds. That cleanup should get under way in mid-2000, officials said.

And David Stadler, who led the investigative teams that went to the Paducah plant this fall, said maintaining funding is critical to keeping the cleanup on schedule to be completed by 2012.

Reaction to the report was mixed. Richard Miller, a policy analyst for the Paper, Allied Industrial, Chemical and Energy Workers union, which represents

about 800 hourly workers at the plant, said the results are a compelling reason to remove Paducah from the oversight of the department's operations office in Oak Ridge, Tenn., and create a separate office to oversee Paducah and a sister plant in Portsmouth, Ohio.

"It pointed out the failure of Oak Ridge to request sufficient funding for cleanup and the deficiencies of Oak Ridge oversight of Paducah operations," Miller said. "This is the autopsy report on the effectiveness of Oak Ridge oversight."

Miller said he also was concerned about the fissile material (which can react uncontrollably) and the potential risk for workers. "Overall, what the report brought to light were significant safety issues that workers at the site knew nothing about."

U.S. Rep. Ed Whitfield, R-1st District, who was briefed yesterday by the Energy Department, said he came away feeling "perplexed and frustrated and disappointed that so little has been done" to clean up the site.

One concern Whitfield said he raised was why many people have kept their cleanup jobs even as management of the effort has changed hands. And based on his briefing, Whitfield said, "workers have a right to be concerned. There's no question that there's a lot of contaminated areas out there today."

SEN. MITCH

McConnell, R-Ky., said after he read the report, "I've concluded that if I were grading the DOE's cleanup efforts, I would give them an F."

Another issue not discussed by the department yesterday was why remedial environmental monitoring results have not been included in the annual Paducah environmental report since 1993. Excluding such material appears to be a violation of an Energy Department order that specifically directs that such data be included, the oversight team concluded. But local managers had concurred in editing the results out of the Paducah report, the department said.

Local Energy Department site manager Jimmie Hodges resigned in August to pursue an opportunity in private business. Hodges said his resignation was not related to the investigation, and Energy officials said Hodges was welcome to stay.

The report noted that the Paducah site information is not communicated clearly and completely to the public. It found that the Paducah site "significantly reduced communication efforts" between 1996 and '98, curtailing public information bulletins, public meetings, personal contacts and speaker bureaus.

It found there are limited Bechtel Jacobs personnel available to provide technical information to the public.

Michaels, the Energy Department oversight official, said the Paducah report was significant because it represents a new system of following up on corrective actions.

The Paducah Sun
October 28, 1999

Limited illness found in study of ex-workers with uranium

By Bill Bartleman
The Paducah Sun

Some limited work-related illness has been found in former workers at uranium enrichment plants in Paducah; Portsmouth, Ohio; and Oak Ridge, Tenn.

Dr. Steven Markowitz, who is in charge of a study of the workers, said the limited findings so far indicate workers suffering from hearing loss, scarring on lungs caused by exposure to asbestos, and cases of emphysema.

He said those findings were not unexpected and so far have not been at extremely high levels.

Also, he said cancer in one former worker has been linked to asbestos exposure.

He did not know who the worker was or whether he was from Paducah, Portsmouth or Oak Ridge.

Markowitz said 450 people have been gone through the health screening since the program began last year.

The goal is eventually to test 15,000 current and former workers. Markowitz wants more funding from the U.S. Department of Energy so that the testing can be completed in five years.

A breakdown was not available on how many of those screened had worked in Paducah and what their test results showed, Markowitz said.

Although he said all levels of work-related illness are serious to those who have the illness, he didn't recall any extreme cases, other than the one who was diagnosed with cancer.

"There may be some other occupational lung diseases in those workers that we haven't defined yet," Markowitz said in a telephone interview from Queens College in New York, where he is a professor at the Center for the Biology of Natural Systems.

He said other diseases may be identified as medical officials continue reviewing results.

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The Paducah Sun

October 28, 1999

Bill would increase cleanup funds, Whitfield says

By Joe Walker
Sun Business Editor

First District U.S. Rep. Ed Whitfield is sponsoring a bill to provide what he described as better oversight and more money to clean up the Paducah Gaseous Diffusion Plant while better protecting workers who may face layoffs.

Introduced Wednesday by Whitfield and U.S. Rep. Ted Strickland, D-Ohio, the legislation would:

--Provide millions of additional dollars annually for cleanup at Paducah and its sister plant near Portsmouth, Ohio. The process involves sending money directly to the plants by removing it from the cumbersome federal appropriations process.

--Remove the plants from the jurisdiction of the Department of Energy's Oak Ridge (Tenn.) Operations office and establish a similar office exclusively for Paducah and Portsmouth by March 30. That move is designed to focus more DOE cleanup attention on the enrichment plants.

--Direct DOE to give plant production workers affected by layoffs or partial plant shutdown the first choice for jobs that become available in cleanup work. That section of the bill also covers continued training, pension and retiree health benefits.

"This legislation represents a strong, two-way effort to increase funding for cleanup of the Paducah and Portsmouth sites to put those funds more toward the actual cleanup and to better protect workers who may face layoffs in the future," Whitfield said. "It means extra money for extra cleanup and extra job security for the local workers."

Surcharges on the sale of enriched uranium produced by the plants and other budget sources have created a decontamination and decommissioning fund of about $1.6 billion. Under legislation privatizing plant operator USEC, the fund is set to expire in 2007.

Of the $1.6 billion, $240 million is allocated this fiscal year for cleaning up DOE's three enrichment plant sites. But Whitfield and other lawmakers have complained that $74 million is split by Paducah and Portsmouth and the rest, $166 million, goes to Oak Ridge, whose enrichment plant is closed.

"When $240 million is appropriated for cleanup at the three enrichment sites and Paducah gets only $37 million, that shows the need for a change," Whitfield said.

Under the Whitfield-Strickland bill, money would be automatically sent to the plants based on their enriched uranium production levels, rather than being tied up in the federal budgetary process.

He said congressional hearings on contamination at the Paducah plant suggest that because the money is allocated from the Oak Ridge Operations office, Paducah is slighted.

"The hearings we have held clearly show that Oak Ridge managers don't treat Paducah fairly," Whitfield said. He said a Paducah-Portsmouth operations office would focus more money and managerial attention on those plants.

The bill calls for a line-item appropriation to pay for the new operations office.

DOE officials have said a Paducah-Portsmouth operations office would be even more expensive by creating facilities and staff apart from Oak Ridge. Instead, they have pledged more time and money to the Paducah cleanup effort.

Earlier this fall, DOE assigned Dale Jackson as new site manager at Paducah and added two DOE support personnel.

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The Editorial Page

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Many schools using ineffective, untested drug, violence prevention programs

EDITOR:

October 5, a front-page article in your paper summarized a new statewide report on crime in Kentucky schools. To prepare the report, Eastern Kentucky University's new Center for School Safety compiled data from all school districts in Kentucky.

I am responding to your Oct. 7 editorial regarding this report in which you noted that most schools have responded aggressively to security concerns by locking doors, using metal detectors and employing security officers. You then asked a pertinent question: If 94 percent of the students are participating in drug and violence prevention programs, why are there 4,000 assaults, 25,000 fights and 10,000 crimes committed on school grounds?

The question, which you failed to ask, and which the report failed to cover was: What types of drug and violence prevention programs are being used in our schools? It is more important than ever that schools use a prevention program that has been proven to work.

Too many of today's prevention programs are based on hunches and guesses about what might work. While many programs may claim to be effective, very few have been documented to reduce the use of tobacco, alcohol and illicit drugs. Unfortunately, this means that many schools are using untested, outdated, or ineffective

IN OUR OPINION

October 28, 1999

DEMAND ACTION

Accountability the key to plant cleanup

A Senate hearing may have supplied the missing element in the Department of Energy's cleanup program at the Paducah Gaseous Diffusion Plant - accountability.

The most notable theme to develop in the Senate Appropriations Committee's energy and water development subcommittee hearing was the need for the DOE to stop shuffling paper and evaluating reports and move forward with the cleanup of massive environmental contamination at the plant site.

Kentucky's top elected officials - Gov. Paul Patton and U.S. Sens. Mitch McConnell and Jim Bunning - forcefully expressed their concerns about the pace of the cleanup. But they did more than wring their hands; they talked specifically of the consequences that could occur if the DOE fails, as Gov. Patton put it, "to do right by Paducah."

The energy agency and its private contractors have spent 10 years and $400 million without making any discernible progress in cleaning up or removing chemical waste and radioactive materials stored at the site. But the cleanup has been moved from the bureaucratic back burner now that Congress, reacting to allegations that over the past four decades plant workers were exposed to high levels of contamination, is zeroing in on DOE's performance.

Bunning described the agency's failures in blunt terms. "Not one contaminated drum has been removed," he said. "Not one ounce of spent uranium has been converted. And the plume of contaminated waste that includes PCBs continues to flow toward the Ohio River.

prevention programs and many dollars are wasted.

The Regional Prevention Center, a service of Four Rivers Behavioral Health, at 2850 Adams Street in Paducah, has been charged by the Commonwealth of Kentucky, Division of Substance Abuse, with developing programming to prevent alcohol, tobacco and other drug abuse. The center covers a nine-county region emphasizing youth substance-abuse prevention by focusing our efforts on science-based prevention programs. "Science-based" means that needs are determined (by survey) and a program is selected that best fits those needs. Follow-up surveys are performed to evaluate if those needs are being met.

In addition, the only programs used have been extensively evaluated in major federal studies and have been shown to dramatically reduce substance use. Although these programs promote drug education and awareness, the primary focus is on increasing psycho/social skills (interpersonal communication, self-esteem, coping with anxiety, dealing with shyness, initiating social contacts and assertiveness training). While these programs have not been tested regarding violence prevention, leading researchers agree that the programs have great potential in preventing violence.

Curriculum programs such as Botvin Life Skills, Project Alert, Creating Lasting Family Connections, Reconnecting Youth and Second Step that have the research data to back up their potential also take a great deal of time, energy, money and political will to implement. Serious policy change is required to go from stopgap and piecemeal efforts to the consistent use of science-based programs. Effective programming is not a quick fix. Real solutions take time.

"Something needs to be changed, and we cannot wait another day to do it."

It's clear that Kentucky officials will have to use the political equivalent of a big stick to ensure the federal government gets the message about what Bunning called the "betrayal" of the citizens of Paducah.

The energy department spent $400 million to produce a stack of reports on the Paducah site. It's quite capable of wasting more time and a great deal more of the taxpayers' money doing what agency officials call "preliminary analysis" of the contamination.

But Patton, McConnell, Bunning and 1st District Congressman Ed Whitfield are supplying some needed motivation for DOE officials.

During Tuesday's hearing, McConnell raised the possibility of taking away DOE's authority over the cleanup and giving oversight responsibilities to another federal agency. This is no idle threat: As one of the leaders of the Republican-controlled Senate, McConnell has the power to hold DOE accountable.

Patton said he is prepared to take the agency to court if it does not make significant progress on the cleanup. This is no idle threat, either: The DOE has a contractual obligation to the state of Kentucky to complete the cleanup by 2010. We'd like to see agency officials try to come up with a legal defense for a decade of near total inaction on cleaning up the plant site.

Congressman Whitfield is focusing on separating Paducah and Portsmouth, Ohio, from the DOE's Oak Ridge, Tenn., office, which has been less than aggressive in dealing with environmental problems outside Oak Ridge. Like McConnell, Whitfield can use legislation, if needed, to jerk the agency's chain.

The political drive to hold DOE accountable for the Paducah cleanup already may be concentrating the minds of some of the agency's bureaucrats. Elizabeth Huntoon, an assistant secretary at DOE, told the Senate committee she expects the "drum mountain" at the site to be cleaned up by the end of 2000 - two years ahead of schedule.

take time.

Six school districts in western Kentucky have joined efforts to receive a sizable grant to reduce youth substance use (McCracken, Graves, Livingston, Carlisle and Ballard counties as well as Mayfield Independent). They now provide proven prevention programs to their middle-school students. These schools are rising to meet the challenge. We encourage others to do the same because our children are at stake.

REBECCA McQUAGE
Site Administrator
Regional Prevention Center

Dog fighting, cockfighting cruel to animals, but boxing is legal sport

EDITOR:

Our government outlaws dog fighting and cockfighting as cruelty to animals. Yet, it sanctions boxing as a sport to beat people up. Under the law, it's called assault and battery. Legally, it's called a sport. Does our government have its head on straight?

R.H. GREEN
Paducah

WRITE YOUR REPRESENTATIVES

Here are the addresses and phone numbers of your officials in Washington:

KENTUCKY

U.S. REP. ED WHITFIELD
236 Cannon House Office Bldg.
Washington, D.C. 20515-1701
Paducah office: 502-442-6901
Washington office: 202-225-3115

U.S. SEN. JIM BUNNING
818 Senate Hart Office Building
Washington, D.C. 20510
Washington office: 202-224-4343

years ahead of schedule.

McConnell pointedly observed that this is remarkable news. "If that can be accomplished, it would be a visible sign of progress that I think everyone would applaud," he said.

The senator also said he would be watching to see if DOE meets its self-imposed deadline for cleaning up the contaminated drums.

Scrutiny and accountability are the keys to ensuring the DOE cleans up the uranium enrichment plant site and removes the environmental hazards that have threatened this area for far too long. The state's leaders must dog the bureaucrats' steps, and keep up the pressure after the media spotlight has shifted away from Paducah.

The Courier-Journal

Wednesday, Oct. 27, 1999 LOCAL NEWS

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SOME EX-URANIUM WORKERS SHOW SIGNS OF ILLNESSES LINKED TO PLANT

Tests find health problems

Patton asks senators for more Paducah cleanup money

By JAMES R. CARROLL, The Courier-Journal

WASHINGTON -- Some former employees of the uranium-enrichment plant at Paducah are showing signs of work-related illnesses, a doctor in charge of the testing program told a Senate panel yesterday.

Rep. Edward Whitfield, right, and Sen. Jim Bunning, left, supported health benefits for plant workers. Gov. Paul Patton is between them.
Associated Press Phot

"We have seen some, albeit limited, work-related illnesses among screenees to date," said Dr. Steven Markowitz, an occupational physician and professor at the Center for the Biology of Natural Systems at Queens College in New York. He is overseeing screenings of former workers at the government-owned Gaseous Diffusion Plant.

Also appearing yesterday was Kentucky Gov. Paul Patton, who asked senators for millions of dollars to help clean up radioactive and other hazardous waste at the plant.

"Now is the time for the federal government to do right by Paducah," Patton said.

Markowitz, the physician, pleaded with the Senate Appropriations Committee's energy and water-development subcommittee to increase spending on the screening program so more former workers as well as current workers may be included.

Patton asked the panel to seek $100 million in immediate additional spending and $200 million per year for waste cleanup. Department of Energy officials would not commit to a specific increase in cleanup spending, but sums that large appear unlikely to be proposed in the federal budget for the 2001 fiscal year.

Sen. Mitch McConnell, R-Ky., a member of the panel, who pushed for yesterday's hearing -- the third congressional hearing into Paducah in a little more than a month -- clearly was impatient with assurances by the Energy Department that the Paducah cleanup is getting on track.

"Mainly, what we want to see is progress," he said after the hearing.

Markowitz did not say how many cases of work-related illnesses have turned up.

But he cautioned that, because the screenings have been voluntary, the cases may not reflect the overall health of all roughly 15,000 living former workers from the government's three gaseous-diffusion plants, in Kentucky, Tennessee and Ohio.

MARKOWITZ, who is working with the University of Massachusetts at Lowell and the Paper, Allied-Industrial, Chemical and Energy Workers Union (PACE), said about 450 people have been screened in the past five months. All formerly worked either at Paducah or its sister plants in Piketon, Ohio, and Oak Ridge, Tenn.

He said that with the current funding of $1 million per year, only about 1,200 people can be screened each year, meaning a thorough check of eligible workers would take 12 years.

McConnell; Patton; Sen. Jim Bunning, R-Ky.; and Rep. Edward Whitfield, R-1st District, all worked with the Clinton administration last month to win congressional approval of additional money for testing, especially to include current workers, only to learn later that the money had already been committed to other purposes. Energy officials have promised to find money to expand the testing.

Markowitz said an increase to $5.8 million in the next fiscal year would allow 5,750 workers to be tested each year, and would pay for a state-of-the-art mobile device to screen for lung cancer.

The screening program looks for kidney and liver disease, chronic lung disease and hearing loss related to work at the plants. Markowitz pointed out, however, that the medical protocol for the screening was set before the presence of radioactive plutonium and neptunium at Paducah was revealed in August.

IN TESTIMONY about cleanup spending, Patton said Kentucky now estimates the cost of everything that needs to be done in Paducah at $2 billion -- about $800 million more than the Energy Department's current estimate.

The department agreed to a cleanup deadline of 2010, although it now admits such a schedule may not be practical, given budget constraints.

Patton complained that at the current rate of spending -- $37 million in fiscal 1999 and about $48 million in fiscal 2000 -- Paducah "won't be cleaned up in our lifetime."

McConnell agreed, saying that the agency has spent $400 million so far on cleanup, with little to show for it. He suggested that an independent regulator may be needed to ensure safety at Paducah and Piketon.

The senator pressed Carolyn Huntoon, the agency's assistant secretary for environmental management, on whether Congress could expect to see a proposal to increase spending for cleanup at Paducah.

"I DON'T know the exact number," Huntoon replied. "I know it does have an increase, but it's not as much money as we could use."

"Given all that's happened," McConnell said, "why don't you ask for what you need and see what happens?"

"OK," Huntoon answered.

But later, she pointed out that all of the Energy Department's cleanup programs will have to be covered by about $5.7 billion in fiscal 2001 -- the same amount as in the current fiscal year.

Based on that spending, which includes expensive items not related to cleanup, such as maintaining spent nuclear fuel at various sites, the Paducah environmental work may take until 2020, Huntoon said.

"If we get increased money, we can pull that (schedule) back," she said.

PATTON SAID that the Energy Department is in danger of defaulting on its cleanup agreement with Kentucky as early as 2001. He suggested the state might resort to the courts if the department fails to do more at Paducah.

Bunning, who attended the hearing but is not on the panel, told members that "it is time to provide the resources to clean up this mess."

"The workers in this plant have been betrayed," he said. "The community which supported this facility has been betrayed. They trusted the U.S. government."

Bunning and Whitfield said they support health benefits for plant workers who need them.

Workers' union President David Fuller told the Senate panel there is ample precedent for such compensation. Benefits already are offered to other workers and military personnel who were involved in the nuclear-weapons industry and weapons tests, he said.

David Michaels, the Energy Department's assistant secretary for environment, safety and health, said the administration was looking at a compensation proposal that may be offered as legislation next spring.

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The Paducah Sun
10/25/99 – P. A5

Paducah man living near plant gets city water

■ **George Benton** *has said that the ground water that feeds his well has been contaminated, possibly by discharges from the Paducah Gaseous Diffusion Plant.*

Associated Press

George Benton finally got results in his three-year campaign to have his home hooked up to the local water system.

The ground water that feeds his well has been contaminated, he said, possibly by discharges from Paducah Gaseous Diffusion Plant.

But on Friday, technicians connected city water to Benton's home, a day after he complained to the Site Specific Advisory Board, a citizen panel that makes recommendations about the diffusion plant's cleanup. The board agreed that Benton should get water immediately.

"Hopefully, I stirred up enough stink," Benton said. "Now we'll be able to take a bath and wash out clothes and we won't be afraid to get in it any more. It's a pretty good feeling."

The U.S. Department of Energy began running waterlines to homes around the plant after discoveries in 1988 that solvents and radioactive technetium-99 released from the plant were showing up in residential wells. The government insists the plant has not fouled Benton's wells.

Under the department's policy, anyone within a designated area got free water, even if the well water tested OK. Recently the department said everyone on Bethel Church Road had been supplied with free city water. But Benton knew better.

To qualify for free city water under the Energy Department's policy, recipients must agree to cap any existing wells and never drill other wells on the property. That has worked for the 100 or so customers whom the Energy Department is paying to serve.

But according to the department and the West McCracken Water District, Benton's landlord, Elliott Rafferty, was reluctant to give up the right to drill a well anywhere else on his property, which extended far beyond the area where the underground water was tainted.

The department's policy appeared to have been waived when technicians hooked up the water.

Benton's frustration had grown over the years as city waterlines came within sight of the property line, then within 50 feet of his home about a month ago.

He and his wife, Joyce, say they have unexplained illnesses and said their daughter, Lesley Benton Rushing, who also lives on the farm, suffered miscarriages in 1997 and 1998.

Bill Tanner, West McCracken Water superintendent, thinks the recent controversy about the diffusion plant's pollution had distracted the Energy Department from giving the go-ahead to extend water service to Benton's home.

Benton said the health department condemned the drinking-water well near his house years ago and he has been drawing water from another well near a hog barn. "But they tell me it's just as bad," Benton said.

Benton, who has lived on the farm for about 12 years, said he and his family drank the water until about three years ago. Then he started buying water at Wal-Mart.

Over the years, people working for the government have tested his well water. Benton said they told him they found traces of plant contaminants, but not at levels that would make it unsafe to drink.

"I don't believe a thing those guys tell me," he said.

But Steve Wyatt, an Energy Department spokesman, said tests on Benton's well had shown "no detectable levels of contaminants." The testing supervisor with the McCracken County Health Department could not be reached for comment.

The Editorial Page

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The Paducah Sun

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IN OUR OPINION

October 22, 1999

CLEANUP SCANDAL

DOE report finds indifference, inertia

A report from a U.S. Department of Energy investigative team describes inexcusable and possibly even scandalous failures by the officials in charge of the environmental cleanup at the Paducah Gaseous Diffusion Plant. The 55-page document leads to these main conclusions: 1) Someone must be held accountable for wasting the better part of 10 years and $400 million in taxpayers' money; and 2) The cleanup must now proceed as quickly as possible, with full public disclosure of its progress.

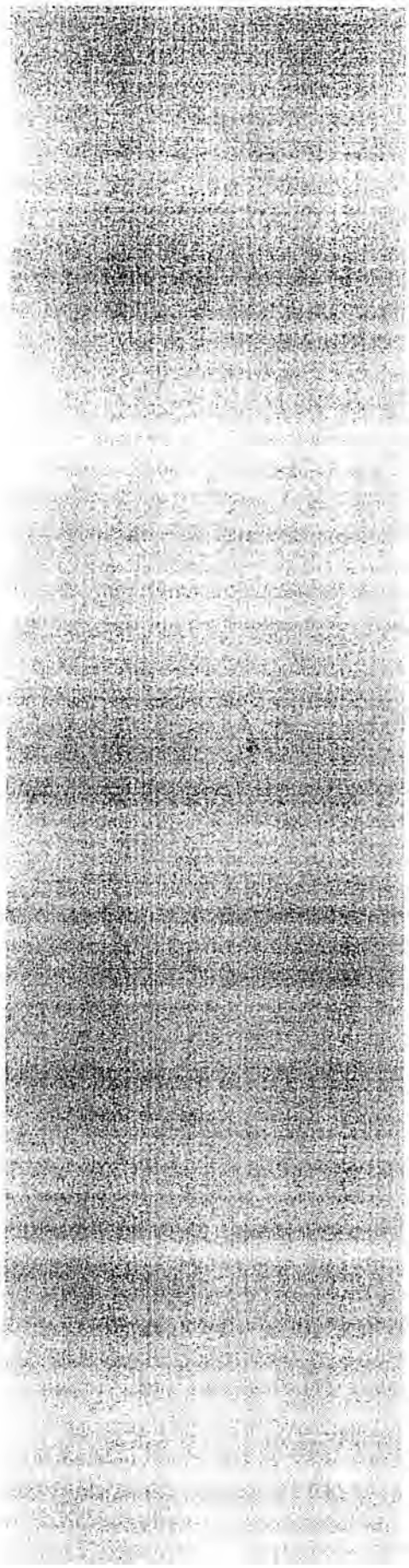
Although the federal government has spent nearly $400 million since 1989 on cleaning up the plant site, environmental operations there apparently were not scrutinized by top DOE officials until allegations surfaced this summer that workers had been exposed without their knowledge to high levels of radioactive contamination.

Ironically, the troubling allegations about past lapses in plant safety, which are contained in a lawsuit filed against two former plant operators, have been eclipsed somewhat by the details emerging from investigations of the more recent cleanup operation.

It now appears the cleanup itself is a scandal - an absurdly slow and wasteful process that has, at times, been characterized by virtual indifference to health and environmental concerns.

The appearance is that the so-called cleanup has amounted to a sustained and costly effort to blow smoke to obscure the array of contamination problems at the facility. If this is not the case, the burden is on the DOE and its private contractor, Bechtel Jacobs Co., to prove otherwise.

Investigators highlighted a number of problems in



the management of areas at the plant under the direct control of the Department of Energy. The most glaring was the totally inadequate response to the finding that an uncontrolled nuclear reaction could occur where highly radioactive materials are stored.

Although the chances of a "criticality" accident occurring are very small, it's inexcusable that officials in charge of the cleanup did not immediately move to eliminate the risk. If material at the plant site "goes critical," it could pose a serious threat to the health of workers and people who live nearby.

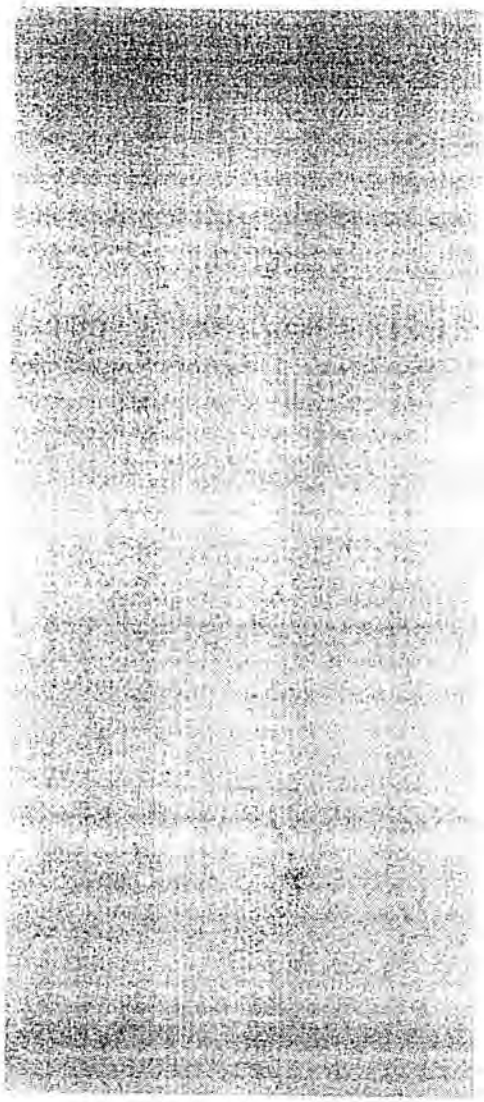
Investigators with the DOE said the criticality risk was first identified in 1997, but that, until recently, it received little attention from officials overseeing the cleanup.

This failure - and others detailed in the DOE report, including the lack of progress in cleaning up the "drum mountain" of hazardous and radioactive waste - reek of indifference and bureaucratic inertia. The federal government simply should not tolerate failures of this nature on a project that costs so much money and that involves issues of public health and environmental protection.

The DOE report also noted that a lack of clarity in communications with the public had contributed to perceptions that DOE and Bechtel Jacobs were withholding information.

It's certainly true that most people in the Paducah area were unaware that the plant was handling highly radioactive materials that were shipped there from other nuclear facilities. In fact, many plant workers weren't aware of the existence of transuranics such as plutonium and neptunium in the plant environment.

This proves there was a serious communication failure - one that has cost the DOE and its contractor a great deal of credibility with the public. That credibility must be recovered, if the government is to persuade plant workers and the facility's neighbors that it is serious about cleaning up the contamination and keeping the public fully informed about the cleanup operation.



Another disturbing finding from the report is that Bechtel Jacobs did not train its workers to deal with contamination from transuranics. This is a large oversight, given the degree of concern that has arisen about the presence of neptunium and other highly radioactive substances at the plant.

Many heads nodded in Paducah when David Michaels, an assistant secretary at the energy department, summed up the report by saying "there is plenty of blame to go around" for the mistakes, oversights and willful omissions the report identifies.

It's refreshing to find federal officials who are willing to accept responsibility for a disaster of this magnitude. However, it is not enough for the DOE to admit that its officials and its contractors aren't getting the job done in Paducah. Agency officials must see that progress occurs by cutting through the regulatory red tape, lighting a fire under Bechtel Jacobs (or replacing the contractor, if necessary), and holding their own administrators accountable for the pace of the cleanup.

We believe the DOE can get the job done, but it must find the will to do it. That's what's been lacking in the cleanup program - the will and the motivation to protect the public interest.

-Letter and E-Mail Guidelines-

The Paducah Sun welcomes letters and E-mail from readers. Published letters must include a phone number, signature and address for purposes of verification (we will not publish your phone number or street address, but we will call you to verify that the letter or message we received is yours). All are subject to editing for clarity and brevity. We try to give broad leeway to writers, but obviously we will not publish communications that strike us as possibly libelous, unduly personal, mean-spirited, or racially inflammatory. In addition, we ask that you adhere to the following guidelines:

First - sign your name on any written communication. Don't send a photocopy of a letter or of your signature.

Second - include your complete address and telephone number where we can reach you in the daytime.

Third, - be brief.

Fourth - except in unusual circumstances, don't ask us to withhold your name. The object of all this is to give readers a forum for full and fair discussion of public issues. Sometimes we have not enforced one or another of these rules where no harm seemed to result, but writers who adhere are those most likely to be published. Letters are published pretty much on a first-come, first-serve basis. We cannot guarantee publication dates.