PADUCAH GASEOUS DIFFUSION PLANT
SITE SPECIFIC ADVISORY BOARD

padssab@apex.net

www.oro.doe.gov/pgdpssab/

2000 McCracken Boulevard • Paducah, Kentucky 42001 • (270) 732-9010

Co-Chairs

Mark Donham
Vicki Jones

Board Members

Kit Atkinson
Nola Courtney
Edward Duff
Angela Farmer
David Fuller
Judy Ingram
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 of Waste Management
(Kentucky)

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

Jimmie C. Hodges
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.

Final agenda for the August 19, 1999, meeting:

- Call to order/Discussions
- Minutes
- Public Comments and Questions
- Information Handouts
- Program Status Updates
  - EM&EF Projects
  - Vortec—Draft Environmental Assessment
  - Depleted UF_6
  - Update on Former Worker Health—Jim Chesnut
- Sitewide Cumulative Effects
- Programmatic Presentations
  - WAG 6—Gregory Waldrop
  - ITRD
  - Response to requests for clarification of *Paths to Closure*
  - Overview on Scrap Metal Engineering Evaluation/Cost Analysis
- SSAB Subcommittee Reports
  - Community Relations—Judy Ingram
  - Consultant—Bill Tanner
  - Membership—Nola Courtney
- SSAB Recommendations Status—Jimmie Hodges
- Administrative Issues for the Board
  - Co-chair Status/vote on proposed by-laws change
  - Review of the SSAB Draft Workplan
  - Tours/September 16,1999 SSAB meeting/tour
  - Financial Update
  - National SSAB chairs meeting

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SSAB Meeting Minutes
Paducah Site Specific Advisory Board
August 19, 1999

The August 19, 1999, Paducah Site Specific Advisory Board (SSAB) meeting took place at the Paducah Information Age Park Resource Center at 5:30 p.m.

The following board members were present: Kit Atkinson, Nola Courtney, Mark Donham, David Fuller, Judy Ingram, Vicki Jones, Merryman Kemp, Ronald Lamb, Linda Long, Doug Raper, Craig Rhodes, Rosa Scott, and Greg Waldrop. *Ex Officio* members present were Todd Adams, Carl Froede, Jimmie Hodges, Tuss Taylor, and John Volpe. The facilitator present was Steve Kay.

The United States Department of Energy (DOE) federal coordinator present was John D. Sheppard. Brian Baker, Gaye Brewer, and Todd Mullins, of Kentucky Division of Waste Management (KDWM) were present.

Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Don Bennett, Charlene Brown, Robert Cannon, Jim Chesnut, Ellen Chesnut, Brad Darnall, Phillip Foley, Bruce Gardner, Kristi Hanson, David Hutcheson, Chuck Jenkins, Norm Jetta, Stan Knaus, J. Edgar Lowry, Dave Massey, Jimmy Massey, Steve Meiners, Ernie Mitchell, Walter Perry, A.B. Puckett, Vivian Puckett, Jim Roshan, Eric Scott, Shirley Speer, Debbie Wattier, and Corinne and Ernest Whitehead.

Agenda

Steve Kay called the meeting to order and asked if tehre were any modifications to the agenda. The agenda was amended to allow time for discussion of current issues. It was agreed that administrative issues would be held until next meeting if time did not permit. The modified agenda was approved.

Facilitator's Orientation

Steve Kay reviewed highlights of the SSAB bylaws. Kay said the facilitator's role is to help the board stay on the agenda, to reach closure on issues, and to check for consensus when there are decisions to be made. His role also includes making sure all views are heard and valued until a decision is reached.

Meeting Minutes

Minutes from the July 15, 1999, were amended to clarify a statement by Mark Donham in the Sitewide Cumulative Effects section. It was suggested the tapes be reviewed and that section expanded. The approval of the minutes was held until the September meeting.

Public Comments from Guests

There were no comments made during this period.

Information Handouts

Hodges gave an update on allegations made in a recent lawsuit. He explained that DOE had begun a two-phase investigation. The first phase will include health, safety issues and environmental compliance from 1990 forward. The second phase will focus on legacy issues from pre-1990. He said congressional hearings have been proposed. He noted that he had requested additional funding for this investigation.

Rhodes asked if statements made by Dr. Cochran (one of the plaintiffs in the suit) were true. Hodges stated that because of the on-going investigation, it is difficult to answer what is true or not true. Hodges said the truth will come out. Rhodes said the report and allegations are public now. He said that Dr. Cochran has international credentials. Little Bayou Creek was discussed and Hodges said the investigation team will do testing and make determinations. Rhodes asked if it is true that there is a tank car with radioactive materials sitting at the plant. Hodges said yes, there is a tank car, and that more determinations would be made regarding its radioactivity.

Waldrop asked if anyone was surprised by the new allegations. Taylor said they were not a surprise to the state. Froede said some of the allegations were a surprise to EPA, and although EPA would do additional investigating, but did not see an imminent risk. Donham said the allegations say that the figures in Annual Environmental Report are wrong and these figures have been used by DOE as a substitute for doing a sitewide EIS cumulative effects analysis.

Rhodes made a recommendation that the board invite Dr. Cochran to come and address the board. The proposal was approved. Rhodes said he will make the contact.

Donham proposed that all documents requested by the investigation team be made available to the board. After discussion, the board approved a proposal to ask DOE for an annotated list of everything the investigation team is reviewing.

Donham asked about missing documents referred to in a Louisville Courier-Journal article. Hodges said those appendices are now available. Jimmy Massey (Bechtel Jacobs Company LLC) commented on how the data in those appendices were used to help reach the Record of Decision (ROD) for the North/South Diversion Ditch. Waldrop asked if the State would be doing additional investigations. Taylor said they would increase the frequency of their monitoring. Volpe answered that Little Bayou Creek will be studied more intensely. Rhodes asked if the public should be concerned about radioactivity released from the plant. Volpe said there was radioactivity, but nothing that posed an imminent health hazard. Volpe disagreed with statements quoted by Rhodes from a document prepared by Dr. Cochran that state lab tests were in error. Volpe also said he would be glad to let Dr. Cochran come into his laboratory and check the calibration of his instruments.

Froede said that he could help get EPA more involved in the situation if DOE asked. Taylor added that the state also will do additional sampling of residential wells. Sheppard said people could call DOE as well if they wanted to request their wells be sampled. Waldrop said his concern is whether EPA would be checking sampling results. Hodges said that was a good comment and the he had suggested splitting samples as much as possible. Lamb said that six years ago he had wanted Big Bayou Creek posted, but some of the people who own land along it did not want it posted.

Donham asked Hodges where the reactor tails had come from. Hodges said they did not come directly from Hanford, but went through chemical separations before coming to Paducah. Donham asked if there are good records. Hodges said there are relatively good records that would be looked at during the investigation.

Corinne Whitehead (citizen) suggested that Fernald court records be checked. She said the records state that a large pile of plutonium was received from Paducah. Kemp asked if those records could be located.

Rhodes asked if there is a ditch by Drum Mountain and if it is marked on the outside. Steve Meiners (Bechtel Jacobs Company) clarified the use of the terms "on-site" and "off-site," and noted that the North/South Diversion Ditch is marked inside the security fence, Little Bayou is posted outside and Big Bayou is not posted. Hodges said off-site posting decisions were made based on risk. Vivian Puckett (citizen) said Oak Ridge DOE officials have said there is contamination. Hodges said there is no denial that there is contamination; it is an issue of risk. Puckett said that DOE is not concerned with public health. Hodges disagreed, noting that he lives in the area.

Donham said DOE does not address cumulative risk. A considerable discussion about risk followed. Donham stated that the SSAB has requested a specific presentation on the risk assessment for WAG 6 by Mr. Bonzcek, but that when Mr. Bonzcek made the presentation, he refused to explain the risk assessment on WAG 6, but instead gave a general overview of risk. Board members said they did not feel that presentation gave them sufficient detail and asked for more information and another presentation. Taylor said he would see if a state risk assessor could come to the board's October meeting to make a presentation. Board members questioned why the contract for risk assessments at the Paducah plant was sole sourced, what the criteria for making assessments was, and whether anyone was checking the assessor's accuracy. Froede said that the risk assessor acts in accordance with EPA requirements and that all of his calculations are checked.

Donham brought up a letter on file at the Paducah Public Library from NRC to USEC concerning safety allegations at the plant. Hodges said the issue does not involve DOE operations, but noted the public makes no separation of NRC, USEC, and DOE.

Kristi Hansen (citizen) suggested that the Board ask Bill Richardson to come address the board. Waldrop proposed that the Board rather than DOE invite Bill Richardson to address the board. Proposal accepted by consensus. The co-chairs will draft the letter to Richardson.

Waldrop made a proposal to have a risk assessor to come to address the board. He said he wanted someone who can give background information, but also can specifically address WAG 6, and suggested sending members a written introduction of what the risk assessor is going to address. The proposal was approved by consensus. Kemp suggested a workshop on risk assessment. Taylor said he would provide a fact sheet to be distributed to board.

Update on Former Worker Health

Jim Chesnut, representing PACE (the union for most hourly workers at the plant) explained how the study was started and that former employees are being tested at local Prime Care Centers. The union also has workshops to help people fill out paperwork before the health examination. Fifty-four people have been screened to date. He explained the different tests and screenings and that participants felt the examinations were thorough. He said screenings would start in Mayfield and Murray soon. Corinne Whitehead said people are afraid of retribution and might be reluctant to participate. Chesnut gave assurance that no one need be concerned about coming for screenings.

Vortec Draft Environmental Assessment

Donham proposed the comment period be extended 30 days. He said he does not think this Environmental Assessment (EA) is well-written. He questioned whether the "No Action" recommendation was properly considered and how much was paid for this EA. He said his job involves evaluating EAs and this is not a good EA. Sheppard said it would

be helpful if a subcommittee would bring recommendations and comments back to the board. Mark Donham, Craig Rhodes, and Vicki Jones volunteered for this subcommittee.

Overview on Scrap Metal Engineering Evaluation/Cost Analysis

David Fuller expressed concern over what is to be released to public as part of a scrap metal recycling program. Fuller said free release had no control over end use and proposed that free release be prohibited until there are federal regulations. After discussion, the board then passed the following Recommendation:

"The Paducah SSAB opposes any plan for 'free release' of and/or unrestricted end use of radioactively contaminated metals into commerce, absent federal regulations on this issue."

During discussion, Kit Atkinson asked for more information on the scrap metal. Volpe said that if DOE releases material, it meets guidelines prohibiting the release of contaminated materials. Hodges assured the board that the EA/CA specifically did not allow for the free release of contaminated materials. Ingram asked if materials could be released for use in nuclear applications and facilities only. Fuller said that such a restricted end use would be acceptable. It was decided to further discuss the Scrap Metal EA/CA at the September meeting.

Community Outreach Subcommittee

Ingram proposed to create a comprehensive mailing list for stakeholder notification and other board public outreach efforts. Proposal approved by consensus. Recommendation to have student memberships was discussed. This will be discussed further at next meeting. Proposal was made to have SSAB logo and theme developed by professionals. Proposal approved by consensus.

Donham voiced concern that meetings of subcommittees were unadvertised and could therefore violate the Federal Advisory Committee Act. Sheppard reported that Fred Butterfield from DOE Headquarters had said there is no problem because subcommittees meet and bring back ideas and suggestions to the full board. At Donham's request, Sheppard agreed to get further guidance on public notification requirements for subcommittees.

Membership Subcommittee

Courtney reported that four current members whose terms have expired (Courtney, Fuller, Jones, and Waldrop) want to stay on the board, with the possible exception of Fuller, who had indicated he might want a different representative from the union. He said he would make a decision by the September meeting. A proposal was made and approved to retain current board membership. Courtney said she would draft a letter to members who miss more than one meeting to remind them of the board's policy regarding attendance.

Wag 6

No comment.

ITRD

Comment was made to ensure board members are made aware of Innovative Treatment Remediation Demonstration (ITRD) meetings. Donham was concerned that the board was not told of the most recent ITRD meeting. Sheppard said it was his fault and the board would be informed of future meetings.

Chairs Meeting

Sheppard announced the upcoming SSAB Chairs Meeting at Hanford and urged the board to send a representative. Donham expressed his ongoing concern about the chairs committee being in compliance with FACA, and what the purpose of this committee is. Donham also expressed his reservations about participating in these meetings. Jones said she would check into the possibility of her making the trip.

Adjournment

The next meeting will be held September 16, 1999. It will begin with a tour of the Surface Water Operable Unit, beginning at the DOE Site Office at 4:00 p.m. The meeting will follow in the DOE Site Office conference room at 6:00 p.m.

The meeting was adjourned.

Saturday, July 17, 1999

DOE meeting July 27 at Info Age Park

The U.S. Department of Energy will hold a public workshop July 27 from 5:30 p.m. to 8 p.m. at the Paducah Information Age Park Resource Center.

Information will be given on environmental cleanup at Paducah Gaseous Diffusion Plant; plans for converting depleted uranium; developing environmental technologies; status of waste treatment and disposal; and how local subcontractors and suppliers might get involved.

Officials from the Paducah DOE Site Office and its contractor, Bechtel Jacobs Co. LLC, will answer questions. Other participants will be the Paducah Site-Specific Advisory Board; state Environmental Protection, Fish and Wildlife, and Radiation Health and Toxic Agents agencies; and the Agency for Toxic Substances and Disease Registry.

Registration is not required. Call DOE's John Sheppard at 441-6804 for information or special needs.

DOE Public Workshop

Paducah Information Age Park Resource Center

Tuesday, July 27 5:30 - 8 p.m.

The U.S. Department of Energy will provide information on:

The environmental cleanup at the Paducah Gasepus Diffusion Plant.

Ideas being considered for the conversion of depleted uranium.

Plans and progress for waste treatment and disposal.

New environmental technologies being developed.

The event is free.
No registration is required.

For information, please call John Sheppard at (270) 441-6804

TIGER BY THE TAIL

One of the largest groundwater contamination plumes in captivity is located in McCracken County. The question is, *"What will we do with it?"*

--- YOU CAN HELP DECIDE! ---

DOE PUBLIC WORKSHOP

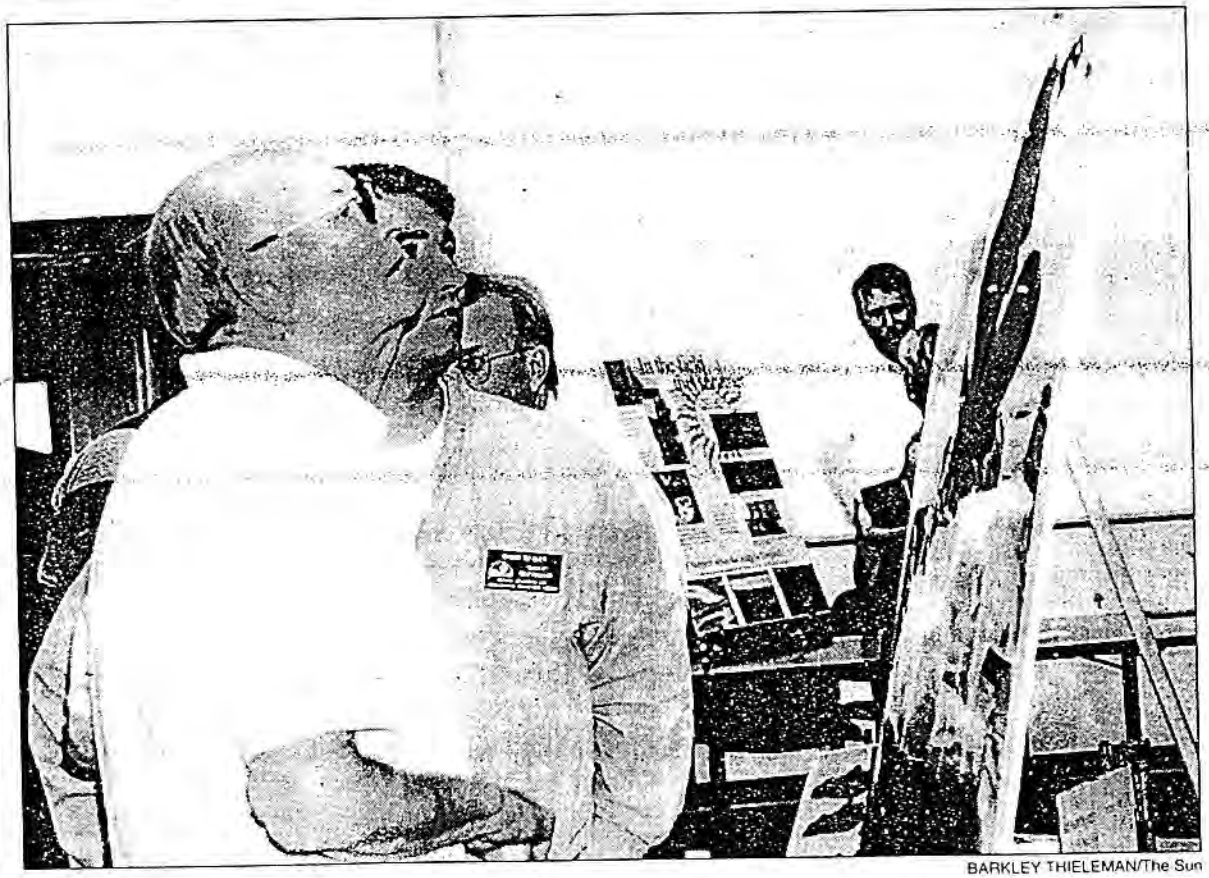
Paducah Information Age Park
Resource Center

Tuesday, July 27

5:30-8:00 p.m.

U. S. Department of Energy's
Paducah Site Specific Advisory Board

For additional information, please contact Shirley Speer at 270-462-2550 or visit our web page *http://www.oro.doe.gov/pgdpssab/*



BARKLEY THIELEMAN/The Sun

Chart checkers: J.C. Watkins (left) of Grahamville looks at a groundwater contamination chart while Brian Bigley of the Kentucky Division of Waste Management explains the map at a Department of Energy public workshop about the Paducah Gaseous Diffusion Plant. The session was held Tuesday at the Information Age Park Resource Center.

U.S. Department of Energy
PUBLIC NOTICE

Draft Environmental Assessment for Vortec System
Opportunity for Public Comment — August 7 to September 7, 1999

In accordance with the National Environmental Policy Act (NEPA) of 1969, the U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA) to evaluate the potential impacts from construction and operation of a demonstration facility known as the Vortec Corporation Cyclone Melting System at the Paducah Site in Paducah, Kentucky. This EA has been revised based on comments received on the previous version distributed March 20, 1998. The public is invited to comment on the draft EA from August 7 through September 7, 1999.

The EA was prepared in accordance with the President's Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Parts 1500-1508) and DOE NEPA Implementing Procedures and Guidelines (10 CFR 1021). With the revised EA, DOE evaluates the capability of the Vortec system for treating a portion of the low-level radioactive, Resource Conservation and Recovery Act (RCRA) hazardous, and polychlorinated biphenyls (PCB) mixed (radioactive, PCB, and/or RCRA-hazardous) wastes stored at the site. These wastes mainly include contaminated soils. The Vortec system would use a glass-making technology, known as vitrification, to melt wastes into a solid product that will meet the land disposal requirements of RCRA.

Based on the impacts analysis of the EA, DOE will determine whether to issue a Finding of No Significant Impact (FONSI) for the proposed evaluation of the Vortec system or prepare an Environmental Impact Statement (EIS), which would further study the project's impact to human health and the environment.

Written comments, or requests for information should be directed to:

W. David Tidwell
U.S. Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, KY 42001
Phone: (270) 441-6807
Fax: (270) 441-6801

The draft EA is available for review at:

DOE Environmental Information Center
West Kentucky Technology Park
Kevil, KY 42053
7:30 a.m. to 4:30 p.m. Monday - Friday
Or by appointment
(270) 462-2550

Paducah Public Library
Reference Desk
555 Washington St.
Paducah, KY 42003
(270) 442-2510.

DOE Media Advisory

August 9, 1999

NEWS MEDIA ADVISORY

DOE PUBLIC MEETING TO BE HELD IN WEST PADUCAH TONIGHT

At the request of Secretary of Energy Bill Richardson, Dr. David Michaels, DOE Assistant Secretary for Environment, Safety and Health, is visiting Paducah today to tour the plant and meet with workers and the public. His visit is in response to concerns raised about past activities at the Paducah Gaseous Diffusion Plant.

At 7:00 p.m. (CST) tonight, Monday, August 9, 1999, a public meeting will be held at the Heath High School Cafeteria, located on 4330 Metropolis Lake Road in West Paducah. The school is approximately 10 miles west of Paducah near the Barkley Regional Airport and approximately one mile north of the Highway 60 intersection.

For more information, contact Steven Wyatt, DOE Public Affairs, at (502) 441-6830.

-DOE-

DOE Media Advisory

August 9, 1999

NEWS MEDIA ADVISORY

David Michaels, U.S. Department of Energy (DOE) Assistant Secretary for Environment, Safety and Health, will conduct a media availability session at 5:00 p.m. (CST) today. Michaels is visiting Paducah today at the direction of Secretary Richardson to meet with workers and the public. Michaels will be joined by Leah Dever, Manager of the Department's Oak Ridge Operations, and Jimmie Hodges, DOE Paducah Site Manager.

The press availability will be held at the DOE Site Office, located at 5600 Hobbs Road adjacent to the Paducah Gaseous Diffusion Plant. This building is located approximately 12 miles west of Paducah near Highway 60 in western McCracken County.

For more information regarding this event, please contact Steven Wyatt, DOE Public Affairs, at (270) 441-6830.

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Plant board to meet Thursday

The Site Specific Advisory Board for the Paducah Gaseous Diffusion Plant will conduct its monthly meeting at 5:30 p.m. Thursday in rooms 126 and 127 of the resource center at Paducah Information Age Park, 2000 McCracken Blvd.

The board serves as an advisory group to the Department of Energy at the plant and is chartered under the Federal Advisory Committee Act. Meetings are open to the public; board members said area residents are encouraged to attend. For more information, call Shirley Speer at 462-2550.

PADUCAH GASEOUS DIFFUSION PLANT (PGDP)
SITE SPECIFIC ADVISORY BOARD
ENVIRONMENTAL MANAGEMENT PROJECT UPDATES
August 19, 1999

1. PROJECT: Waste Area Groups 3, 8, 28 and Data Gaps

Summary: Current work on Waste Area Groups 3, 8, and 28 has been combined into one project. Remedial Investigations will be done on WAGs 3 and 28. A Site Evaluation will be done on WAG 8. In addition, this project includes a 'Data Gaps' investigation to collect groundwater and subsurface soil samples to supplement existing data.

WAG 3 includes three burial grounds within the plant security fence, in the western section: C-747 Contaminated Burial Yard (Solid Waste Management Unit/SWMU 4), C-746-F Classified Burial Yard (SWMU 5) and C-747-B Burial Yard (SWMU 6). The concern at WAG 3 is potential contributions to groundwater contamination from the content of the burial grounds: natural and slightly depleted uranium, technetium-99 (Tc-99), magnesium fluoride, uranium-contaminated solid waste, security-classified weapons components, radionuclide-contaminated scrap metal, and slag from nickel and aluminum smelters.

WAG 8 includes: SWMUs 82-85, which are the plant electrical switchyards (C-531, C-533, C-535, and C-537), as well as the C-340 Reduction and Metals Facility, which is inactive and is part of the Decontamination and Decommissioning program. The concern at WAG 8 is similar to WAG 28, but the Site Evaluation will first determine whether contaminants have been released.

WAG 28 includes SWMUs 99, 183, 193, 194, which are locations related to the 1950s construction of the plant, including the C-745 Kellogg Building Site, the McGraw Underground Storage Tank, McGraw Construction Facilities, as well as Area of Concern 204 (potential construction debris area). The concern being addressed at WAG 28 is potential contributions to groundwater contamination.

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Status:

- Remedial Investigation and Site Evaluation field work for WAGs 8 and 28 continued in July 1999, and is on schedule for completion in mid- to late-summer 1999. Some field work for WAG 3 was begun in April 1999, with additional field work initiated in June 1999. The final WAG 3 field work is projected to begin in the early fall.
- Upcoming regulatory documents will be: the Draft (D1) Remedial Investigation Report for WAG 28, scheduled to be issued to regulatory agencies in January 2000; the D1 Site Evaluation Report for WAG 8, June 2000; and D1 Remedial Investigation Report for WAG 3, August 2000.

2. PROJECT: Waste Area Group 22, SWMU 2

Summary: SWMU 2 is the C-749 Uranium Burial Ground in the west-central portion of the plant.

The SWMU 2 Feasibility Study (September 1998) presented four potential remedial alternatives: 1) No further action other than: continued groundwater monitoring, current institutional controls, and implementation of deed restrictions; 2) In-situ containment with soil cap and subsurface barriers; 3) In-situ containment using low-pressure grout injection with a cap; and 4) Excavation of waste and soils.
The preferred remedy, for DOE, in the D1 Proposed Plan (October 1998) for SWMU 2 is the 'No further action' option. The Kentucky Department for Environmental Protection considers excavation to be the only acceptable remedy.

Status:

- A revised (D2) Proposed Plan is expected to be issued within 1 or 2 months of the approval of the PGDP Land Use Control Assurance Plan.
- A final (D3) Proposed Plan and D1 Record of Decision could then be issued during 2000.

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3. PROJECT: Waste Area Group 22, SWMUs 7&30

Summary: This project includes the investigation of the C-747-A Uranium Burial Ground and C-747-A Burn Area in the northwest corner of the plant.

The D2 Feasibility Study for SWMUs 7 & 30 was issued to regulatory agencies for review in November 1998 and proposed four remedial alternatives: 1) No action; 2) Limited action (installation of additional monitoring wells and long-term groundwater monitoring); 3) Soil cover and groundwater monitoring with additional monitoring wells; and 4) Surface soil removal and groundwater monitoring with additional monitoring wells.

Status:

- The Environmental Protection Agency Region 4 has given conditional approval of the D2 Feasibility Study.
- The Kentucky Department for Environmental Protection approved the D2 Feasibility Study on May 3, 1999.
- Information from this Feasibility Study will be incorporated into the Burial Grounds Operable Unit project.

4. PROJECT: Northwest/Northeast Plume Groundwater Systems

Summary: Approximately 394 million gallons of groundwater water have been treated through July 1999 at the Northwest Plume Groundwater Treatment Facility since operations began in September 1995. The facility operates under a 1993 Record of Decision to contain a high contamination zone of TCE and Tc-99. Approximately 213 million gallons of groundwater have been treated through July 1999 via the Northeast Plume system since the facility began operations under a Record of Decision in February 1997. The facility operates under a 1994 Record of Decision to contain a high contamination zone of TCE.

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Status:

- 9.5 million gallons groundwater were treated at the Northwest System during July 1999, with the facility operational 98.5% percent of the time.
- No groundwater was treated at the Northeast System during July 1999.
- The Northeast Plume system was shut down on June 25 to enable USEC to conduct maintenance on the C-637-2A cooling tower lines. Maintenance is expected to be completed by September 1, 1999.

5. PROJECT: Lasagna™ Soil Remediation at SWMU

Summary: Lasagna™ is a soil remediation technology already demonstrated at PGDP by DOE and industry partners (Monsanto, DuPont, General Electric), and then selected to reduce TCE levels in soil at SWMU 91 under a 1998 Record of Decision. SWMU 91 is an area of approximately one acre on the west side of the plant once used to drop test empty DUF6 cylinders. Lasagna™ is an in-situ technology that uses buried electrodes to move water through soil, picking up contaminants. The water passes through buried treatment zones that degrade the TCE.

Status:

- Bechtel Jacobs Company awarded a subcontract February 12, 1999, to CDM Federal for the design, construction, and operation of the Lasagna™ treatment system at SWMU 91. D1 Remedial Design Report, Remedial Action Work Plan, and Construction/Quality Control Plan were issued to regulators on May 18, 1999. The state has approved these documents.
- The D1 Operation and Maintenance Plan was issued June 3, 1999.
- Construction of the treatment system began the first of this month, with operations scheduled to begin in October 1999.
- The system is expected to operate for approximately 2 years in order to achieve targeted clean-up levels.

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PROJECT: Groundwater Operable Unit/WAG 6

Summary: WAG 6 includes five SWMUs near the C-400 Chemical Cleaning Facility, which is still in operation, and leased by DOE to USEC, Inc. Past operations at the facility resulted in TCE and Tc-99 groundwater contamination. Use of TCE for cleaning equipment was ended in 1993. Following the completion of the WAG 6, 27 and 28 Remedial Investigations, all data will be used to develop a Feasibility Study for the Groundwater Operable Unit, which includes the groundwater plumes themselves as well as the primary sources of TCE and Tc-99 groundwater contamination. Following this Feasibility Study, a Proposed Plan and Record of Decision for the selected remedial action will be developed. The selected remedial action will be designed and implemented after the ROD is signed.

Status:

- The D2 WAG 6 Remedial Investigation Report was submitted to the U. S. Environmental Protection Agency Region 4, State of Kentucky and stakeholders on May 7, 1999.
- Comments from the State of Kentucky were received from their review of the Feasibility Study Workplan for the Groundwater Operable Unit at the Paducah Gaseous Diffusion Plant. Resolution of the comments received and submission of a D2 version of the work plan is pending.
- The WAG 6 Treatability Studies reports, which evaluate Surfactant Flushing and Chemical Oxidation of the Regional Gravel Aquifer, were issued in February 1999. The information obtained from these studies will be incorporated in the Groundwater Operable Unit Feasibility Study.
- DOE and Bechtel Jacobs Company hosted workshop June 24, 1999, to discuss characterization of Dense Non-aqueous Phase Liquids (DNAPL) areas. The workshop, presented by the Savannah River Technology Center and Applied Research Associates, was attended by 33 representatives of industries, universities, and state and federal government from seven states (Kentucky, Tennessee, Ohio, New York, Massachusetts, Florida, and New Mexico). The workshop was held in conjunction with the Sonic Cone Penetrometer and DNAPL Detection Sensors Deployment Project. The purpose of the Sonic

Cone Penetrometer and DNAPL Detection Sensors Deployment Project is to: demonstrate depth capacity of the penetrometer drilling method in Paducah's geology, and test DNAPL characterization tools in a suspected contaminant source zone, all in support of the Groundwater Operable Unit. The week of June 28, 1999, this test found that the Sonic Cone Penetrometer method provided a minimal increase in depth over the conventional static cone penetrometer. A DNAPL characterization tool was successfully evaluated. This tool provides a method for detecting the presence and location of TCE Dense Non-Aqueous Phase Liquids (DNAPLs). The method uses a membrane that turns pink/red when contacted by TCE. The membrane resembles a fire hose that can be lowered and hydraulically expanded in the borehole to define areas with pure phase TCE present. This membrane was installed at a depth of 59 feet in a suspected DNAPL source area near the C-400 Chemical Cleaning Facility. An analysis of the membrane upon removal after 50 minutes of contact with the soil showed locations that had been in contact with pure phase TCE.

- The State of Kentucky is expected to respond soon on the WAG 6 D2 Remedial Investigation Report. Upon approval of the D2 Remedial Investigation Report, the WAG 6 information will be combined with data from the WAG 27 and WAG 28 Remedial Investigations and incorporated into three Operable Units (Groundwater, Surface Water, and Surface Soils) for development of Feasibility Studies and related decision documents.
- The Innovative Treatment Remediation Demonstration process for the Groundwater Operable Unit Feasibility Study continued with a meeting at Kevil June 22-23,1999. Representatives of the Paducah SSAB attended this. At the June meeting, the ITRD heard six different vendor presentations on soil and groundwater remediation technologies. The ITRD Technical Advisory Group presented five additional remediation technologies. A subcommittee was appointed to advise the full ITRD committee on a possible reactive media treatability study at the operating pump-and-treat facility. The next ITRD meeting is scheduled for August 19 and 20, 1999 in Paducah, Kentucky. The scope of the ITRD process includes a cooperative public-private partnership developed to reduce remediation schedules and costs by accelerating acceptance and use of new technologies. The program coordinates DOE, EPA, industry, and regulatory

agencies in evaluating, implementing and validating innovative remediation technologies at selected DOE sites.

PROJECT: Waste Area Groups 9 & 11

Summary: WAGs 9 and 11 include seven in-ground tanks, vaults and pits at the PGDP. A Site Evaluation was conducted in Fiscal Year 1998 to determine whether any releases of contaminants had occurred. WAG 9 consists of the C-722 acid neutralization tank, off the northeast corner of the C-720 maintenance facility; the C-712 acid neutralization tank, off the southwest corner of the C-710 laboratory; the C-616-L Pipeline and vault soil contamination area; and the C-729 Acetylene building drain pits, just east of C-720. WAG 11 consists of the C-410-B hydrofluoric acid (HF) neutralization sludge lagoon; the C-410-E HF emergency holding pond; and the C-410-C HF neutralization tank.

Status:

- The D1 Site Evaluation Report was issued December 23, 1998.
- Any actions beyond these recommendations would be deferred to the Surface Soils Operable Unit project.
- The Kentucky Department for Environmental Protection provided comments on the D1 Site Evaluation Report on March 26, 1999, and these comments are being addressed.
- The D2 Site Evaluation Report for WAGs 9 & 11, was issued to KDEP on June 24, 1999. The report includes results of the Site Evaluation conducted on the seven SWMUs in 1998, and makes recommendations for each SWMU. No action was recommended for three SWMUs. Any additional work on the remaining SWMUs is expected to be addressed by the Surface Soils Operable Unit Remedial Investigation Work Plan, scheduled to begin development in November 1999.

-more-

8. PROJECT: Waste Area Group 23/PCB spill sites

Summary: WAG 23 consists of eight SWMUs inside the PGDP security fence, and one outside the fence, located near the C-611 Water Treatment Facility fence on DOE property. Past use of PCBs and subsequent accidental spills and leaks of oils that contain PCBs caused the surface soil contamination at these SWMUs. Excavation of approximately 175 cubic yards of contaminated soil at several PCB sites was completed in late 1997 and early 1998.

Status:

- A D1 Proposed Remedial Action Plan recommending No Further Action was submitted to regulators November 6, 1998. EPA provided comments, dated December 17, 1998.
- A Residual Risk document and explanation of average concentrations calculations were provided to the State of Kentucky on February 18, 1999.
- State comments on the D1 Proposed Remedial Action Plan were received April 16, 1999.
- At the request of the Kentucky Department for Environmental Protection, supplemental samples have been collected from the drainage area south and east of SWMUs 56 and 80.
- The D2 Proposed Remedial Action Plan was issued to regulators May 26, 1999.
- The Kentucky Department for Environmental Protection rejected the no action preferred option in the D2 Proposed Remedial Action Plan in a letter dated June 29, 1999. The letter requested a resolution meeting by July 29, 1999. DOE's no action proposal was based on promulgated EPA action levels for PCB-contaminated soils.
- On July 27, DOE wrote a letter officially invoking the informal dispute resolution process.

-more-

9. PROJECT: Waste Area Group 27

Summary: WAG 27 consists of potential or known sources of TCE on the west side of PGDP suspected of contributing to groundwater contamination. WAG 27 includes the C-747-C Oil Land Farm, SWMU 91 (the cylinder drop test area), SWMU 196 (C-746-A warehouse septic systems) and the C-720 maintenance facility.

Status:

- Issued D1 WAG 27 Remedial Investigation Report December 23, 1998.
- EPA comments were received March 31, 1999.
- State comments were received on April 5, 1999.
- The D2 Remedial Investigation Report was issued to regulators June 3. The state conditionally approved the D2 on July 13, 1999, with the provision that an errata page would be completed within 45 days.

10. PROJECT: Surface Water Operable Unit

Summary: The Surface Water Operable Unit includes the Big and Little Bayou Creeks, all Kentucky Pollutant Discharge Elimination System (KPDES) outfall ditches, and the primary source areas potentially contributing to contamination in these locations, including: past releases from C-333A and C-337 vaporizers and the switchyards, and sediment from plant storm sewer systems. Primary contaminants of concern are PCBs and radionuclides with metals as a secondary concern.

Status:

- Issued the D1 Scoping Document March 29, 1999.
- Data Quality Objective meetings were conducted April 14-15, 1999, with regulators and representatives of the Kentucky Fish and Wildlife Resources Department, and U.S. Fish and Wildlife Services.
- The Risk Assessment for the SWOU is scheduled to include baseline risk assessments for human health and the environment.
- The D0 Remedial Investigation Work Plan was sent to SWOU team members for comment on July 16, 1999. The D1 plan is scheduled to be transmitted to regulators September 30, 1999.

-more-

11. PROJECT: Waste Treatment, Storage and Disposal

Summary: Waste Treatment and Disposal involves materials classified as low-level mixed waste and mixed waste stored at the Paducah Gaseous Diffusion Plant. These wastes include both hazardous materials and those containing low levels of radioactivity. There are more than 50,000 55-gallon drum equivalent of waste stored at the PGDP. In addition, there are an estimated more than 60,000 tons of scrap metal stored at the plant.

Status:

- On July 12, a Request for Proposals was issued by Bechtel Jacobs Company LLC to eight pre-qualified bidders for a multi-year Waste Operations subcontract. The contract includes waste storage operations, waste characterization, compliance, data tracking and related tasks.
- The Kentucky Division of Waste Management conducted its annual inspection of the C-404 Hazardous Waste Landfill on July 21. The three representatives did not note any findings, but commented the landfill activities were performed well and within compliance of the permit and procedures. A final reported will be submitted to DOE within the next few months.

-END-

Engineering Evaluation/Cost Analysis for Scrap Metal Removal at the Paducah Gaseous Diffusion Plant, Paducah Kentucky DOE/OR/07-1797&D2

- There are over 60,000 tons of scrap metal and material on approximately 25 acres at Paducah Gaseous Diffusion Plant.

- Removal of materials from the scrap yards is required by the Federal Facilities Agreement. Removal will mitigate contaminant migration and allow for the investigation of the underlying soils (another requirement of the Federal Facilities Agreement).

- The objectives of the Engineering Evaluation/Cost Analysis are to:
  1. Describe the environmental conditions prompting this non-time critical removal action;
  2. Develop and evaluate alternatives, including costs;
  3. Recommend the alternative that best meets the removal action objectives; and,
  4. Assess the risk associated with the preferred alternative.

- The preferred alternative is the removal of scrap metal utilizing to best advantage recycle, reuse, resale, and disposal.

- Schedule (dates are approximate dependent on timeliness of each given event):
  - D2 Engineering Evaluation/Cost Analysis - regulator approval by September 13, 1999
  - 45-day public comment period on the D2 Engineering Evaluation/Cost Analysis will begin September 27, 1999
  - Action Memorandum - regulator approval by March 20, 2000
  - Removal Action Work Plan - regulator approval by July 24, 1999
  - Field Implementation start August 8, 2000

Fact Sheet:
Engineering Evaluation/Cost Analysis for Scrap Metal Removal
at the Paducah Gaseous Diffusion Plant, Paducah Kentucky, (DOE/OR/07-1797&D2)
August 11, 1999

The Paducah Gaseous Diffusion Plant (PGDP) was placed on the National Priorities List on May 31, 1994. Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) required the negotiation and implementation of the PGDP Federal Facility Agreement (FFA), which provides the regulatory strategy for site CERCLA actions. Removal of materials from the PGDP scrap yards is an action required by the FFA and is necessary before other scheduled FFA actions can be achieved. Removal and disposition of the contaminated scrap materials will mitigate contaminant migration from the scrap yards and allow for the planned investigation of the underlying soils. The scrap yards are Areas of Concern (AOCs) under CERCLA. Removal actions for the scrap yards will address requirements for AOCs under CERCLA. The removal action will assist in meeting the clean-up objectives for the entire PGDP site.

A document titled *Engineering Evaluation/Cost Analysis for Scrap Metal Removal at the Paducah Gaseous Diffusion Plant, Paducah Kentucky* has been prepared to support the removal and disposition of over 60,000 tons of scrap metal and other material from the scrap yards at the PGDP. Removal and disposition of the scrap material will be performed as a non-time-critical removal action under the FFA process for CERCLA. Publication of this document meets a FFA milestone. This document was prepared in accordance with the *Annotated Outline for an Engineering Evaluation/Cost Analysis* (DOE 1996).

This Engineering Evaluation/Cost Analysis (EE/CA) addresses scrap material in the following scrap yards:

- C-746-P1 Clean Excess Metal Yard,
- C-746-P East Regulated Yard,
- C-747-A UF4 Drum Yard,
- C-746-E Contaminated Excess Metal Yard,
- C-746-E1 Contaminated Excess Metal Yard,
- C-746-C Contaminated Excess Metal Yard,
- C-746-C1 Contaminated Excess Metal Yard,
- C-746-H4 Nickel Ingot Storage Yard,
- C-747-B Scrap Yard,
- C-746-D Classified Scrap Yard,
- U.S. Department of Energy Material Storage Area (1) South/West, and
- U.S. Department of Energy Material Storage Area (3) East

This EE/CA analyzes four alternatives for removal and disposition of contaminated scrap material at the PGDP. The alternatives include:

1. No Action
2. Removal of Scrap Followed by Storage
3. Removal of Scrap Followed by Disposal; and
4. Removal of Scrap Followed by Recycle, Reuse, Resale, and Disposal.

These alternatives were evaluated for effectiveness, implementability, and cost. The Removal Action Objectives (RAOs) for this removal action were the basis for evaluating the alternatives. The RAOs for this action are:

1. Reduce or remove risk and hazards posed to PGDP personnel from exposure to materials at or potentially migrating from deteriorating scrap piles and equipment.
2. Reduce or remove potential risks and hazards posed to offsite individuals, including residents and recreational users from exposure to materials migrating from deteriorating scrap piles and equipment.
3. Remove the scrap from the surface to allow investigation and potential remediation of the underlying soils and burial grounds which are potentially contributing risks to off-site individuals, including residents and recreational users, and on-site workers.

The objectives of the EE/CA are to:

1. Describe the environmental conditions prompting this non-time critical removal action;
2. Develop and evaluate alternatives, including costs;
3. Recommend the alternative that best meets the RAOs; and
4. Assess the risk associated with the preferred alternative.

Community involvement is a critical aspect of the CERCLA process. DOE is conducting community relations activities for this project in compliance with 40 CFR 300.415(m)(1), (m)(3) and (m)(4) and its approved community relations plan, as described in the *Community Relations Plan for the Environmental Management and Enrichment Facilities Program, Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (DOE 1998).

The D2 EE/CA is scheduled for regulator approval by September 13, 1999. A 45-day public comment period will begin in September following that approval (approximately September 27, 1999).

- end -

TO: SSAB members
FROM: Public Outreach Subcommittee
RE: Letters to legislators
DATE: August 19, 1999

Three sample letters that you can use if you wish to write to your federal and state lawmakers are attached.

As recent events and media coverage have shown, there is considerable interest in and concern about environmental cleanup efforts at the Paducah Gaseous Diffusion Plant.

As a resident of this area, I am extremely interested in seeing that these efforts proceed as quickly and efficiently as possible. The support of federal and state lawmakers is required to ensure the safety of workers, residents and the environment.

I encourage you to devote your full attention to this matter.

As a member of the Site Specific Advisory Board for the Paducah Gaseous Diffusion Plant, I have watched the events of the past two weeks with interest. The media coverage given this issue proves interest in the plant and the related environmental cleanup effort goes far beyond those of us closely involved with the work. People here are concerned, and want the support of their elected officials in ensuring the work is done quickly and safely.

I hope we can count on your full attention as work proceeds.

The successful completion of environmental cleanup work at the Paducah Gaseous Diffusion Plant demands the full support of our elected officials. As the media coverage of allegations of plutonium contamination at the plant shows, public interest in the environment is intense, and some of us have serious concerns about the safety of plant workers and area residents.

I expect you to give the Paducah Gaseous Diffusion Plant and the environmental cleanup your full attention.

Public Involvement Information

August 1999
PROVIDED BY PADUCAH SITE SPECIFIC ADVISORY BOARD

Members of Congress

Sen. Mitch McConnell
S.R. 361A
Washington DC 20510
202-224-2541
Paducah Office 270-442-4554
senator@mcconnell.senate.gov

Sen. Jim Bunning
Suite 502
Hart Senate Office Building
Washington, D.C. 20510
202-224-4343
Hopkinsville 270-885-1212
bunning.senate.gov

Rep. Ed Whitfield
236 Cannon House
Office Building
Washington D.C. 20515
Paducah Office 270-442-6901
ed.whitfield@mail.house.gov.

Kentucky Lawmakers

Senate

Sen. Bob Leeper
229 S. Friendship Road
Paducah, KY 42003
(Office) - 270-554-9637
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Sen. Bob Jackson
P.O. Box 790
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bob.jackson@lrc.state.ky.us

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Rep. Charles Geveden
P.O. Box 518
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Rep. Fred Nessler
400 State Route 440
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(Fax) - 270-247-1267
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Rep. Frank Rasche
2929 Jefferson Street
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Rep. J.R. Gray
3188 Mayfield Highway
Benton, KY 42025
(Home) - 270-527-8376
Frankfort - 502-564-8100, ext. 699
jr.gray@lrc.state.ky.us

Governor Paul Patton
700 Capital Ave.
Frankfort, KY 40601
(Office) - 502-564-2611
governor@mail.state.ky.us

Key Contact People

DOE Site Office

Manager, Jimmie Hodges, 441-6806;
e-mail: *hodgesjc@ornl.gov.*
Public Involvement, John Sheppard, 441-6804,
e-mail: *sheppardjd@ornl.gov*
Environmental Management, Myrna Redfield, 441-6815,
e-mail: *redfieldme@ornl.gov*

DOE Environmental Information Center

West Kentucky Technology Park, U.S. 60, Kevil, 462-2550.

Environmental Regulators

Tuss Taylor, Commonwealth of Kentucky,
(502) 564-6716, *taylor@nrdep.nr.state.ky.us*

Carl Froede jr., U.S. EPA Region 4,
(404) 562-8550 *froede.carl@epamail.epa.gov*

Bechtel Jacobs Company

Public Affairs, 441-5023, *wittierds@bechtel jacobs.org*

Bechtel Jacobs Company LLC
Paducah Project

Site Specific Advisory Board

Actual Costs to Date *(Including Prior Year)* **thru**
July, 1999: $ 102,839

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 FY 99
Bechtel Jacobs Company LLC	11,487	190	(86)	966	288	701	1,727	1,061	(1,099)	650	1,488	0	0	5,888
BJC Sub. - Roberts & Kay, Inc.	15,570	0	1,292	1,186	0	4,277	496	2,008	(3,561)	2,323	1,173	0	0	9,196
BJC Sub. - Jacobs Engineering Group	19,713	0	0	10,171	2,996	3,204	19,669	9,627	(12,458)	4,528	3,248	0	0	40,985
Total Project	46,770	190	1,207	12,323	3,284	8,183	21,892	12,697	(17,118)	7,501	5,910	0	0	56,069

NOTES: *Cost Corrections were made in May to move cost for the SSAB to a single charge code.*
Accruals for Roberts & Kay, Inc. and Jacobs Engineering were overstated in March & April. Corrections have been made in May's Report.

Budget for FY99: $ 92,484
FY99 CTD: $ 56,069
Remaining Funding: $ 36,415

Bechtel Jacobs Company LLC
Paducah Project

06-Aug-99
8:27 AM

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 FY 99
BJC Engineering Cost Center	OR - Ron Wells - Task Support	858	84	(84)	42	42	86	87	48	83	88	44	0	0	524
BJC Procurement	Contract Work	982	92	(92)	0	0	0	0	0	0	0	0	0	0	0
BJC Project Controls	Project Analyst/Finance Officer Support	829	0	0	0	0	0	0	0	0	0	0	0	0	0
SSAB - Misc Expenses	Rents, Food, Sound Recording, Public Notice, etc.	840	0	0	0	0	0	0	61	101	0	1,001	0	0	1,163
Support Activities Distributable	Telecommunications, Computing Support, etc.	7,979	14	90	923	246	613	1,640	951	(1,283)	562	443	0	0	4,201
Total Project		11,487	190	(86)	966	288	701	1,727	1,061	(1,099)	650	1,488	0	0	5,888

Roberts & Kay, Inc.

Paducah Project

06-Aug-99
8:27 AM

Material Charge Number

54 / P / JEC04

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	13,033	0	1,292	1,186	0	1,202	1,015	1,108	1,063	1,155	1,173	0	0	9,196
BJC Sub. - Roberts & Kay, Inc. (Accruals)	Facilitator to the SSAB	2,537	0	0	0	0	3,075	(519)	900	(4,624)	1,168	0	0	0	(0)
Total Project		15,570	0	1,292	1,186	0	4,277	496	2,008	(3,561)	2,323	1,173	0	0	9,196

Jacobs Engineering Group, Inc.

Paducah Project

TASK NUMBER:

35 - H831 - 48

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 FY 99
BJC Sub. - Jacobs Engineering (Payments)	8,381	0	0	1,402	3,836	3,694	3,161	5,920	4,636	3,796	3,804	0	0	30,250
BJC Sub. - Jacobs Engineering (Accruals)	11,332	0	0	8,769	(840)	(490)	16,507	3,707	(17,094)	732	(556)	0	0	10,735
Total Project	19,713	0	0	10,171	2,996	3,204	19,669	9,627	(12,458)	4,528	3,248	0	0	40,985

INVOICES

35-H831-48 Statement of Cost - Voucher Number: N/A

Total Amount Due $ 107.00 **PAID - JUNE**

35-H831-48 Statement of Cost	Voucher Number: 59	Voucher Number: 60	Voucher Number: 61	Voucher Number: 62	Voucher Number: 63	Voucher Number: 64	Voucher Number: 65	Voucher Number: 66	Voucher Number: 67	Voucher Number: 68	Voucher Number: 69	Voucher Number: 70
LABOR @ Office	95.63	107.58	234.49	46.26	439.87	495.27	386.97	286.59	245.64	532.24	163.77	163.76
LABOR @ Site	182.28	130.21	294.94	286.75	477.19	870.92	1,468.86	763.57	1,206.48	676.09	554.96	521.62
Teaming Subcontractors: PAI Corporation	258.03	680.28	1102.53	950.04	0.00	1570.63	1,013.77	754.99	1,138.10	2,433.13	2,046.82	2,052.19
Other Direct Costs	1,195.00	16.21	2706.46	94.80	485.07	899.24	824.41	1,356.22	3,330.10	994.37	1,030.21	1,066.47
Amounts Previously Invoiced	(137.76)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Amount Due	$ 1,593.18	$934.28	$4,338.42	$1,377.85	$1,402.13	$3,836.06	$3,694.01	$3,161.37	$5,920.32	$4,635.83	$3,795.76	$3,804.04
	PAID - JULY	PAID - SEPT	PAID - SEPT	PAID - SEPT	PAID - DEC	PAID - JAN	PAID - FEB	PAID - MAR	PAID - APR	PAID - MAY	PAID - JUN	PAID - JUL

PLEASE SIGN IN

Paducah Gaseous Diffusion Plant
Site Specific Advisory Board

Name	Affiliation
CORINNE WHITEHEAD	CHC
Ernest R Whitehead	CHC
[illegible]	CHC
Debbie Wattier	Bechtel Jacobs Co.
Ernie Mitchell	WPSD-TV
JIM ROSHAN	WASHINGTON POST
Jim Okemut and Ellen	Pace Retiree Representative
[illegible]	CHC
Carl Froede Jr	US EPA Region 4
Lynda Lewis	SSAB
Walter Perry	DOE
Eric Scott	KY Rad Control
Todd Adams	KY Rad Control
DAVE MASSEY	Bechtel Jacobs Co.
Stan Knows	LAN-CON, Inc.
DAVID HUTCHESON	LAN-CON, INC.
Norm Jetts	Vortec Corp
John [illegible]	KY Rad Control
Kit [illegible]	SSAB
VICKI JONES	SSAB
JOHN D. SHEPPARD	US DOE
Steve Mainers	BJC
Don [illegible]	Retired

August 19, 1999

PLEASE SIGN IN

Paducah Gaseous Diffusion Plant
Site Specific Advisory Board

Name	Affiliation
David Fuller	SSAB - PACE
Phillip Foley	PACE
Gaye Brewer	KDEP - Div of Waste Mgt
Judy Ingram	SSAB
Rosa Scott	SSAB
Mara Courtney	SSSA.
Ronald Lauck	SSAB
Robert Cannon	
Charlene Brown	
Craig Rhodes	SSAB
Mark Donahue	SSAB
Kristi Hanson	
Gregory W. Carop	SSAA
Jim Massey	BJC
Brad Darnall	WPSD-TV
Chuck Fyrkins	BJC
Todd Mullins	KyDWM.
Brian Baker	KDWM
Shirley Speer	JACOBS TEAM
Bruce Gunde	PIG

August 19, 1999

SIDE A

Paducah Gaseous Diffusion Plant (PGDP)
Site Specific Advisory Board (SSAB)
1999 Workplan

ISSUE	EXPECTED ACTIONS	STATUS/APPROACH	Jan 99	Feb 99	Mar 99	Apr 99	May 99	Jun 99	Jul 99	Aug 99	Sep 99	Oct 99	Nov 99	Dec 99
Waste Management		Transuranic Waste												
Waste Minimization/ Pollution Prevention	Review documents	Monitor and provide suggestions as appropriate												
Transportation of Wastes/ Hazardous Materials		Discuss issues for Paducah			✔									
Decontamination & Decommissioning	Review documents	Monitor and provide suggestions as appropriate						✔						
Economic Impact on Community	Monitor	Monitor and provide suggestions as appropriate												
Protection/Restoration of Natural Resources & Ecological Values	Review documents	Monitor and provide suggestions as appropriate												
Protection of Workers, Public Health, and Safety	Monitor projects	Monitor and provide suggestions as appropriate												
Technology Development and Transfer	Review documents	Monitor and provide suggestions as appropriate												
Strategies for Effective and Meaningful Public Input	Work 2 DOE/CRP	Monitor and provide suggestions as appropriate												
Cost Effectiveness	Review documents	Monitor and provide suggestions as appropriate												
WAG 6	Review documents	Innovative Technology Remediation Demonstration (ITRD) Update	✔		✔	✔								
WAG 22, SWMUs 2 and 3	Review documents	Review DOE's reply to regulator comments	✔ SWMU 2		✔									
WAG 22, SWMUs 7 and 30	Review documents	Monitor and provide suggestions as appropriate	✔											
WAGs 9 & 11 Preliminary Assessment/Site Inspection (PA/SI) Process Site Evaluation Report			✔		✔	✔								
WAG 17		Record of Decision (ROD) signed 9/29/97												
Lasagna														
Drum Mountain (WAG 24)	Review documents	Monitor and provide suggestions as appropriate												
Site Treatment Plan Annual Report														

August 19, 1999

SIDE B

Paducah Gaseous Diffusion Plant (PGDP)
Site Specific Advisory Board (SSAB)
1999 Workplan

ISSUE	EXPECTED ACTIONS	STATUS/APPROACH	Jan 99	Feb 99	Mar 99	Apr 99	May 99	Jun 99	Jul 99	Aug 99	Sep 99	Oct 99	Nov 99	Dec 99
Federal Facilities Agreement (FFA)	Review progress of update	Discuss milestones and schedule			✔									
Integrated Waste Management Plan		IWMP yearly update completed 12/15/97												
Vortec	Receive update		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Board Evaluation	Receive recommendations	Conclusions presented by the SSAB Evaluation Committee		✔	✔	✔								
Bechtel Jacobs M&I														
National Environmental Protection Act (NEPA)														
Environmental Report														
Accelerating Cleanup Plan - Paths to Closure	Review documents	Monitor and provide suggestions as appropriate												
Depleted UF_6 PEIS	Receive update	Review budget	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Northeast and Northwest Plumes Pump and Treat Facilities		Discuss hiring technical support	✔	✔	✔									
Training Options for SSAB	Review catalog	Discuss hiring technical support												
DOE Rulemaking Process														
Membership and Public Outreach		Review membership applications	✔								✔			
Paducah-Area Community Reuse Organization (PACRO)		Discuss how PACRO relates to the SSAB	✔											
Risk Assessment		Receive training and relate to WAGs 6 and 22	✔											
Cumulative Effects on the Site		Open discussion, review NRDC settlement information		✔	✔	✔								
Groundwater Operable Unit	Review Feasibility Study	Monitor and provide suggestions as appropriate		✔										
Surface Water Operable Unit	Review documents					✔								
Risk Profile	Review documents	Monitor and provide suggestions as appropriate			✔									

August 19, 1999

DOE NEWS

NEWS MEDIA CONTACTS:
Steve Wyatt, 502/441-6830
Natalie Wymer, 202/586-4940

FOR IMMEDIATE RELEASE
August 12, 1999

ENERGY DEPARTMENT LAUNCHES IN-DEPTH INVESTIGATION OF PADUCAH PLANT

• TEAM SET TO ARRIVE ON TUESDAY
• COURT SEAL LIFTED
• HOTLINE ESTABLISHED FOR PUBLIC INQUIRIES

The U.S. Department of Energy's investigative team has been named and is set to arrive at the Paducah Gaseous Diffusion Plant on Tuesday. Earlier this week, Secretary of Energy Bill Richardson ordered a full investigation of recent allegations that past activities at the Paducah facility had endangered the health of employees and the public.

"I want to assure the current and former workers and the Paducah community that we are aggressively working to answer their questions and concerns," Secretary Richardson said. "Our workers are entitled to open discussions of health and safety issues, and if they have been harmed in the past, they should be treated and compensated."

The team, led by the Energy Department's Office of Oversight, is working closely with the Commonwealth of Kentucky and in consultation with the Environmental Protection Agency and the Nuclear Regulatory Commission.

In June, the Energy Department dispatched a team of health and safety experts to the Paducah site to begin to assess the situation. At that time, they did not uncover imminent threats to the public health, worker safety or the environment.

A hotline has been established for current and former workers concerned about possible health effects from their employment at Paducah. The phone number is 877/447-9756.

Work on other actions that Richardson announced earlier this week continues, including:

- Dr. David Michaels, the department's Assistant Secretary for Environment, Safety and Health was in Paducah on Monday and Tuesday to meet with workers and the public;

- more -

R-99-215

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- the National Academy of Sciences' Institute of Medicine will include Paducah workers in an independent examination reviewing the relationship between hazardous exposures and illnesses in workers at Energy Department sites;

- initiation of a comprehensive study of Paducah workers' medical histories since the 1950s and an expansion of a medical surveillance program to include former and current workers at the Paducah site. An ongoing project provides medical monitoring for former workers at the gaseous diffusion sites, including Portsmouth and Oak Ridge;

- consideration of whether to expand the scope of legislation, soon to be sent to Congress, to include workers who have been exposed to radioactive materials such as those at Paducah and became ill as a result;

- assessment of the contractual and legal responsibilities of the Energy Department's contractors and whether those responsibilities were met;

- reassessment of the Energy Department's Fiscal Year 2000 budget request to addresses all important health and safety issues at our gaseous diffusion plant sites and if necessary, recommend changes to the Congress; and

- review of the Gaseous Diffusion Plant sites in Piketon, OH and Oak Ridge, TN and other Energy Department sites who in the past may have handled materials similar to those handled at Paducah.

Late last evening, the United States District Court of the Western District of Kentucky granted the Government's request to lift the seal in a case concerning issues filed by employees of the Paducah facility and others on behalf of the United States. Because of the seal, the Government was not previously able to discuss or acknowledge the lawsuit or address the allegations in the complaint. The Government is investigating the complaint's allegations and will decide whether to pursue the suit.

- DOE -

R-99-215

DOE NEWS

NEWS MEDIA CONTACTS:
Steve Wyatt, 270/441-6830
Natalie Wymer, 202/586-4940

FOR IMMEDIATE RELEASE
August 17, 1999

Statement of David Stadler, Senior Manager
Department of Energy Investigative Team

"We are in Paducah today to begin a comprehensive and independent investigation to examine environment, safety and health issues stemming from the Cold War activities at this site. Our investigation will determine what has occurred, what were the root causes, and what must be done to prevent recurrence. This is an important step in Secretary Richardson's action plan to respond to concerns raised about worker safety and environmental contamination at Paducah.

Our investigation will leave no stone unturned in terms of resolving people's worker safety and environmental concerns. We will complete our work in two phases. Phase One will focus on issues and concerns from the past ten years, so that we can obtain information on legacy hazards and the protection of workers.

Phase Two work will carefully examine the legacy of environment, safety and health issues that occurred prior to 1990. This will begin simultaneously with Phase One as we gather the documents and historical records needed.

Our investigative team is comprised of permanent, Department of Energy employees from the Office of Oversight. None of the team members has a stake in the events of the past, nor in the outcome of this investigation. The Office of Oversight reports directly to Dr. David Michaels, the Assistant Secretary for Environment, Safety and Health. (A list of the team members and their technical qualifications is attached).

It is our plan to coordinate the investigation with other organizations that have regulatory authority at Paducah, including the state of Kentucky, the Environmental Protection Agency, the Nuclear Regulatory Commission and the Occupational Safety and Health Administration, as well as interested Members of Congress and state and local elected officials. Of course, the workers themselves are the key stakeholders here at Paducah, and we will hear from them both individually and through their union representatives.

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The team managers are here today to begin the investigation with an initial visit that will give us the information we'll need to more clearly define what we'll be doing. They will establish points of contact for the onsite investigation, obtain documents to support planning, tour facilities and grounds to select areas for investigation focus, conduct initial interviews with key DOE and contractor managers and union officials, and meet with various stakeholders to discuss the investigation and listen to their concerns and input.

So far, we've identified the following as key Phase One investigation issues:

- Evaluating how effective corrective actions and upgrades made since 1990 have been in resolving identified issues and threats to public and worker safety and health and to the environment.

- Evaluating the effectiveness of current radiological and environmental protection and monitoring programs

- Independently sampling of selected potential onsite and offsite contamination areas including groundwater, surface water, soil, and scrap equipment surveys.

Following completion of the onsite evaluation, the team will return to their Washington offices to assess the data. They then return to Paducah to validate the report findings and conduct exit interviews and briefings. The final Phase One report will then be sent to the Secretary of Energy within 45 days."

-DOE-

L-99-051

U.S. Department of Energy
Investigative Team
Team Members

Team Management
Dave Stadler, Ph.D, Senior Manager
Ray Hardwick, Senior Manager
Pat Worthington, Team Leader

Safety Management Group
Brad Davy, Group Leader
- Marvin Mielke, RN
- Bob Freeman
- Bill McArthur, PhD CIH
- Jerry McKamy, PhD

Technical Support: Al Gibson, Jim Lockridge, Mark Good

Environment Group
Bill Eckroade, Group Leader
Vic Crawford

Technical Support: Arlene Weiner, Thomas Naymik, Chris Perfy, Mario Vigliani

Radiological Protection Group
Ed Blackwood, Group Leader
- Robert Loesch,
- Bill Cooper
- Pete O'Connell

Biographical Information

David Stadler, PhD, Nuclear Engineering, currently serves as the DOE Deputy Assistant Secretary for Oversight. He has more than 30 years of management experience at both DOE and the Nuclear Regulatory Commission , as well as major private utilities.

Raymond Hardwick currently serves as Deputy of the Oversight Office. He has several ye of technical management experience in both the public and private sectors, and has held key positions with the Insittute of Nuclear Power Operations where he evaluated corporate and nuclear power plant programs at utilities across the nation.

Patricia Worthington, PhD, Chemistry, currently directs the office that conducts all comprehensive safety evaluations conducted by the Office of Oversight and has performed evaluations at most major DOE sites. She has 19 years experience in the nuclear industry an is an internationally-recognized technical expert in analysis of nuclear power plant accidents.

Bradley Davy, chemist, has more than 12 years of experience with the nuclear industry, including as an officer in the U.S. Navy Nuclear Propulsion Program. At DOE he has participated in restart reviews for seveal major projects including the K-Reactor, the Waste Isolation Pilot Plant, and operating reviews at the Portsmouth and Paducah Gaseous Diffusio Plants.

Marvin Mielke, RN, has held several occupational health and safety positions in both public and private sectors. His experience includes public health nursing, emergency medicine, workers' compensation and OSHA injury/illness reporting.

Robert Freeman is a nuclear engineer with more than 20 years experience in the nuclear industry. In addition to his work in the DOE Office of Oversight, he has conducted several evaluations and investigations for the Nuclear Regulatory Commission. He is a certified by t NRC as a power reactor inspector and incident investigator.

Billy McArthur, PhD in Industrial Hygiene, Certified Industrial Hygienist, has more than 2 years of academic and private sector experience in the field of occupational health and safety including service for the Washington State Department of Labor and Industries.

Jerry McKamy, PhD nuclear physics, is an expert in nuclear criticality safety with more tha 15 years of experience as a specialist at the Rocky Flats site. He currently provides expert assistance to several DOE field offices and serves on the DOE Nuclear Criticality Safety Program Management Team

William Eckroade is an environmental engineer and Registered Environmental Manager w has more than 13 years experience in safety and health program management with the federa government. He has led several environmental audits of DOE facilities during his DOE care

Victor Crawford is a Registered Environmental Engineer and Registered Environmental Manager with 18 years experience with the Navy Facilities Engineering Command overseein environmental compliance. As such, he was responsible for developing and implementing environmental compliance programs at Naval facilities around the world. .

Edward Blackwood has 19 experience with the nuclear industry and the Department of Energy as an expert in worker radiological protection and safety management issues. His als served with the Nuclear Regulatory Commission in management of inspection and regulatio of nuclear power plants.

Robert Loesch is a Registered Radiation Protection Technician with more than 31 years of experience in radiation protection. Prior to joining DOE in 1989, he worked with the Nuclea Regulatory Commission and the Armed Forces Radiobiological Research Institute.

William T. Cooper is a Certified Safety Professional who has served as an on-site Oversight Resident at several major DOE sites. He has conducted many inspections and assessments o safety performance in areas such as health physics, industrial hygiene, and worker and facilit safety.

Pete O'Connell, is a Certified Health Professional with more than 14 years experience in applied radiation protection. He currently develops guidance and policy on radiation protection issues, and has expereince with the Nuclear Regulatory Commission as a Health Physics Inspector.

COMMONWEALTH OF KENTUCKY
OFFICE OF THE GOVERNOR

PAUL E. PATTON
GOVERNOR

ANDREW "SKIPPER" MARTIN
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For Immediate Release

August 17, 1999

Contact: Melissa Forsythe or Mark Pfeiffer (502) 564-2611

Governor Says No Immediate Danger At Paducah Gaseous Diffusion Plant; Pledges To Get Plant Up Quickly

Cleared (fixed in final copy)

Paducah, Ky. – Following a tour of the Paducah Gaseous Diffusion Plant and a conversation with a group of plant workers, Governor Paul Patton said he found no immediate danger to residents who live near the plant, or to the workers inside. "Several of the employees told me, that as far as today's conditions are concerned, the safety controls are adequate. They feel comfortable in their environment and they're not concerned about any exposure they are receiving."

Several of the workers, who also live near the plant, expressed a similar opinion on the environment outside the plant.

The governor's visit today was in response to the revelation that workers at the plant may have been exposed to plutonium and other radioactive materials over a prolonged period dating from the 1950's.

Joining the governor for the tour were Deputy Secretary of the Executive Cabinet, Jack Conway, coordinator of a fact-finding team made up Natural Resources and Environmental Protection Cabinet Secretary James Bickford and Dr. Rice Leach of the Department for Public Health.

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While acknowledging that any exposures that took place within the federal facility are the responsibility of the federal government, Governor Patton said. "This does not mean that our concern ends with this tour. In fact, it will continue with increased surveilance and monitoring."

Both the Natural Resources and Environmental Cabinet and the Department for Public Health announced several measures the state will take in response to the situation in Paducah.

The Department of Public Health will develop a well water priority testing program, review their radioactivity monitoring program, and make additional information available to the citizens of McCracken County.

The Natural Resources and Environmental Cabinet will increase testing frequency in creeks, streams, and rivers in the area, produce a quarterly report on their findings, and establish a toll free number to answer any questions from residents. The number is (888) 323-6403, extension 338. The Cabinet's toll-free number will be answered by staff from the Kentucky Division of Waste Management during normal working hours, 8:00 a.m. - 4:30 p.m. EDT. After hours, messages can be left and calls will be returned the next business day. Radiation and health-related questions will be referred to the Kentucky Cabinet for Health Services, Radiation Health and Toxic Agents Branch. Their direct phone number is (502) 564-3700.

Governor Patton's first action is to lobby the Congress and the administration to fully fund the cleanup of the plant, so that it can be finished by at least 2010.

Obviously the pollutants are here, they need to be cleaned up, it's the nation's responsibility and we're going to be even more committed to make sure that the cleanup process is completed."

-30-

COMMONWEALTH OF KENTUCKY
OFFICE OF THE GOVERNOR

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For Immediate Release
August 11, 1999
Contact: Melissa Forsythe or Mark Pfeiffer (502) 564-2611

MEDIA ADVISORY

Frankfort, Ky. - Governor Paul Patton will take a personal tour of the Paducah Gaseous Diffusion Plant on Tuesday, August 17th, 1999 at 3:10 p.m. (CST). He'll be accompanied by Deputy Secretary of the Executive Cabinet Jack Conway who is heading up the state's interagency team gathering data on the plant, Natural Resources and Environmental Protection Cabinet Secretary James Bickford and Dr. Rice Leach, Commissioner of the Department for Public Health.

The governor plans to look at the on-site waste burial grounds and waste stored inside the fenced area of the plant. Patton will also meet with the head of the U.S. Department of Energy investigative team.

Governor Patton said, "We will gather all the information we can and try to make a rational decision as to what action the state should take in the future and if our actions in the past have been appropriate."

The Governor will be available to the media following the tour. Media interested in covering the tour should contact Steven Wyatt, Public Information Officer for the plant at 270-441-6830.

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Cabinet for Health Services
Department for Public Health
Rice C. Leach, M.D.
Commissioner
August 17, 1999

Statement Regarding the Paducah Gaseous Diffusion Plant

First, I want everyone to know there is nothing in the information collected by the Cabinet for Health Services (CHS) and the United States Department of Energy (DOE) to suggest that there has been a recent increase in risk of exposure due to the release of radioactive material at this facility. This is important! We are talking about what has been going on for a number of years. Second, data collected over the years by the CHS Department for Public Health, Radiation Control Branch are consistent with data reported by the DOE and do not support allegations that plutonium activity represents a risk to the health and safety of people living in the area. In addition, preliminary results of a health risk study initiated in 1994 by the United States Agency for Toxic Substances and Disease Registry (ATSDR) confirm our data that there is no demonstrable health risk to persons living off the site.

As many of you know from reading the newspapers, the local health department responded to a request to test a water supply for radiation in 1988. Tests of two wells revealed the presence of radioactive material. The discovery of this material stimulated several actions. First, residents in the area north of the plant were told of the presence of the radioactive material and were told to stop using their private wells. Second, the Department of Energy advised the Cabinet that the radiation was caused by technetium-99, a radionuclide normally found in fuel rods. Third, the DOE performed additional tests on the water and found trichlorethylene, a degreaser used at the plant. Fourth, the CHS and the Cabinet for Natural Resources and Environmental Protection (NREPC) began a long-term evaluation of the impact of the operations of the PGDP on human health and safety and on the environment. Fifth, municipal water systems now provide water to more than two dozen homes that were previously using water from contaminated wells.
As part of that long-term evaluation the CHS Radiation Control Branch located in the Kentucky Department for Public Health has sampled ground water (water down in the ground) and surface water (ponds and streams). Samples are collected from 10 wells and 28 surface locations in the path water takes as it migrates away from the plant. In addition, we collect water samples from three locations on the Big and Little Bayou Creeks and an additional very closely monitored water discharge that is part of the Kentucky Permitted Discharge Elimination System. Water is automatically collected every six hours and mixed to permit a composite sample.
For the last two years, the CHS has monitored the air for presence of radionuclides at six sites. Finally, we monitor the results of studies of the radiation levels in wildlife and game fowl. In 1993 and 1994 this department learned that a very small amount of plutonium was detected in meat from deer. In each case only one of eight deer sampled had the plutonium present. The Department for Public Health performed a risk analysis on the

data and concluded that these values did not pose a threat to human health and safety. We based that conclusion on our knowledge that the source of plutonium was already known and because the amount present in the deer was very low. It is so low that a person who ate the whole animal would still be under radiation limits applied to other foods. We have not detected plutonium in specimens collected in subsequent years. We do not monitor radiation in fish in part because there has been a fish advisory (don't eat the fish) since 1989 because of high levels of polychlorinated biphenyls (PCB) in the fish.

The CHS is statutorily mandated to be the radiation control agency for the Commonwealth of Kentucky. In addition to this statutory mandate, the CHS signed an agreement with what is now the United States Nuclear Regulatory Commission (NRC) in 1962 to become their agent for federal activities except those exempted by other statutes. The CHS licenses the possession, use, handling and disposal of all radioactive material within the Commonwealth except in those situations where regulatory authority is exercised by another federal agency such as the DOE. Because the DOE has the authority to regulate itself, the CHS does not regulate the nuclear activity at the PDGP. Although the CHS does not regulate the DOE, both agencies have cooperated in their efforts to evaluate the impacts of radiation from the facility on health and safety. The CHS is a participant in the Agreement in Principle between the DOE and the Commonwealth. This agreement provides a mechanism for the CHS to be actively involved in site investigations that will lead to site remediation (cleanup). The agreement also provides funding for the CHS to conduct sampling and analysis to ensure protection of public health and the environment.

The CHS learned about the presence of plutonium inside the PGDP as early as 1989 through public documents describing the presence of plutonium in a ditch on the property. Those documents indicated low level radiation and stimulated the CHS to install water monitors to determine whether or not the plutonium had migrated off site. Subsequent water and air sampling studies have confirmed that any plutonium at the plant has not moved off site.

The CHS has always taken the release of radionuclides from any facility seriously. This is evident by our action in 1988 that led to detection of contamination in private wells north of the facility. The fact that there are long-standing contamination problems at the Paducah plant is not in dispute, and the CHS is resolute in its efforts to address these issues. Our radiation program and our state epidemiologist are evaluating the present situation that specifically deals with plutonium. Governor Patton has asked the CHS to reassess and enhance current protection activities for the citizens of this area. With that in mind, I am directing the Radiation Program to take the following additional action:

The CHS will conduct radiochemical analysis of private well water samples for any person residing within one (1) mile south, east, and west of the plant. The CHS will also conduct radiochemical analysis of private well water for any resident living between the plant and the Ohio River to the north. The Radiation Control Branch staff will address questions about radiation. Their direct phone number is (502) 564-3700. Written requests for information can be sent to Manager, Radiation Health and Toxic Agents Branch, 275 East Main Street, Mail Stop HS 2E-D, Frankfort, KY 40621-0001. Staff from the Division of Epidemiology and Health Planning will respond to health-related questions. Their telephone number is (502) 564-7243.

The CHS will provide its sampling and radiochemical analysis data to the NREPC for inclusion in their quarterly information bulletin.

The CHS will review and evaluate its off-site radiation monitoring system at the facility and assess whether enhancements are needed to better protect public health and the environment. This activity will include input from the DOE and our contractor, the University of Kentucky. Any modification to the off-site radiation monitoring system will be noted and provided for publication in the NREPC's quarterly bulletin.

The CHS will compile its off-site radiochemical data and prepare yearly summary reports, which will be available upon request to the Radiation Control Branch.

The CHS will compile the data and analyze long-term trends for potential radiological impacts.

The CHS will continue its interaction with DOE on remediation projects. Furthermore, we will continue our involvement in activities such as the Site Specific Advisory Board and DOE's Innovative Technology Remediation Demonstration workgroup.

CHS, along with NREPC, have been actively monitoring the PGDP for over a decade with the specific purpose of protecting public health and safety, and ensuring a cost-effective and efficient cleanup of the facility.
In closing, I want to stress the CHS has and will continue its oversight of DOE activities to ensure the health and safety for citizens of the area.

Tuesday, August 17, 1999

Statement of James Bickford,
Secretary of the Cabinet for Natural Resources
and Environmental Protection

Statement Regarding the Paducah Gaseous Diffusion Plant

The Natural Resources and Environmental Protection Cabinet (Cabinet) has had a long history of addressing environmental concerns with at the Paducah Gaseous Diffusion Plant (PGDP).

Over a decade ago subsequent to the detection of contamination in off-site private drinking wells in 1988, the Commonwealth of Kentucky in conjunction with the federal U.S. Environmental Protection Agency (USEPA) began efforts to address the extensive environmental contamination associated with the operations at the Paducah Gaseous Diffusion Plant (PGDP). The Natural Resources and Environmental Protection Cabinet has regulatory authority over the management and disposal of solid waste, hazardous waste, discharges of pollutants to the waters of the Commonwealth, and some air emissions (Subpart H of 40 CFR Part 61). The cabinet does not have regulatory authority over nuclear waste, radioactive materials and waste, such as plutonium, uranium, and technetium. The U.S. Department of Energy (DOE), under the Atomic Energy Act, is self-regulating with respect to nuclear safety issues, radioactive materials and waste.

In August of 1988, the Cabinet for Health Services detected elevated levels of radionuclides in private drinking wells north of the PGDP. and residents utilizing these wells were immediately notified and were provided water by the DOE. Subsequent to the detection of radionuclides, ground water contamination in the form of trichloroethylenetrichloroethylene (an organic solvent) was also detected in ground water. The DOE was issued a Compliance Order by federal USEPAEPA to address the PGDP contamination.

In 1991, the Cabinet issued a hazardous waste permit demanding corrective action at contaminated areas where waste had been was managed or disposed. This permit requires that the contaminants be identified and to identify the areas of contamination. The hazardous waste permit allows DOE to treat and store hazardous and mixed (hazardous and radioactive) wastes. The permit requires assessment, investigation, and cleanup of hazardous wastes and hazardous waste constituents on-site and off-site. These areas are both inside and outside of the PGDP security fence where waste had been managed or disposed.

In 1994, the federal USEPA listed the contaminated area PGDP on the National Priority List (NPL). The National Priority List(NPL) is the federal EPA, USEPA's list of the most contaminated sites in the United States.

In 1998, the federal USEPA, the Cabinet, and the DOE entered into a comprehensive cleanup agreement that requires DOE to complete the PGDP facility cleanup to be completed at the facility by 2010.

Since the Cabinet issued its first cleanup permit at the plant(PGDP) nine years ago, it has routinely reviewed the complex environmental investigation and cleanup projects effort for ten years. Since 1991, the DOE has installed over 200 monitoring wells installed, in the vicinity of the PGDP both inside and outside of the PGDP security fence. and almost approximately 100,000 groundwater, surface water, soil, and air samples have been collected and analyzed by the DOE and the Commonwealth, inside and outside of the plant boundaries, and analyzed. Samples are collected daily and periodically analyzed. The Cabinet for Health Services has installed eight air monitors around in close proximity

to the plant PGDP in order to monitor for particulate airborne radioactive contaminants., and the Cabinet for Health Services has also installed automatic water samplers at four locations near the PGDP that collect and composite surface water are sampled every six hours.

The Cabinet randomly selects samples from groundwater, surface water and sediments to confirm the accuracy of samples taken by the PlantDOE. The Cabinet is currently conducting an additional biological monitoring study to evaluate the impact to on the creek systems.

The Cabinet's monitoring since 1991 has addressed environmental contamination, and specifically the impact of the plant and its activities on the environment. DOE, under the Atomic Energy Act is self-regulating, and is responsible for nuclear safety issues, including the issue of possible exposure of plant workers to plutonium inside the plant. Extensive DOE environmental monitoring studies at the plant has have revealed the presence of plutonium in several sediment samples at concentrations very low levels of activity. Studies have also shown the presence of other radionuclides and nonradioactive contaminants in various media at the plant. This prompted Governor Patton, along with six other Governors, to send a letter to President Clinton on August 18,1998 requesting additional funding for the DOE to complete cleanup of the site. This was the latest in a long line of requests from state officials for increased funding.

The disclosures related to plutonium are being taken very seriously. Governor Patton has asked the Cabinet to re-enforce current protection activities for the citizens of this the area. With that in mind, I am authorizing the following additional action:

1. The Cabinet has established a toll-free telephone number to respond to citizen questions about environmental concerns at the Paducah Gaseous Diffusion PlantPGDP: (888) 323-6403, extension 338. The Cabinet's toll-free number will be answered by staff from the Kentucky Division of Waste Management during normal working hours, 8:00 a.m. - 4:30 p.m. EDT. After hours, messages can be left and calls will be returned the next business day. Radiation and Health related questions will be referred to the Kentucky Cabinet for Health Services, Radiation Health and Toxic Agents Branch. Their direct phone number is (502) 564-3700.
2. The Cabinet will increase its distribution of a quarterly informational bulletin to local citizens, local libraries and area news media. This bulletin will summarize environmental monitoring results generated by the Cabinet for Health Services and our Cabinet from the PGDP and the surrounding community. For those wishing to be added to the mailing list, please call the Cabinet's toll-free telephone number.
3. The Cabinet will increase the monitoring frequency for gross alpha and gross beta particlesradionuclides outside the fenced area of the site.

The National Resources and Environmental Protection Cabinet takes our task of protecting the environment very seriously. The fact that there are long-standing environmental pollution problems at the Paducah plantPGDP is not in dispute.

Our Cabinet, along with the Cabinet for Health Services, has been actively monitoring monitored these environmental problems for over a decade since 1988 with the specific purpose of detecting environmental contamination and effecting the proper cleanup of contaminated areas. The allegations that high levels of plutonium contamination have

been found in the environment are not supported by any data we have gathered or reviewed since 1991.

I want to stress that the Natural Resources and Environmental Protection Cabinet has and will continue its oversight of environmental contamination at the plant and the remediation efforts we are requiring of DOE.

The Paducah Sun
August 19, 1999

STICK TO FACTS

Baseless fears arise from allegations

During a tour Tuesday of the Paducah Gaseous Diffusion Plant, Gov. Paul Patton and state environmental officials managed to inject a calming dose of reason into the controversy sparked by allegations of unsafe conditions in and around the uranium enrichment facility.

The governor noted that state officials have closely monitored the area around the plant for more than a decade. Based on the detailed information gathered by the state, Patton said he found "no immediate danger to workers or people living in this area . ..."

That point needs special emphasis: Plant employees and people who live near the plant aren't in grave danger from exposure to plutonium and other highly radioactive substances. In fact, all the available evidence indicates that current plant workers haven't inhaled or ingested plutonium, and that plutonium hasn't contaminated the environment around the plant.

Rumor and speculation have fanned the fears created by published reports based on allegations contained in a lawsuit filed against two former plant operators. Some employees of the United States Enrichment Corp., which operates the enrichment plants in Paducah and Portsmouth, Ohio, say worried relatives and friends in other parts of the country have called them to ask if they are "safe" here in radioactive Paducah.

It needs emphasizing that the lawsuit is the main source for news stories describing plutonium contamination at the Paducah plant. Possibly the allegations in the lawsuit will prove to be true, but at this point most of the claims remain unproven. In at least one instance — a story in The Washington Post that included descriptions of nuclear warheads being dismantled under cover of darkness at the gaseous diffusion plant — it appears the charges were off the mark.

However, it's indisputable that recycled uranium containing traces of plutonium was shipped to the Paducah plant from the mid-1950s to the mid-1970s. A number of current and former plant workers have said — and we believe — that the employees were not informed of the presence of the plutonium. The crucial unanswered question is whether workers were exposed to dangerous levels of transuranic metals, and, if so, whether they suffered health problems as a result. It's up to the Department of Energy and Congress to provide a full and timely answer to this question. Our view is that the government is morally obligated to reveal the truth, and to make amends to the workers and the community if safety was sacrificed to the demands of the Cold War.

But, above all, let's stick to the known facts. What we already know should offer some reassurance to those who fear the plant is giving off a deadly glow.

For instance, there is this fact: Since 1988, state officials have monitored the air and water in the vicinity of the plant. The monitoring program includes 10 wells, 31 surface locations and six air sampling stations. State officials have occasionally detected traces of plutonium in the environment, but at levels that posed no health threat to humans.

For more than a decade, the DOE has tested workers for exposure to plutonium, and hasn't detected the radioactive metal.

Potential environmental hazards associated with the plant are well known and well documented. Over the past 10 years, the Environmental Protection Agency has been dealing with groundwater contamination caused by non-radioactive chemicals used at the plant.

We hope that informed concern — not fear or anti-nuclear zealotry — will control the public's response to the allegations of unsafe conditions at the uranium enrichment plant. Gov. Patton has done the community and the plant employees a service by putting the safety issues in perspective.

The Paducah Sun
08/13/99 – P. A1

Workers with concerns can call DOE line

The new investigation into conditions at the Paducah Gaseous Diffusion Plant will begin Tuesday, led by the U.S. Department of Energy's Office of Oversight.

The U.S. Environmental Protection Agency, the Kentucky Cabinet for Natural Resources and the Nuclear Regulatory Commission will assist.

Current and former workers may report concerns by calling the DOE workers' compensation initiative at 877-447-9756. Although the call will be answered by a case worker, anonymous information will be accepted.

However, officials prefer callers to identify themselves so that follow-up questions can be asked, if necessary.

Public fires first round of questions at officials

By Bill Bartleman
The Paducah Sun

There were plenty of questions and few answers for the 110 people who attended a meeting Monday night to discuss radiation contamination at the Paducah Gaseous Diffusion Plant.

About a dozen people spoke and most asked questions that were specific to their individual health concerns or health problems with family members.

Dr. David Michaels, the U.S. Department of Energy's assistant secretary of environment, safety and health, said he could not answer specific questions but promised that an extensive investigation will be conducted to determine how contamination from the plant has affected the

Please see **PUBLIC** / 12A

Public fires first round of questions

Continued from 1A

health of workers, their families and nearby residents.

"We believe that if DOE bears the responsibility, then DOE should step up to the plate and take that responsibility on," Michaels said near the end of the two-hour meeting at Heath High School.

Michaels said the investigation will be a two-step process. "First, we will look at whether there are diseases that would not have occurred if the DOE plant had not been here. Then if we do find such cases, we will determine what the compensation should be."

Michaels said the meeting was called to solicit community comments and concerns about recent news stories that indicated that plutonium was processed at the plant without workers' knowledge and without taking proper safety precautions.

Michaels said he would report concerns directly to U.S. Energy Secretary Bill Richardson, who plans to visit Paducah soon.

Chester Hall worked at the plant as an electrician and wanted to know if contamination on his body and clothing could have affected members of his family.

"I was exposed to everything out there because I worked in every building but didn't have protective clothing," Hall said. "I wore my own clothes. My wife died of cancer, and I want to know if I could have taken contamination home that caused her to be ill."

He was told that determining the cause of cancer is difficult but that efforts will be made to address that in the investigation that could begin as early as next week.

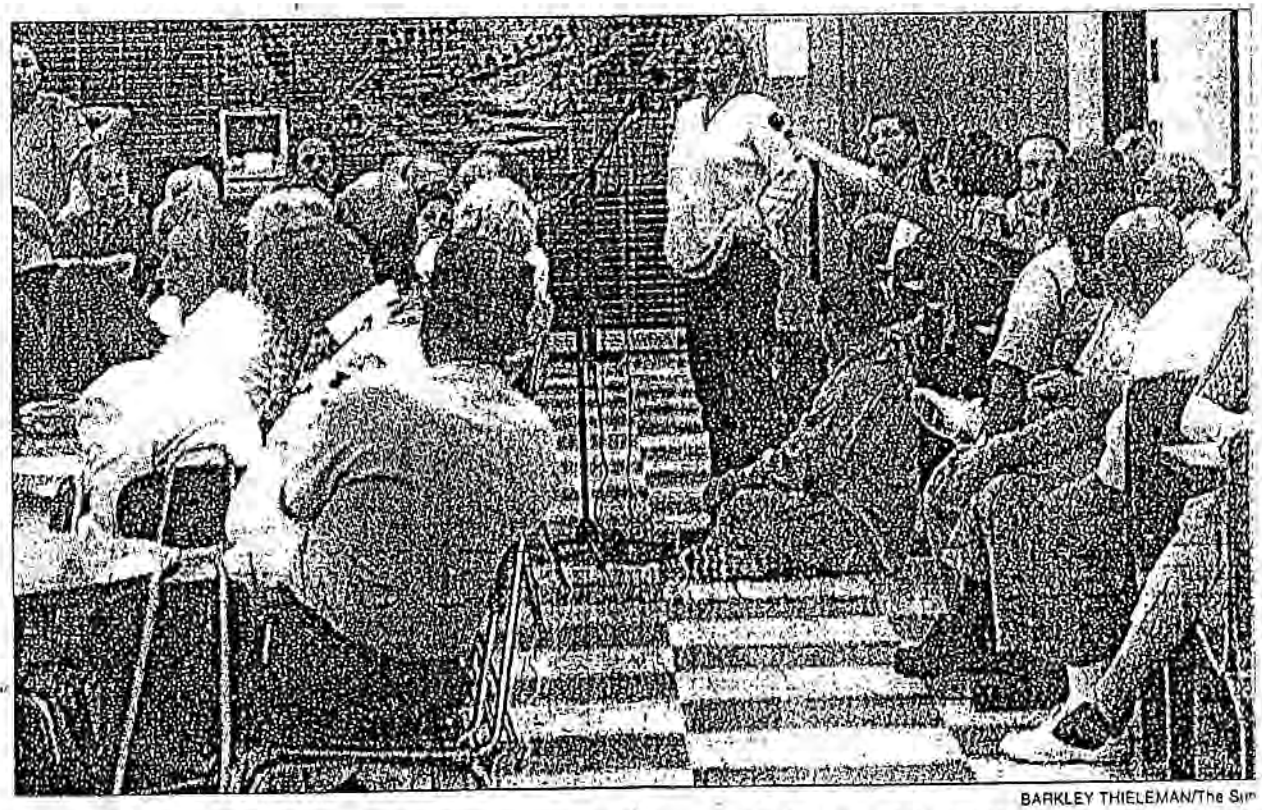
John Tillson wanted to know whether employees and former employees could voice their concerns about conditions at the plant without fear of retribution from DOE or the United States Enrichment Corp., which currently operates the plant.

Tillson claimed he was fired because he was a "whistle-blower" who complained about conditions when he worked there in 1994 and '95. He said his complaints were ignored.

Michaels said that one of his jobs as assistant energy secretary is to establish a procedure for protecting whistle-blowers. He said that procedure should be in place in two or three months.

Two nearby residents reported illnesses in their families and wanted to know if the illnesses could have been been caused by wells that were contaminated from runoff from the plant. The wells were closed in 1988, and DOE paid to have public water supplied to their homes.

They were told that studying the health effects of nearby residents will be part of the investigation.



BARKLEY THIELEMAN/The Sun

Time for questions: Nita Bean Rose tells her story during a public meeting Monday night at Heath High School about problems her father had at the Paducah Gaseous Diffusion Plant.

▼ Prior DOE Environmental Efforts

Here is how operators of the Paducah Gaseous Diffusion Plant have dealt with prior claims of contamination, before Monday's acknowledgement that workers were exposed to "trace amounts" of plutonium:

■ The Department of Energy extended city water service to several area residents living west, north and east of the plant, after their wells were discovered to be contaminated.

A program of pumping and treating a contaminated plume of groundwater was started, and warning signs were placed at nearby creeks that are contaminated. In May 1998, DOE was still investigating sources of groundwater contamination.

Three weeks ago, U.S. Energy Secretary Bill Richardson said the Clinton administration would support legislation that could make current and former plant employees eligible for work-related benefits. Under the legislation, workers who suffer from chronic beryllium disease would be eligible for federal workers' compensation benefits. Beryllium is a rare chemical associated with several metallic alloys used in atomic weapons; it causes lung-related illnesses.

A federal task force also was expected to look into adding other illnesses such as radiation-induced cancers and asbestosis to the eligibility list.

Other actions:

■ A plan that would continue to store 28,351 metal cylinders of depleted uranium hexafluoride stacked at 13 locations around the plant and convert them into oxide, metal and fluorine products.

■ Trying to stop seepage of the cleaning solvent trichloroethylene from the plant into groundwater.

■ Using a system of filters known as "lasagna" to remove trichloroethylene from a plot of ground.

■ Treating, storing and disposing of 360,000 cubic feet of waste. The plan involves "Vortec" soil vitrification — using very high heat to convert contaminated dirt into glass.

The Courier-Journal

TT NEWSPAPER LOUISVILLE, KENTUCKY SUNDAY, AUGUST 15, 1999 • $1

Firm knew of tainted ground water

Records show Union Carbide disregarded it

By JAMES MALONE
The Courier-Journal

PEVIL, Ky. — In 1977, the company running the Paducah uranium-enrichment plant found evidence that nuclear waste might be contaminating ground water in the area.

But Union Carbide didn't tell the plant's neighbors, who drew their drinking water from wells, that they might be in danger. Nor did it investigate to find out why radiation levels were elevated.

Eleven years passed before the public found out. The news emerged only after the local health department tested residential wells and discovered two tainted with a rare radioactive metal, technetium-99.

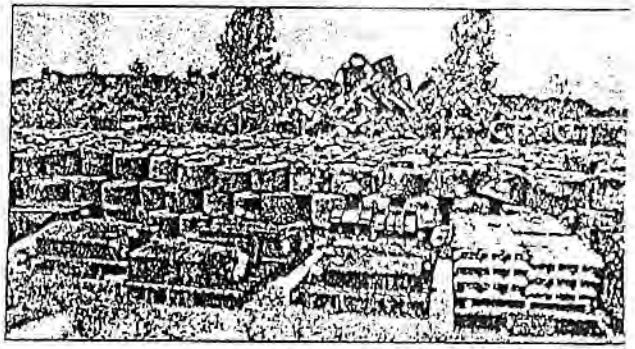
That delay, outlined in a document contained in a lawsuit filed by residents in 1997, has provided new ammunition for critics who say that the U.S. Department of Energy's subsequent cleanup of the plant and its surroundings — which has so far cost $390 million — has moved too slowly.

The new information follows allegations, made in a lawsuit filed under seal in June by three current plant employees, that workers may have been exposed without their knowledge to plutonium and other highly radioactive elements while processing recycled nuclear fuel from 1953 to 1975. The disclosure of the suit's claims last week has prompted additional complaints that the Energy Department has failed to adequately protect the health of former employees.

In 1993, Congress mandated comprehensive health studies at all of the department's nuclear facilities, but medical exams of former Paducah workers only started this year.

"We (historically) had asked about testing," said David Fuller, president of Local 3-350 of the Paper, Allied Industrial, Chemical and Energy Workers Union at the plant. "For what-

See FIRM
Page 12, col. 1, this section



BY JIM ROSHAN, SPECIAL TO THE COURIER-JOURNAL

Radioactive scrap is piled up at the United States Enrichment Corp. plant in Paducah.

...reason, they didn't (do it).".

Referr... to the possible plutonium ...posu... ...ller said he thinks test... should have been done earlier in ...ducah, "especially in light of ...ngs they knew and things I don't ...l like I knew."

When the Paducah Gaseous Diffu... Plant opened in 1952, it created ...usands of jobs and turned this ...stern Kentucky city into a boom ...n. Over the years, it enabled ...sands of families to buy homes ...send their children to college.

...t now its legacy is quite differ... workers who may have been poi...d on the job, and an environ...al disaster.

... 2.5-mile-long underground ...e of water contaminated with ...er-causing solvents and tech...um has flowed to within a few ...dred feet of the Ohio River. And ... from public view, the sprawling ...-acre plant has towering piles of ...active scrap metal and miles of ...ng steel cylinders, about 37,000 ...ll, each containing about 14 tons ...ranium production waste.

THE DISCOVERY of contami...d wells in 1988 spurred the feder... government to extend municipal ...ter lines to homes that had pollut...d wells, and to begin studying the ...tent of the contamination and how ... clean it up.

A few months later, a technician in ...overnment study prepared a re...rt on past groundwater monitoring ...plant operators.

He concluded that the 1977 find...gs, plus the results of additional ...oundwater tests in 1980 and 1983, ...early show that elevated levels of ...dioactivity) worthy of investigation ...re present during this period."

A 1988 Energy Department memo, ...so filed as part of the residents' ...wsuit, made a similar point: "Lack ...f follow-up sampling of an off-site ...sidential well may have resulted in ...ilure to identify off-site contamina...on," the memo said. "A one-time ...mpling event on August 18, 1983, ...owed (radioactivity) seven times ...e (state) standard for drinking wa...r." The memo noted that plant offi...ns did not retest the well.

The Energy Department on Friday ...d it had no immediate comment ...n these documents.

As with the 1977 well findings, the ...ublic also was not told of plutonium ...ontamination of ditches that drain ...torm water from the plant property ...nto creeks off the site.

The presence of plutonium, which ...s thousands of times more radioac...ive than uranium, was disclosed in a ...990 study by Martin Marietta, but it ...vas not filed in a public document ...oom near the plant, as it should ...ave been, until The Courier-Journal ...sked about it last week.

Some of the pollution in the ...litches stems from a ruptured sump...ump pipe, which was discovered in ...986 and leaked solvents and radio...ctive metals — technetium, neptun...um and plutonium.

But Energy Department spokes...nan Steven Wyatt said that, "as far ...s we know," plutonium is not in the ...nvironment off the plant property.

When the plutonium "hot spots" ...vere discovered in a drainage ditch, "we addressed that by diverting wa...er," Wyatt said. He said the plutoni...um was not removed and was ...hought to be in no danger of migrat...ng without the water to carry it.

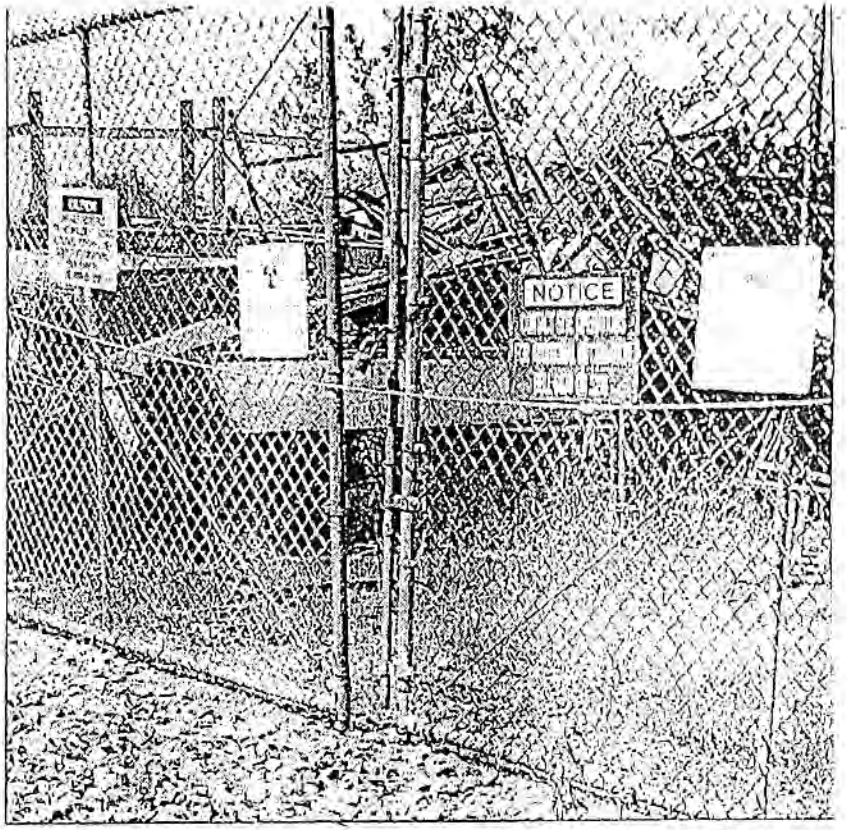
In its Paducah cleanup, the Energy Department has set its priorities on a "risk-based approach," Wyatt said. That means the government took actions against what it saw as the greatest exposure problem, not necessarily the most potentially harmful radioactive element, he said.

The highest priority was assigned to replacing the ground water tainted by plant leaks and discharges, Wyatt said.

THE GOVERNMENT, at a cost exceeding $1 million, paid to run waterlines to 100 homes and businesses around the plant to replace the well-water supply.

In 1995, the Energy Department's environmental contractor began pumping the contaminated ground water to the surface and extracting the solvents and radioactive isotopes. As of last March, it had treated 550 million gallons of water.

It also is trying experimental technology to "shock" the wastes out using electrical current.



BY JIM ROSHAN, SPECIAL TO THE COURIER-JOURNAL

This pile of radioactive scrap is a typical sight at the Paducah plant's 4,300-acre site.

The government also has approved plans to build an incinerator to melt hazardous wastes into a hard, glass-like substance, and it has tentatively approved a proposal to reprocess the waste uranium stored in cylinders into a more manageable form for possible reuse.

But critics say the cleanup has made little headway. "It's a sham if we've spent $400 million out there since 1988; we've not gotten $400 million worth of cleanup," said Mark Donham, an environmental activist who is a member of a citizen advisory board on the cleanup. "We need a congressional investigation about what has been done with all this money."

Donham said he thinks one of the reasons for the slow pace of the cleanup is that a key plant building would have to be closed in order to get to the source of some major pollution problems. The C-400 Building is a key plantwide decontamination and washing facility. "That means shutting down the plant," Donham said.

'OSE DISCLOSURES have b reported to the Site Specific Advisory Board, a group of local citizens that makes recommendations about the environmental cleanup, he said.

Ronald Lamb, an area resident who in 1990 unsuccessfully sued a former plant operator for allegedly polluting his well, said he has not seen any significant cleanup progress.

"They can't clean it up as long as there are still secrets out there," Lamb said. "I still don't think they have told the whole truth about what they have. It's time for them to be honest with the public."

The Energy Department defends the pace of its work, saying it has been hampered by incomplete records of where waste was dumped or stored. When a study is undertaken of a particular waste area, new problems such as uncharted barrels and materials are frequently discovered, department officials say. That means additional studies must be done to find the wastes' origin and toxicity.

But overall, they say they have made significant strides in finding out what's in the ground and water.

This summer, the department announced it was accelerating its cleanup "after an intensive evaluation" of the project by the department, federal and state environmental regulators and Bechtel-Jacobs, the Energy Department's environmental contractor.

In a recent newsletter, the agency said that its people "will be spending less time on paperwork and more time on field work. . . . The change focused on how best to move from a period of data collection and analysis to one where the pace of cleanup work would increase."

But while the publication said the new strategy is expected to reduce the time to complete cleanup work by years, Energy Department officials last week declined to comment on charges made by the lawyer who filed the whistle-blower (.uit in June. Citing Energy Department documents, the lawyer, Joseph Egan, said in a memo to state officials last year that the target date to end the cleanup has been pushed back from 2007 to 2040.

Kenny Thomas of Kevil, who worked at the Paducah plant for four to five years in the mid-1980s, recalled using a jackhammer to rip the floor out of one of the manufacturing buildings.

The floor chunks tested positive for radioactivity and the work site swirled with dust, he said. Thomas said he breathed the dust for months and was never told it was unsafe. He said he was not given a respirator.

"THEY TESTED my urine in the morning, at noon and in the evening," Thomas said. "They never told me why."

After several months, Thomas, now 50, said that his joints and muscles began hurting and that he had constant headaches. He also suffered nausea and had chronic sinus problems, he said.

He eventually filed for, and said he received, a workers' compensation settlement.

While Thomas' account of working conditions suggests he and other workers could have been exposed to radiation, there had never been a comprehensive health study of present and former workers done at Paducah until recently — despite a 1993 law mandating such studies.

The Energy Department was unable to explain why studies had been done at some of the department's other nuclear facilities but not at Paducah. "That I can't tell you," said Wyatt, the department spokesman.

Fuller, the local union president, said he had been told by the department that there was no reason to test Paducah workers, since workers at a sister uranium enrichment plant in Portsmouth, Ohio, had been tested.

A National Institute of Occupational Safety and Health mortality study of Portsmouth Gaseous Diffusion Plant workers from 1992-96 concluded that there were no "significantly elevated" ratios observed for specific causes of death.

But over the next four years, about 2,000 former Paducah workers will get free medical exams to detect workplace-associated illnesses, such as those caused by exposure to radiation or asbestos.

TO RELIABLY TRACK historical exposures to radiation and establish a link to illnesses requires a bioassay, an analysis of urine or tissue from fat deposits and internal organs, such as the kidneys and l

Mark Griffon, a University of Massachusetts at Lowell health physicist who is participating in the new study, said he has been told that some specific plutonium testing of Paducah workers' urine had been conducted in recent years and that it showed no current exposure.

"One of the time frames of interest would be during the time they were actually handling that fuel" contaminated with plutonium and other radioactive metals, "and what the urinalysis program involved back then," Griffon said. "The question is were they testing for plutonium, neptunium and other things. I'd like to see somewhere where they even addressed the issue."

Griffon also said he wants to know what type of testing inside production facilities was done and whether it simply accounted for uranium, or whether it included monitoring for other, more harmful nuclear isotopes.

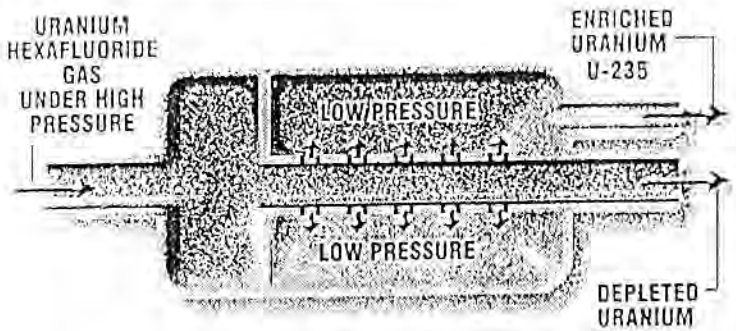
"We will push to see if there was a program in place" he said.

The Paper, Allied Industrial, Chemical and Energy Workers Union, in a letter last week to Energy Secretary Bill Richardson, called for the government to "come clean with all of the information it possesses or can obtain from contractors about relevant worker exposure and hazards."

GASEOUS DIFFUSION PLANT

The Paducah plant transforms natural uranium into fuel for nuclear reactors. At first, the enriched uranium it produced was used to make nuclear weapons. Now it's used in commercial nuclear reactors.

HOW IT WORKS



Uranium found in nature contains two isotopes, or types: U-235 and U-238. Only the U-235 isotope is fissionable — meaning it can be split apart to generate heat. Enrichment is the process of increasing the concentration of U-235 and decreasing that of U-238.

The level of U-235 in natural uranium is about 0.7 percent. It needs to be between 4 percent and 5 percent to power a commercial nuclear reactor.

In the gaseous diffusion process, uranium hexafluoride gas is fed under high pressure through a series of porous tubes with microscopic openings. The U-235 isotope is lighter than U-238, so U-235 tends to strike the walls of the tubes and pass through the openings more often than U-238. In this way, gas enriched with a higher concentration of U-235 is separated from gas with a lower level.

The Paducah plant enriches uranium up to a concentration of 2.75 percent U-235, then ships it to a similar plant in Portsmouth, Ohio, where it is further enriched to 5 percent.

SOURCE: U.S. Enrichment Corp.

MAKING COMMERCIAL NUCLEAR FUEL

MINING

Uranium ore is mined from the earth.

MILLING

Uranium ore is processed to produce a form of uranium known as "yellowcake."

CONVERSION

Yellowcake is converted to uranium hexafluoride.

ENRICHMENT

This step increases the concentration of the isotope U-235 from its naturally occurring level of 0.7% to higher levels required for nuclear reactors-about 4%-5%.

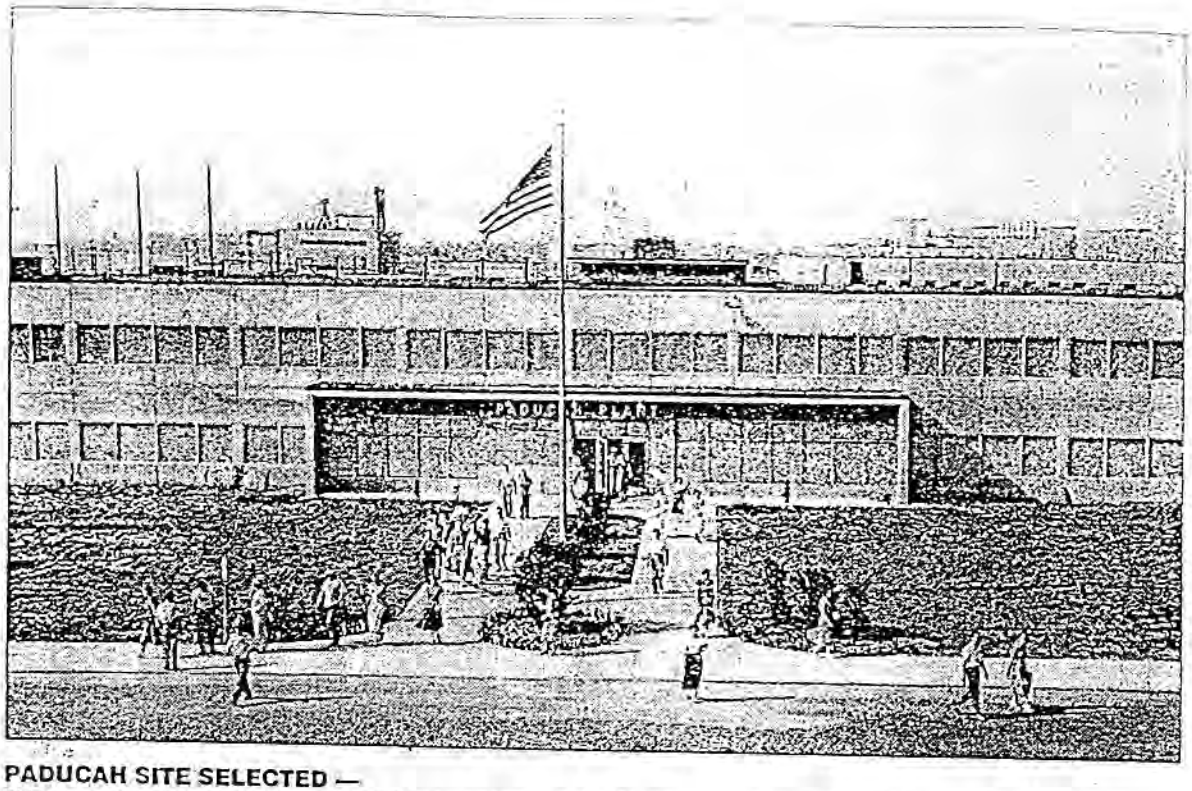
FABRICATION

Enriched uranium is converted into uranium dioxide, formed into solid cylindrical pellets, sealed in metal fuel rods and bundled into fuel assemblies.

POWER PRODUCTION

Fuel assemblies are loaded into nuclear reactors where the U-235 fissions, producing heat and steam used to generate electricity.

PLANT'S HISTORY



PADUCAH SITE SELECTED —

■ **December 1950:** With the Cold War under way, the U.S. government, needing to expand its capacity to make nuclear weapons, selects the site of the former Kentucky Ordnance Works, which made dynamite during World War II, for a plant to enrich uranium for use in manufacturing nuclear bombs.

Speculation at the time is that Vice President Alben Barkley helped win the plant for his hometown. Within a year, Paducah's population swells from 32,000 to 50,000 to provide the 12,000 construction workers for the $800 million project.

1,600 WORKERS —

■ **September 1952:** Production begins at plant, which has an initial work force of about 1,600. It's operated by Carbide and Carbon Chemicals Co. (now Union Carbide).

NUCLEAR REACTOR MATERIAL —

■ **Mid-1960s:** Plant shifts from enriching uranium for nuclear bombs to supplying the material to commercial nuclear reactors for generating electricity.

RADIOACTIVITY FOUND —

■ **1977:** Elevated levels of radioactivity are first found in tests of groundwater around the plant, according to a technician's memorandum in the files of a later lawsuit. Tests in 1980, 1983, 1985 and 1988 showed increasing radioactivity. Results were not reported to public.

NEW OPERATOR —

■ **April 1984:** Martin Marietta Energy Systems Inc. takes over operating plant for U.S. Department of Energy.

CONTAMINATED GROUNDWATER —

■ **June 1988:** Two reports, by a congressional investigative panel and a public-interest group, say groundwater under the plant is contaminated with radioactive waste and the cancer-causing cleaning solvent, trichloroethylene. They also say that uranium was released into Big Bayou Creek and Little Bayou Creek in 1984-85 and that the Environmental Protection Agency had found the plant out of compliance with hazardous-waste landfill laws in 1987.

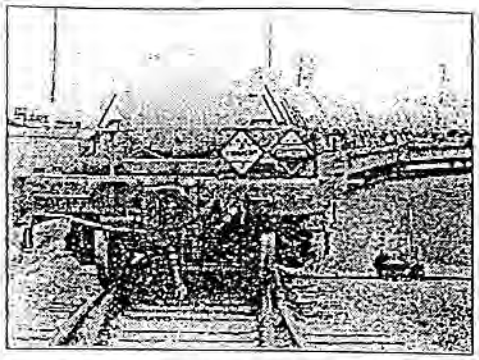
TRACES OF TECHNETIUM —

■ **August 1988:** A Purchase District Health Department worker tests wells of about 25 homes near the plant in response to a woman "who always wondered if there was something radioactive in her water," according to the worker, Bill Snyder. "We almost laughed about it." But the tests found small amounts of technetium, a radioactive metal, in two of the wells and up to 75 times the allowable level of trichloroethylene in four wells serving five homes. Public water lines are subsequently extended to homes with polluted wells.

At the time, a plant spokeswoman told The Courier-Journal that the plant was the likely source of the pollution and that technetium was a by-product of the process to re-enrich used nuclear reactor fuel rods, which the plant had done from the 1950s to the 1970s.

WARNING ON FISH —

■ **1989:** State warns against eating fish from a nearby stream because of pollution by cancer-causing PCBs from plant. Plant also reports big increase in uranium runoff into surface waters, apparently from a plant scrapyard, and release of uranium into air. Also, uranium-contaminated concrete rubble was hauled from the plant to 35 locations in McCracken and Ballard counties.



ENVIRONMENTAL REPORT —

■ **1992:** Department of Energy announces it will pay to extend municipal water lines to about 30 more homes near the plant. Contaminated groundwater under the plant is estimated to be moving north and northeast toward Ohio River at 200 to 2,000 feet per year.

A report on environmental issues at the plant states that from 1953 to 1975, enrichment of spent nuclear fuel rods, called "reactor tails," resulted in the delivery of small amounts of radioactive plutonium, neptunium and technetium to the plant. It says some of these contaminants were released into the air or the plant drainage system or buried on-site in a landfill.

PLANT CHANGES HANDS —

■ **July 1993:** United States Enrichment Corp. (USEC) assumes responsibility for the plant and contracts with a subsidiary of Martin Marietta to operate the plant.

CHEMICALS EXTRACTED —

■ **1995:** Department of Energy contractor starts pumping and extracting chemicals from the underground plume of contaminated groundwater. By March 1999, 550 million gallons of water are treated.

COMPANIES MERGE —

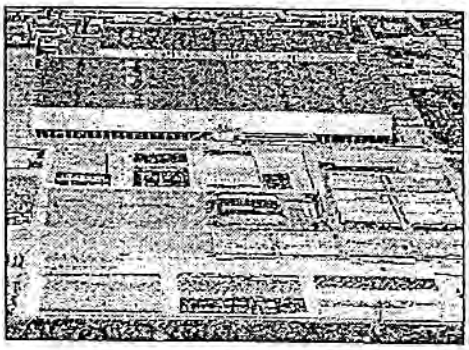
■ **June 1995:** A merger of Martin Marietta and Lockheed creates Lockheed Martin Corp., which continues to operate the plant.

TRACES OF PLUTONIUM —

■ **1996:** The Courier-Journal reports that small amounts of plutonium were found in deer killed in 1993 and 1994 in the nearby Wildlife Management Area and that a trace also was found in a residential drinking water well in 1990.

PRIVATIZATION —

■ **March 1997:** USEC is privatized and becomes USEC Inc., an investor-owned corporation.



CLASS ACTION LAWSUIT —

■ **October 1997:** Several people living around the plant file a class action lawsuit, claiming the plant had deceived and misled them about the extent of off-site pollution.

NEW MANAGEMENT —

■ **May 1999:** USEC takes over direct operation of plant.

EXPOSURE TO PLUTONIUM? —

■ **August 1999:** Reports surface that a lawsuit filed under seal by three health physicists at the plant alleges that workers were unknowingly exposed to plutonium and other highly radioactive contaminants when the plant reprocessed used nuclear fuel rods from the mid-1950s to the mid-1970s.

The Courier-Journal
Kentucky
www.courier-journal.com

Wednesday, August 11, 1999

Plutonium documents discovered

Radioactive metal found in 9 samples

By JAMES MALONE
The Courier-Journal

KEVIL, Ky. — After an extensive search yesterday, a contractor for the U.S. Department of Energy found what a lawsuit asserts were two "missing" documents describing plutonium contamination outside the uranium-enrichment plant near Paducah.

The documents were part of a 1990 study of contamination released from the Paducah Gaseous Diffusion Plant.

A sealed whistle-blower lawsuit filed in federal court in June by the Natural Resources Defense Council and three health physicists who work at the plant alleges that key attachments to a 1990 study, which may show plutonium contamination, have never appeared for public review.

But last night, in response to questions from The Courier-Journal, officials with Bechtel-Jacobs, the plant's environmental contractor, said they had located both missing documents.

One apparently should have been filed long ago but, for unexplained reasons, never was. A copy was faxed to the newspaper last night.

It showed plutonium in at least nine samples of water from ditches that drain storm water from the plant property into creeks off the site.

The other, a radiological survey of creeks near the plant, for some reason never underwent a required "technical" review to clear its release for public reading rooms, said Debbie Wattier, a company spokeswoman.

Bechtel-Jacobs expects to begin the technical review today, Wattier said.

The lawsuit alleges that thousands of unsuspecting workers at the government plant were exposed to dust containing plutonium and other radioactive metals from the mid-1950s to

See SEARCH
Page 3, col. 1, this section

Search turns up two missing documents

Continued from Page B 1

the mid-1970s. The defendants in the suit are two companies that formerly ran the plant for the government.

The documents describing the plutonium contamination were supposed to be available in a reading room near the enrichment plant where public records about the operation and environmental assessments are available, the lawsuit said.

Plutonium is 100,000 times as radioactive as the uranium processed at the plant. It was an impurity in about 102,000 tons of spent fuel from nuclear-weapons reactors that were processed at the Paducah plant over a span of 28 or 29 years. The plutonium and other radioactive products extracted during the process of re-energizing the fuel have leaked off the site and have prompted lawsuits and a costly cleanup.

Yesterday a reporter who looked in a binder where the documents were supposed to be found in their place pages marked "To Come."

Staff members searched unsuccessfully for the documents yesterday afternoon, but a search later in the day apparently turned them up.

Workers at the plant say they were not told about the contamination, according to documents in the lawsuit.

"The notion that workers would work in this environment totally unprotected for years on end is one which is nearly incomprehensible," wrote Thomas Cochran, a nuclear expert with the Natural Resources Defense Council in an affidavit filed with the suit.

And an environmental activist, Mark Donham of nearby Brookport, Ill., who has studied the Paducah plant for years, disputed the government's assertions made in press conferences Monday that they had disclosed the plutonium's presence in records and reports. Although traces of plutonium have shown up in small printed tables of test results, there has not been a public discussion of it.

"They do not disclose freely anything about plutonium," said Donham, who has raised the issue in written comments on environmental assessments. "Any time you bring it up, they try to downplay it."

The suit alleges that Lockheed-Martin, the company that had both the uranium-enrichment and the environmental-cleanup contracts until this year, falsely told the Department of Energy that the plant and surrounding area were cleaner and safer than tests showed. The plant is now operated by U.S. Enrichment Corp., a government-chartered private company.

By asserting that health and safety goals had been reached, Lockheed Martin could collect millions of dollars above its base fees, the suit alleged.

"Repeatedly understating the pollution at the plant may well have cost the plant a priority spot to seek federal cleanup money, Cochran, of the Natural Resources Defense Council, said in his affidavit.

One of the missing documents, according to his affidavit, is "Radiological Walkover Survey of Little Bayou Creek, Big Bayou Creek and Plant Ditches." The other report is "Surface Water, Sediment and Stream Bank Sampling, August 1990."

Department of Energy troubleshooter David Michaels, who was dispatched to the Paducah plant by Energy Secretary Bill Richardson, returned to Washington yesterday, according to Steven Wyatt, a DOE spokesman at the plant.

The department said it will send a "high-level team" to investigate allegations that the government and plant managers knew that an unknown amount of plutonium and other radioactive substances was in the plant, but did not tell the work force.

Michaels said Monday that preliminary results of a study done after the suit was filed did not show any imminent health threats to workers or the public.

U.S. Sen. Mitch McConnell is scheduled to tour the plant tomorrow and talk with workers privately and with reporters.

Louisville Courier Journal
8/14/99 - P. A.1

Radioactive metals may have left Paducah plant

Critics blame lack of screening, fear public threat

By JOBY WARRICK
The Washington Post

It was one of the most secretive missions at a factory that was all about secrecy: Nuclear warheads, retired from service and destined for the junkyard, were trucked at night to the Paducah Gaseous Diffusion Plant to be dismantled, hacked into pieces and buried.

Workers used hammers and acetylene torches to strip away gold and other metals from the warheads' corrosion-proof plating and circuitry. Useless parts were dumped into trenches. But the gold — some of it radioactive — was melted and molded into ingots.

Exactly what happened next is one of the most intriguing questions to arise from a workers' lawsuit against the former operators of the U.S.-owned uranium plant in Western Kentucky. Three employees contend that the plant failed for years to properly screen gold and other metals for radioactivity. Some metals, they say, may have been highly radioactive when they left Paducah, bound perhaps for private markets.

The claim — based partly on circumstantial evidence — is now being investigated by Department of Energy officials who are also probing the workers' accounts of plutonium contamination and alleged illegal dumping of radioactive waste at the uranium plant.

"It is my belief that these recycled metals were injected into commerce in a contaminated form," Ronald Fowler, a radiation safety technician at the plant, states in documents attached to the suit, which was filed under seal in June. A part of the suit was unsealed Thursday by the Justice Department, but not Fowler's statement.

The investigation comes amid heightened scrutiny of government efforts to recycle valuable metals piling up at more than 16 factories that are part of the U.S. nuclear weapons complex. In the past week, congressional leaders, industry officials and scores of environmental groups have called on the Clinton administration to halt a controversial Department of Energy program that would recycle scrap metal from Paducah and other facilities into products that could end up in household goods or even children's braces.

Opponents' concerns soared this week with disclosures in The Washington Post that plutonium and other highly radioactive metals slipped into the Paducah plant over a 23-year period in shipments of contaminated uranium. The plutonium accumulated over decades in nickel-plated pipes where uranium was processed into fuel for bombs, government documents show. Smaller amounts of tainted uranium went to sister plants at Oak Ridge, Tenn., and Portsmouth, Ohio, records show.

SCRAP NICKEL from those plants is now the primary target of the Energy Department's metal recycling program, launched jointly last year by the federal government, the state of Tennessee and a private contractor, British Nuclear Fuels Ltd. (BNFL).

"If DOE denied or didn't know plutonium was present at Paducah, why should we trust them to release waste from identical production plants into products ranging from intrauterine devices to hip replacements?" asked Wenonah Hauter of the watchdog group Public Citizen, one of 185 organizations to sign a letter to Vice President Al Gore Thursday demanding an end to the program.

Recovering gold and other valuable metals from retired nuclear weapons had been a little-known mission of the government's uranium-enrichment plants over the past five decades. At Paducah, the process began in the 1950s and was conducted under tight security, with heavily armed guards escorting warheads into the plant under cover of darkness.

Garland "Bud" Jenkins, one of three Paducah workers involved in the lawsuit, says he worked for several years in Paducah's metals program recovering gold, lead, aluminum and nickel from nuclear weapons and production equipment.

"We melted the gold flakes in a furnace to create gold bars," Jenkins said in court documents that remain sealed. "The gold was never surveyed radiologically prior to its release, to my knowledge."

Jenkins also says he never saw tests performed on nickel and aluminum ingots that were hauled out of the plant in trucks. In later years, when plant managers did begin screening the metals, many were found to be contaminated, he said. Hundreds of nickel ingots are still stored at the plant, too tainted to go anywhere, he said.

A PLANT report included in the lawsuit filings may shed light on the degree of contamination in the gold. In a radiological survey of the plant last year, technicians discovered gold flakes inside an old ingot mold used for gold recovery. The fish scale-sized flakes were tested and found to emit radiation at a rate of 500 millirems an hour, the report said. By comparison, the average person receives between 200 and 300 millirems each year from all sources, including X-rays, radon gas and cosmic radiation from space.

"If you had a wedding ring made out of those flakes you'd be getting twice as much radiation in an hour as most people get in a year," said Joseph R. Egan, a lawyer representing the employees.

Fowler, the radiation safety technician, said he filed a report on the discovery of the radioactive gold in December but received no response from the plant's management. Nothing further was done to investigate "the possibility that (the plant) may have contaminated the nation's gold supply" at Fort Knox, he said.

Plant officials shed little light on the process. U.S. Enrichment Corp., the plant's current operator, says gold recovery at Paducah was the the Energy Department's responsibility.

Department officials, in a response to written questions from The Post, acknowledged that gold was recovered from nuclear weapons at Paducah. But, "since these actions occurred many years ago, information regarding their past dispositions is not readily available," the statement said.

IN A LETTER to Rep. John D. Dingell, D-Mich., department officials strongly defended their efforts to salvage nickel and other valuable metals that have been piling up at nuclear complex sites for years.

"Let me assure you that the safety of the public and workers and compliance with state and federal regulations are of paramount importance," said Undersecretary of Energy T.J. Glauthier. Glauthier said BNFL's license requires that "any metals released for unrestricted use will not pose a risk to human health or the environment."

The recycling program, announced in 1996 by Gore as part of his "reinventing government" initiative, was touted at the time as a "win-win" deal for the environment, industry and taxpayers. BNFL, which was awarded the recycling contract in a non-competitive bid, has already begun recycling some of the 100,000 tons of radioactively contaminated metal that were once part of the defunct K-25 complex at Oak Ridge, the world's first full-scale uranium enrichment plant.

According to a Department of Energy publication, there are 9,700 tons of nickel, worth $37 million, at the Paducah plant. The plant also has 20 tons of stainless steel, 40 tons of copper, 3,200 tons of aluminum and 31,500 tons of iron, most of which can be sold.

Most of the metal was removed from the plant's production facilities in 1974-83 during a major maintenance upgrade.

KENTUCKY regulators are reviewing the recycling plan, the Energy Department said. Public comment on the plan is supposed to begin in September.

Purifying nickel is technically difficult because the radioactive contamination extends below the surface of the metal. Energy Department officials say BNFL was awarded the contract because it has developed a unique technology that can safely remove nearly all of the contaminants.

But opponents say the technology has never been proven on such a large scale. Moreover, they note, there are no federal standards for releasing contaminated metal into the marketplace. Previous attempts to set such standards in the early 1990s were abandoned because of public opposition.

And, opponents add, the lack of restrictions on the recycled metal leaves the public in the dark about which products may have come from contaminated scrap. Even if radioactivity levels are low, consumers are entitled to an informed choice when buying materials that might be used by children, activists said.

"THE DOE has admitted they can't protect the safety of their workers and misled them," said Robert Wages, executive vice president of the Paper, Allied-Industrial, Chemical & Energy Workers International Union. "Now DOE wants to dump radioactive metals into everything from baby rattles to zippers . . . and tell us not to worry."

Because there are no federal standards, the Energy Department's recycling program relies on the state of Tennessee to set guidelines and regulate the process. In June, a federal judge sharply criticized the arrangement, saying the DOE had effectively thwarted public debate of an issue in which "the potential for environmental harm is great."

But U.S. District Judge Gladys Kessler rejected an attempt by labor and environmental groups to halt the recycling program, citing a law that prohibits courts from delaying federal cleanup of contaminated sites. Still, the judge accused the Energy Department of "startling and worrisome" behavior in its alleged attempts to avoid federal oversight and public review.

"There has been no opportunity at all for public scrutiny or input on such a matter of such grave importance," Kessler wrote in her opinion.

Staff writer James Malone contributed to this story.

Newscast: SUNDAY - Last Updated: 08/15/99
Homepage: NewsChannel 6
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- •X-WORKER TALKS - BACKLASH
- •BROS SHOOTING - BROTHERS
- •ARMD RBRY CAPE - ROBBERY
- •ENGINE SMOKING - PLANE
- •CLINTON HUNT - HOUSE
- •STRAW POLL RX - STRAW
- •NO-HATE SPEECH - JACKSON
- •ANTI JEW VANDL - VANDALS
- •DALAI LAMA NY - DALAI-NY
- •ROYAL VACATION - ROYALS
- •WEDDING SPONSR - SPONSORD
- •NCFL BAD WX - STORMS
- •JAPAN FLOODS - FLOODS
- • - CHI-STL
- • - BUD-GLEN
- •MSU Football - JUSTIN
- •Pee Wee Reese - PEEWEE-A
- • - PEEWEE-B
- •Tampa Dog show - TOP-DOG

NewsChannel 6
Subject: X-WORKER TALKS
Newscast: SUNDAY - Air Date: 08/15/99
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One week ago today, a Washington Post investigation revealed workers at Paducah's Gaseous Diffusion Plant endured years of plutonium exposure.
Release of the news raised serious ethical and health questions from both plant employees and residents in the area.
But one former worker, a plant employee of 36 years, speaks out against the lawsuit.
He claims all of the hype is intentional, and says he wants to see an unbiased investigation which will bring out the truth.
GENE SANDERS, 12:33 NOW THAT THERE IS TO BE AN INVESTIGATION IT SHOULD EXAMINE EVERY NOOK AND CRANNY, EVERY SCRAP OF PAPER, EVERY MEMORY AVAILABLE AND PUBLICLY DISCLOSE HOW MUCH, IF ANY HARMFUL RADIATION THERE WAS.
Tonight on NewsChannel 6 at ten, find out why this former employee is speaking out about one of the plaintiffs bringing the lawsuit.

NewsChannel 6

Newscast: MONDAY - Last Updated: 08/16/99
Homepage: NewsChannel 6
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- FOOD CHAIN CONTAMINATION - WILDLIFE
- WATER MERGER VOTE - WATERMTG
- INMATE DEATH INVESTIGATION - INMATE
- DONATIONS LEGAL - DONATION
- CLASS-ACTION LAWSUIT - STFARM
- Ryder Cup Captains Selected - R-SEL
- Couch's Progress - COUCH
- Outdoors Tip of the Week - PRAC
- Big Ol' Fish - BIG-FISH
- Return of Friday Night Flights - FLIGHTS
- KENTUCKY STATE FAIR - KY-FAIR

NewsChannel 6
Subject: FOOD CHAIN CONTAMINATION
Newscast: MONDAY - Air Date: 08/16/99
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Past studies of soil, sediment, and water around the plant have revealed chemical contamination. P-C-B's, heavy metals, other chemicals and radioisotopes pollute the environment.
Now, a new study paid for by the U-S Department of Energy, just obtained by Newschannel 6, shows the toxic chemicals are spreading through the food chain.
Ernie Mitchell reviewed the findings and has this report you will see only on NewsChannel 6.
9104\ERNIE MITCHELL \NewsChannel 6
Polychlorinated biphenyls or P-C-B's are linked to cancer.
This report states the chemicals can be toxic at high doses and at much lower doses with long-term exposure.
This report shows the toxic waste is making its way off the plant site and up the food chain.
9104\WAYNE DAVIS \Kentucky Fish and Wildlife
9101\Knight Hale
ERNIE, Texas Tech researchers chose the raccoon as their guinea pig because it is an effective indicator of many diseases and environmental contaminants--and because raccoons will eat just about anything. Fish and crayfish are big part of this animal's diet. In an analysis of the raccoons food, researchers found fish contained higher PCB concentrations than other foods including insects, frogs and mussels. Crayfish, rodents, birds could also be contributing to raccoon PCB exposure.
35 WAYNE DAVIS, Levels are not high enough to

cause death to the animals. But it could cause them to not be as healthy as they should be.
43 ERNIE MITCHELL, Researchers found some physiological disturbances evident in the raccoons they trapped. The biggest concern is that the mammals may not reproduce. Researchers trapped raccons last year at the plant site and at the Ballard Wildlife Management Area. Animals from the Ballard site were used as a reference.
– But the scientists found PCB contamination in raccoons from both sites. They believe the Ohio River is a likely source of exposure for the Ballard County coons. PCB residue analysis of fat biopsies revealed that raccoons living in areas close to the east side of the gaseous diffusion plant are exposed to the highest levels of PCBs.
1:15 Ernie Mitchell One sentence in the five page report states "there was some evidence of radiological contamination in some plant site raccoons. However, the report does not determine the source of the the radicactivity. This is not the first time radioactive contimination has been found in animals living around the gaseous diffusion plant.
1:34 ERNIE STANDUP, For at least eight years, they've been killing eight deer a year--two from each of the four side of the plant--and sampling tissue.
1:42 ERNIE MITCHELL, A deer killed in 1993 and and another killed in 1994 showed traces of plutonium. But those results did not set off any alarms at the Kentucky department of fish and wildlife.
2:01 WAYNE DAVIS, It was such an isolated case that it didn't appear to be a major concern, especially at the level that was found.
With the recent revelations that plant workers may have been exposed to plutonium over two decades--radioactivity in animals living around the plant may take on new meaning.
What's next for the raccoons living around the plant site?
The Texas Tech researchers believe more study of the health effects of PBC's on the raccoons is needed.
Thanks Ernie.
Published reports estimate the government has already paid $390-million for cleanup around the plant.

The Paducah Sun

August 10, 1999 www.sunsix.com Since : Vol. 103 • No.

HOLD THE THOUGHT: *The community needs a good recycling program — Letter, 4A*

DOE: No signs of any harm

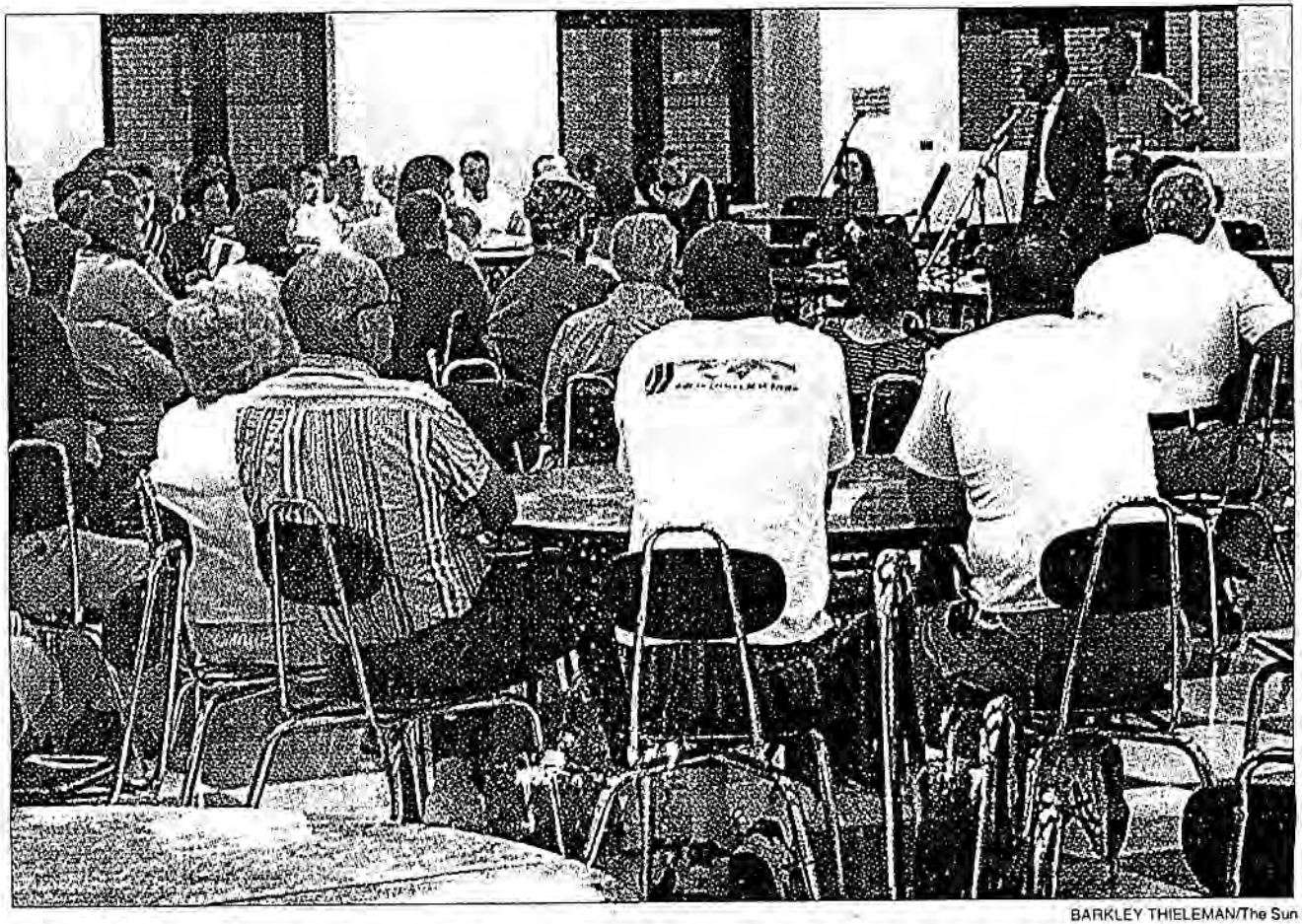
Federal team will open probe next week

By Joe Walker
Business Editor

Trace amounts of highly radioactive plutonium came into Paducah Gaseous Diffusion Plant during roughly a 23-year period as a contaminant in uranium from nuclear reactors, but there is no evidence that the material harmed workers or the public, the Department of Energy said Monday.

For at least the past 10 years, urinalyses and other testing of workers have not shown plutonium, a cancer-causing substance, according to officials of the department and USEC Inc., which took over plant production in 1993. DOE officials said trace quantities of plutonium are occasionally found in sampling around the plant and disclosed in annual

Please see **DOE** / 12A



BARKLEY THIELEMAN/The Sun

Attentive audience: Dr. David Michaels, the DOE assistant secretary of environment, safety and health, addresses a public meeting on the suit alleging plutonium exposure at the Paducah uranium enrichment plant.

DOE sees no signs of plutonium problems at plant

Continued from 1A

environmental reports stored in local reading rooms.

But the Department of Energy did not do a good job of telling workers or the public, said David Michaels, DOE assistant secretary of environment, safety and health.

"I think there's been a real communications problem here, and we want to make that better," Michaels said in a press conference at the plant. He spoke to reporters after talking with workers who said they had never heard of plutonium's being in the facility.

Michaels said a DOE team did a preliminary investigation at the plant in June and found that plutonium was not an "imminent threat" to workers, the public or the environment. Also on June 1, a federal lawsuit was filed on behalf of three workers alleging plutonium contamination.

Michaels acknowledged that Monday's press conference was in response to a Sunday front-page story in The Washington Post that said thousands of plant workers were unknowingly exposed to plutonium brought into the plant from 1953 to 1976. He said the plutonium was a contaminant in residual uranium from nuclear reactors in other cities, shipped to Paducah for recycling as nuclear fuel.

Starting next week, a DOE team will dig more deeply into the issue to see if levels were high enough to harm people and if their health was affected, Michaels said, adding that the probe will cover current and past hazards.

"If people were made sick because of past exposures, we want to know about that, and we want to help them," he said. "... Any exposure to plutonium is too much."

Besides a full DOE investigation, Energy Secretary Bill Richardson pledges an independent probe by the National Academy of Sciences of plant exposures and related health problems. He also will ask the White House to approve benefits to DOE and contract workers exposed to radioactive materials, Michaels said.

Richardson will start a medical surveillance program for current Paducah plant workers to supplement an ongoing health study of past workers. He will involve workers in continued talks as plutonium information unfolds and require past contractors to provide health and environmental records, Michaels said.

Former contractor Lockheed Martin, which ran the plant from the early 1980s until this spring, has been sued by two current health physicists and a past worker at the Paducah plant regarding the plutonium issue. The suit, filed with the Department of Justice under the False Claims Act, is sealed until the department decides whether it wants to pursue allegations that Lockheed Martin defrauded the government by not being forthcoming about plutonium.

Jerry Langheim, a Lockheed Martin spokesman at the firm's Bethesda, Md., headquarters, said the company still has not been served with the lawsuit and cannot comment.

Union Carbide, which ran the plant for many years before Lockheed Martin, was not named as a defendant because a statute of limitations prevented it.

USEC ended its contract with Lockheed Martin earlier this year and is running the plant, owned by DOE. When it took over production oversight six years ago, USEC was aware of trace plutonium and expanded its program of monitoring workers and places for the material, said Elizabeth Stuckle, USEC communications director.

"We don't have, to our knowledge, plutonium in the space leased by USEC," Stuckle said.

Worker testing includes dosimeters worn by employees and urinalyses, she said, and technicians also check floors, equipment, tables, work surfaces, ground, tools and other places of potential contamination.

The leased space, including the plant's huge process buildings, is relatively small compared with the large DOE reservation covering land around the plant, she said.

Jimmie Hodges, Paducah DOE site manager, said that shortly after he came to plant in 1989, an extensive program was begun on "transuranic" materials — heavy, radioactive metals, including

BARKLEY THIELEMAN/The Sun

Addressing the media: Department of Energy site manager Jimmy Hodge (left) and Dr. David Michaels, DOE assistant secretary of environment, safety and health, field reporters' questions at a news conference Monday afternoon about a lawsuit alleging employee exposure to plutonium.

plutonium, that are nuclear reactor byproducts. In particular, employees in suspect areas were trained on transuranic procedures, he said.

Hodges said transuranic monitoring programs for employees were in place in 1989, and to his knowledge, no one showed exposure to the material until 1993 when USEC took over worker testing.

Hodges said there was no effort then to notify former employees, but he could not say why. Jim Chesnut, who started work at the plant when it opened in 1952, said he fed "rat tails" — slang for spent nuclear fuel rods — into the Paducah diffusion process for many years, yet didn't know they contained plutonium

"I knew what I did, but I didn't know what it was," Chesnut said, explaining that he did not hear the word "transuranics" until two years ago.

Chesnut, a former atomic workers' union local president, retired from the plant in 1993. He now is liaison for the DOE-sponsored health study of former workers that Richardson wants to expand to include plutonium exposure.

David Fuller, current president of the atomic workers' union, said that before the Post story he had "no inkling" that plutonium was in the plant. John Driskill, president of the plant guard workers' union, said he also had been in the dark about plutonium but felt encouraged after talking to Michaels.

"It sounds like the secretary of energy wants to do the right thing," Driskill said. "Most of the bureaucracy in a case like this, it seems, is going to be bypassed."

Traces of plutonium reportedly were found in a residential well near the plant in 1990 and later in deer shot in the nearby wildlife management area. As part of its extensive cleanup efforts and providing city water to dozens of residents, DOE continues to look at whether those and other findings suggest an undue health risk, Hodges said.

Although DOE periodically found flaws in Lockheed Martin's environmental and work health programs, Hodges said he "by and large" has confidence in them.

Quoting documents from government sources, the Post's story said a DOE-sanctioned study in 1988 found that "low mass concentrations" of plutonium could be a threat to workers if ingested. Soon afterward, plant contractors found plutonium in soil in ditches outside the plant and reported amounts many times higher than cleanup levels DOE has set for nuclear test sites, the story said.

Lockheed Martin's predecessor, Martin Marietta, issued a 1992 report that plutonium-related contamination posed "significant" environmental problems and worker health hazards, the Post reported.

The story said contractors estimate 12 ounces of plutonium entered the plant during the 23 years. It is uncertain whether plutonium came into the plant continuously during that time, Hodges said, and the investigation will try to ascertain the exact amount.

Political voices press for hearings, answers

■ **Energy Secretary** *Bill Richardson has promised an investigation of the allegations and a full report on its findings will be made available.*

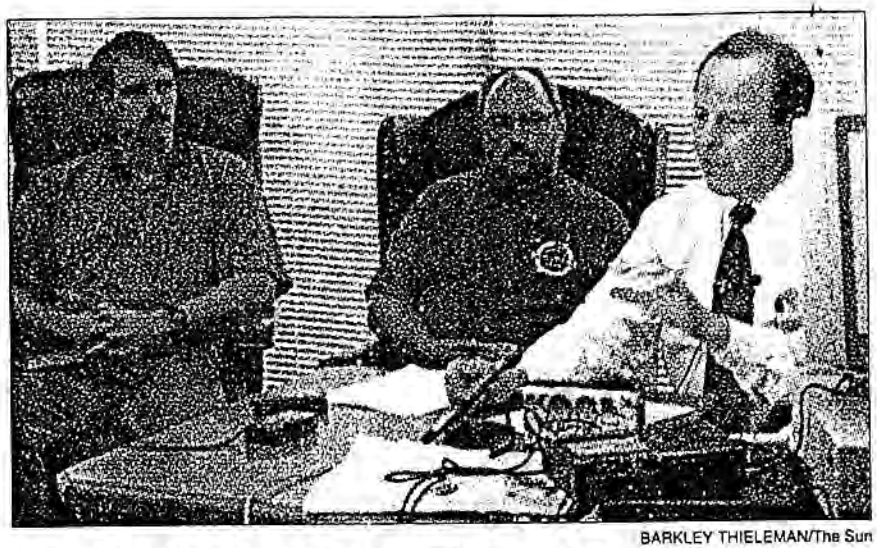
By Bill Bartleman
The Paducah Sun

U.S. Sen. Mitch McConnell, U.S. Rep. Ed Whitfield and former U.S. Sen. Wendell Ford of Kentucky expressed shock and concern over reports, confirmed later Monday by the Department of Energy, that thousands of workers at the Paducah Gaseous Diffusion Plant were exposed to plutonium.

McConnell called for Senate Energy Committee hearings as early as September to get to the bottom of the facts related to a weekend Washington Post news story.

It was the first allegation of plutonium use at the plant. Employees, the public and members of Congress had been told in the past that only low-level uranium was used in the production of nuclear fuel, and Monday's news conference by DOE restated that contention.

"It is disturbing to me that the public has been made aware of this activity in press reports," McConnell said. "If they did use plutonium without telling the employees and without taking the proper precautions, it is unacceptable, and someone must be held accountable."



BARKLEY THIELEMAN/The Sun

Reaction time: U.S. Rep. Ed Whitfield (right) was joined Monday by John Driskill (left), president of the plant guard workers' union, and David Fuller, president of the atomic workers' union.

The Post's article said that from about 1953 until about 1976, the U.S. Department of Energy ran experiments in which it attempted to recycle used nuclear fuel that contained high concentrations of plutonium. The article said that no special safety precautions were used, that workers were exposed to plutonium dust and that workers were never told about the plutonium.

Whitfield said he was assured by Energy Secretary Bill Richardson on Monday that the department will investigate the allegations and give a full report on its findings.

Whitfield said that, based on the news story, he believes some plutonium was used at the plant without the knowledge of the work force. He said it is important to determine how much was used, whether workers were contaminated and whether it affected the health of workers.

McConnell wouldn't speculate on the extent to which the Post's report

What is a false claims suit?

Allegations that plutonium was used in processing nuclear fuel at the Paducah Gaseous Diffusion Plant apparently came from documents compiled as part of a suit filed in federal court under the False Claims Act.

Suits filed under the False Claims Act are sealed, or kept confidential, for up to one year to help protect those who filed the suit from possible retaliation from their employers. The Washington Post apparently obtained copies of some of the documents. The suit was filed June 1 by three current and former employees.

The U.S. Justice Department is reviewing the merits of the suit and determining whether it should get involved in efforts to recover money paid by the U.S. Department of Energy to Lockheed Martin and Martin Marietta, two former operators of the plant.

A source close to the suit said it claims that the former operators defrauded the federal government by making false claims regarding environmental safety concerns at the plant. The alleged false claims are that they failed to notify DOE of possible contamination from plutonium.

If the claims prove true, the former contractors could be ordered to repay the millions of dollars in fees and fines. If that happens, the three who filed the suit would be entitled to 25 percent of the amount recovered.

The suit may be sealed for up to one year while the Justice Department investigates. It would become a public document if Justice officials decide to pursue the allegations.

alleging high levels of plutonium exposure is accurate. "That is why we want to hold the hearings, and that is what we want to find out," he said.

He wants the hearings to extend beyond the plutonium controversy and cover the entire issue of contamination from other chemicals and cleanup efforts that are under way

Please see **POLITICAL** / 11A

Political forces push for hearings, probe

Continued from 1A

in Paducah.

Ford, who retired last December, said he spent considerable time during his 24-year Senate career dealing with DOE officials and working on issues related to the Paducah plant. He said he served on the Senate Energy Committee for 18 years and was never told of any plutonium.

"If they had ever mentioned plutonium and Paducah in the same breath, my antenna would have gone straight up," Ford said. "If plutonium was used at the plant, I should have known about it, and if I had known about it, I would have attempted to correct it and let the employees know."

He said he was deeply concerned if DOE officials withheld information from Congress and the plant employees.

Ford said his only knowledge about plutonium contamination is what he read in the Washington Post article. The Post indicated that either the Department of Energy or private contractors who ran the plant tried to conceal facts about the plutonium.

"If they did try to hide it, that was wrong," Ford said. "Whenever you try to hide something, eventually it comes out. The only thing that occurs when you hide something is that people get hurt. In this case, the workers may have been hurt."

Ford said he is confident that Richardson will conduct a thorough investigation. "Knowing the secretary the way I do, I know he'll make every effort to correct what has occurred in the past and fix it for the future."

Whitfield said Richardson did not deny the allegations about plutonium or say there were doubts that the allegations were true.

"The secretary already indicated he is going to send a group back to Paducah to do an analysis at the plant," Whitfield said. "I urged him to take the time he needs and do it in a deliberate fashion so that we have the facts in this case."

After facts are gathered and analyzed, Whitfield said he wants Richardson to come to Paducah and meet with employees and community groups. "He needs to lay the facts on the table and explain exactly what the situation is and what steps we can take to deal with the issue," Whitfield said.

Whitfield may ask the House Energy Committee to conduct a hearing similar to the one already requested by McConnell in a letter to Sen. Frank Murkowski, chairman of the Senate Energy Committee.

Whitfield cautioned that the allegations about plutonium were originally made in a federal lawsuit, filed by three current and former employees, which could earn them millions of dollars. The suit was filed against Lockheed Martin and Martin Marietta, two former operators of the plant.

The suit was filed June 1 under the False Claims Act, which requires the Justice Department to investigate to determine if a private contractor defrauded the government by making false claims.

In this case, the contractors that operated the plant were paid based on meeting certain criteria, including meeting environmental safety concerns. *(See related box, 1A.)*

Whitfield said that even though the issue is in litigation, it should still be investigated and results made public.

In Frankfort, Gov. Paul Patton said a fact-finding team of experts from the state Natural Resources and Environmental Protection Cabinet and the Cabinet for Health Services would be formed.

Although Patton acknowledged the main responsibility regarding exposures lies with the federal government, "I want as many facts as possible at our disposal to ascertain how ... state government can most quickly help those who have been affected," he said.

Public fires first round of questions at officials

By Bill Bartleman
The Paducah Sun

There were plenty of questions and few answers for the 110 people who attended a meeting Monday night to discuss radiation contamination at the Paducah Gaseous Diffusion Plant.

About a dozen people spoke and most asked questions that were specific to their individual health concerns or health problems with family members.

Dr. David Michaels, the U.S. Department of Energy's assistant secretary of environment, safety and health, said he could not answer specific questions but promised that an extensive investigation will be conducted to determine how contamination from the plant has affected the

Please see **PUBLIC** / 12A

Public fires first round of questions

Continued from 1A

health of workers, their families and nearby residents.

"We believe that if DOE bears the responsibility, then DOE should step up to the plate and take that responsibility on," Michaels said near the end of the two-hour meeting at Heath High School.

Michaels said the investigation will be a two-step process. "First, we will look at whether there are diseases that would not have occurred if the DOE plant had not been here. Then if we do find such cases, we will determine what the compensation should be."

Michaels said the meeting was called to solicit community comments and concerns about recent news stories that indicated that plutonium was processed at the plant without workers' knowledge and without taking proper safety precautions.

Michaels said he would report concerns directly to U.S. Energy Secretary Bill Richardson, who plans to visit Paducah soon.

Chester Hall worked at the plant as an electrician and wanted to know if contamination on his body and clothing could have affected members of his family.

"I was exposed to everything out there because I worked in every building but didn't have protective clothing," Hall said. "I wore my own clothes. My wife died of cancer, and I want to know if I could have taken contamination home that caused her to be ill."

He was told that determining the cause of cancer is difficult but that efforts will be made to address that in the investigation that could begin as early as next week.

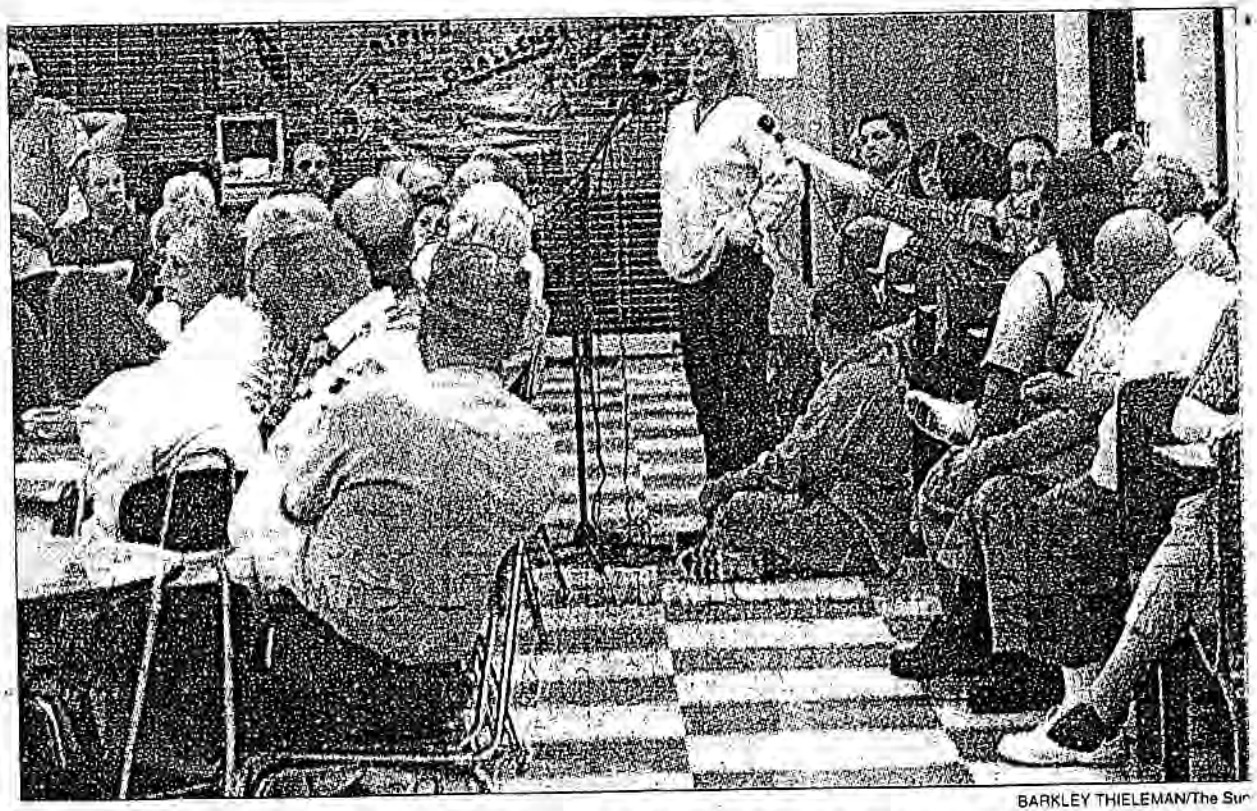
John Tillson wanted to know whether employees and former employees could voice their concerns about conditions at the plant without fear of retribution from DOE or the United States Enrichment Corp., which currently operates the plant.

Tillson claimed he was fired because he was a "whistle-blower" who complained about conditions when he worked there in 1994 and '95. He said his complaints were ignored.

Michaels said that one of his jobs as assistant energy secretary is to establish a procedure for protecting whistle-blowers. He said that procedure should be in place in two or three months.

Two nearby residents reported illnesses in their families and wanted to know if the illnesses could have been been caused by wells that were contaminated from runoff from the plant. The wells were closed in 1988, and DOE paid to have public water supplied to their homes.

They were told that studying the health effects of nearby residents will be part of the investigation.



BARKLEY THIELEMAN/The Sun

Time for questions: Nita Bean Rose tells her story during a public meeting Monday night at Heath High School about problems her father had at the Paducah Gaseous Diffusion Plant.

▼ Prior DOE Environmental Efforts

Here is how operators of the Paducah Gaseous Diffusion Plant have dealt with prior claims of contamination, before Monday's acknowledgement that workers were exposed to "trace amounts" of plutonium:

■ The Department of Energy extended city water service to several area residents living west, north and east of the plant, after their wells were discovered to be contaminated.

A program of pumping and treating a contaminated plume of groundwater was started, and warning signs were placed at nearby creeks that are contaminated. In May 1998, DOE was still investigating sources of groundwater contamination.

Three weeks ago, U.S. Energy Secretary Bill Richardson said the Clinton administration would support legislation that could make current and former plant employees eligible for work-related benefits. Under the legislation, workers who suffer from chronic beryllium disease would be eligible for federal workers' compensation benefits. Beryllium is a rare chemical associated with several metallic alloys used in atomic weapons; it causes lung-related illnesses.

A federal task force also was expected to look into adding other illnesses such as radiation-induced cancers and asbestosis to the eligibility list.

Other actions:

■ A plan that would continue to store 28,351 metal cylinders of depleted uranium hexafluoride stacked at 13 locations around the plant and convert them into oxide, metal and fluorine products.

■ Trying to stop seepage of the cleaning solvent trichloroethylene from the plant into groundwater.

■ Using a system of filters known as "lasagna" to remove trichloroethylene from a plot of ground.

■ Treating, storing and disposing of 360,000 cubic feet of waste. The plan involves "Vortec" soil vitrification — using very high heat to convert contaminated dirt into glass.

The Courier-Journal

LOUISVILLE, KENTUCKY

TUESDAY, AUGUST 10, 1999

Workers not told of peril, U.S. says

Reactor fuel at Paducah plant had plutonium

By JAMES MALONE
The Courier-Journal

PADUCAH, Ky. — Workers at the uranium-enrichment plant near Paducah were not properly informed that the spent nuclear reactor fuel they handled was tainted with plutonium, a federal Department of Energy official acknowledged yesterday.

David Michaels, a DOE troubleshooter dispatched to Paducah to prepare a report for Energy Secretary Bill Richardson, said about the plutonium contamination, "The Department of Energy did not do a good job of communicating that to workers."

Also yesterday, U.S. Sen. Mitch McConnell and Rep. Ed Whitfield of Western Kentucky's 1st District asked for congressional investigations of allegations made in a lawsuit filed in June by three management workers at the Paducah Gaseous Diffusion Plant and by the Natural Resources Defense Council. Gov. Paul Patton announced the formation of a task force of state officials to examine the suit's claims.

The suit, against two government contractors who operated the plant in the 1980s and 1990s, alleges that thousands of unsuspecting workers inhaled dust containing cancer-causing plutonium and other radioactive metals from the mid-1950s to the mid-1970s. The existence of the whistle-blower suit, filed under seal in U.S. District Court in Paducah, was reported by The Washington Post on Sunday in a story also published by The Courier-Journal.

"It's pretty bad when the government and your employer lets you read about something like this in the morning paper," John Driscoll, a guard at the plant, said yesterday.

Last night, about 125 to 150 people, many of them former or current plant workers, attended a public meeting organized by the Energy Department at Heath High School. Workers, some of them very emotional, took turns talking about problems they had seen at the plant, including exposure to radioactive dust.

George Bourgois, who worked at the plant from the 1950s into the mid-1980s, said dust was everywhere. "We wallowed in that stuff. It was in our shoes. It was in our hair. It was in our face, and everywhere."

Jim Chesnut, 70, who retired in 1993 after 41 years at the plant, said he never heard about plutonium in all his years there. He said he first heard of it three weeks ago from a doctor who is surveying former and current workers. He said the screening found him healthy.

He said the DOE may be responsible for not properly overseeing the contractors, but "I feel the contractors were the guilty ones. They were paid huge bonuses for production."

THE LAWSUIT named Lockheed Martin Corp. and Martin Marietta Corp., which managed the plant in the 1980s and 1990s, before it was taken over by the U.S. Enrichment Corp., a government-chartered private company. The suit does not name the original contractor, Union Carbide, which ran the plant for 32 years during which most of the contamination occurred, the Post reported.

At a press briefing yesterday, Energy Department site manager Jimmie Hodges said he and other administrators knew that small amounts of plutonium were in the reactor materials sent to the Paducah plant from the Hanford Nuclear Reservation in Washington state. Hodges insisted that "public records" have disclosed that information and that the government contractors had submitted accurate reports to DOE. But he didn't specify when or in what documents the information was reported.

Michaels, the Energy Department troubleshooter, said DOE investigations undertaken in June found no imminent danger to public health. But he said the DOE was assembling a "pretty high-level team" to do a more comprehensive evaluation of past and present conditions and workers' medical histories.

"Any exposure to plutonium is too much exposure," Michaels said.

And Hodges said of the government's expanded investigation of environmental discharges from the plant, "I'm sure we're going to find a lot of things out there that's going to surprise us."

The lawsuit, of which The Courier-Journal obtained a copy yesterday, alleges that environmental monitoring records that would have disclosed off-site plutonium contamination were "missing" from a public reading room in Kevil, which serves as a repository for records about the plant's environmental compliance.

THAT ALLEGATION came from an affidavit filed with the suit by Thomas B. Cochran of the Natural Resources Defense Council.

Hodges insisted yesterday that the records and reports were not missing.

The plaintiffs also alleged that Lockheed Martin asserted to the government that it had properly disposed of hazardous and radioactive wastes when in fact it had deposited these wastes in on-site landfills that were not permitted to accept them. Those false assertions also were contained in an annual environmental report that was distributed to the public every year since 1989, the suit alleged.

Moreover, the suit said that "substantial quantities of radioactive and/or hazardous wastes" were disposed of off site and such locations were "unmarked and generally unsecured."

The suit alleges that Lockheed Martin did not accurately report problems and that by not doing so, the company reaped additional financial incentives from the government. The suit alleged that Martin Marietta and Lockheed Martin, the company's current name, collectively earned "substantially more" than $328 million in fees, awards and incentives under their contracts with DOE.

Whitfield said at a press conference that he was "disturbed" by the reports and said he has urged Richardson, the energy secretary, to conduct a thorough investigation and then return to Kentucky and "lay the facts out on the table."

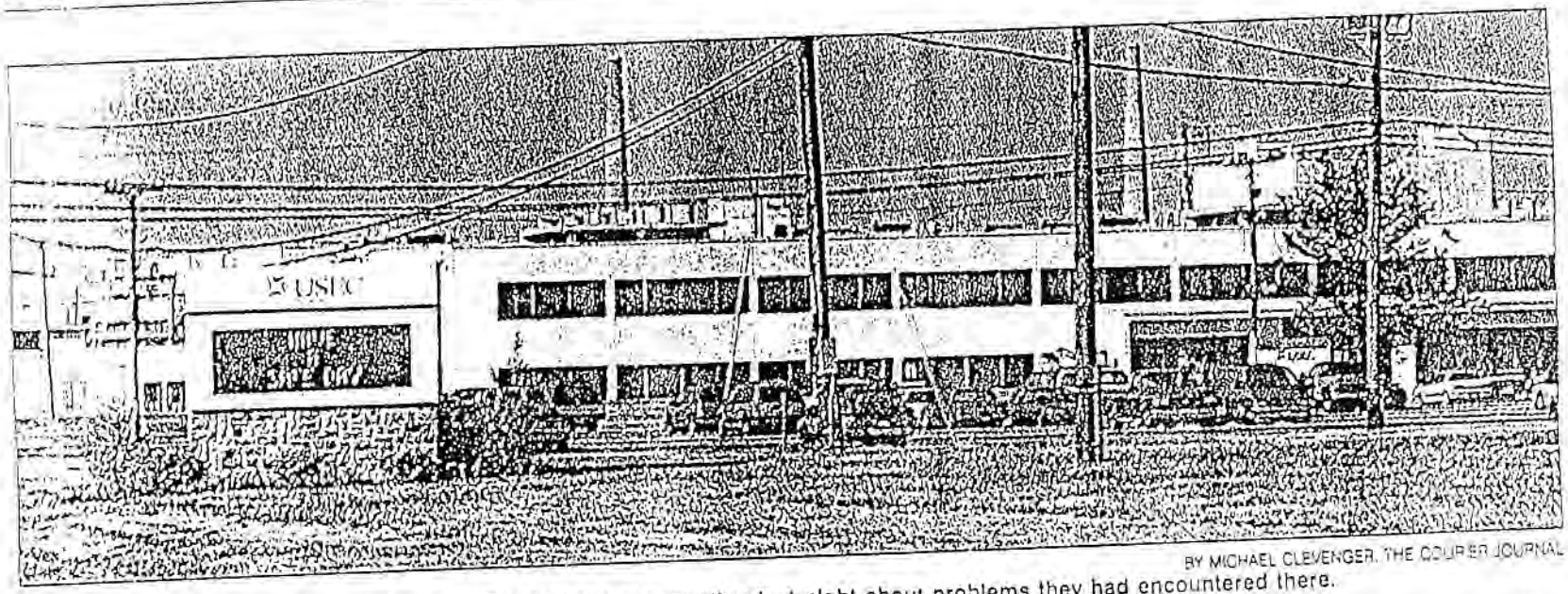
Whitfield also asked for federal money to be provided for medical screening and added that he wants to hold congressional hearings on the issue.

McConnell called for Senate hearings on harm the Paducah plant may have caused to the health of workers and residents.

Also, McConnell said in an interview that the federal government — not the private contractors that ran the plant or the government-chartered private company that now owns it — will "have to step up to the plate" to pay for cleanup of the area and any liability arising from irresponsible handling and disposal of radioactive material at the plant.

"It is disturbing to me that the public has been made aware of this activity in press reports," McConnell wrote to Alaska Republican Sen. Frank Murkowski, chairman of the Senate Energy and Natural Resources Committee.

McConnell asked Murkowski to hold hearings on possible exposure of workers and residents to plutonium and other nuclear materials; damage to the environment near the plant, especially possible contamination of ground water and creeks; and the Energy Department's plans for "cleanup of the entire site."



BY MICHAEL CLEVENGER, THE COURIER-JOURNAL

Workers at the Paducah Gaseous Diffusion Plant spoke at a meeting last night about problems they had encountered there.

U.S. admits workers uninformed

"We wallowed in that stuff. It was in our shoes. It was in our hair. It was in our face, and everywhere."

George Bourgois, who worked at the plant from the 1950s into the mid-1980s, speaking of the contaminated dust

MURKOWSKI'S spokeswoman at the committee could not be reached.

But McConnell said he hopes hearings can be held in early September. "This is obviously serious enough to warrant a congressional oversight hearing," he said. He noted that Kentucky Republican Sen. Jim Bunning, who is out of the country, is a member of the committee.

If the Energy Department requests more money to study and correct problems at the Paducah plant, McConnell said he thinks Congress will provide it.

"It might not be too late to get something even in this year's appropriations bill" on energy and water, McConnell said in Radcliff after attending a luncheon for the new commander of Fort Knox. House and Senate negotiators will take up the spending bill next month.

Asked if he had known dangerous materials such as plutonium had been handled at the plant, McConnell said he had only known of low-level contamination.

"We knew there were some environmental damage. What is a revelation is the suggestion that there are a lot of health problems related to that. And it seems to me that's the aspect of it that we need to learn more about, quickly, in the hopes of helping people who may be, you know, experiencing illnesses as a result of it."

McConnell, who said he will proceed with a planned "driving tour" of the plant Thursday, said he expects "widespread alarm down there" as a result of the press revelations.

"We need to find out whether that's warranted or whether it isn't — and do that pretty soon," he said.

Yesterday Gov. Paul Patton organized a team of top state officials to investigate the suit's allegations.

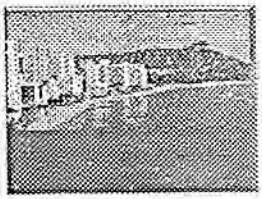
He assigned Jack Conway, deputy secretary of his executive Cabinet, to head the team, which will also include Natural Resources Secretary James Bickford and the state health commissioner, Dr. Rice Leach.

IN A NEWS release, Patton said the team would "gather all pertinent facts to ensure that the commonwealth has all the available information to act quickly and appropriately."

The news release noted that radiation exposure that took place at the plant would be the responsibility of the federal government. But Patton added, "I want as many facts as possible at our disposal to ascertain how Kentucky state government can most quickly help those that have been affected."

The governor said in a brief telephone interview from St. Louis, where he is attending the National Governors' Association convention, "We are certainly concerned about this, and it will receive attention at the highest levels of state government."

Staff writers Tom Loftus and Robert T. Garrett contributed to this story.



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Paducah -- Never Again

By Arjun Makhijani

Tuesday, August 17, 1999; Page A15

Joe Harding worked at the Department of Energy's Paducah, Ky., uranium enrichment plant and died in 1980 of cancer at age 58. He was one of a half-million people who processed nuclear and other materials and turned them into the 70,000 nuclear warheads that the United States produced during the Cold War. He worked in a highly polluted environment and died with uranium in his bones. Yet, the DOE and its contractor Union Carbide denied that radiation might have caused his illness. His case is unusual only in that he wrote a diary and spoke out freely before he died, so that his plight is now well known, thanks to a recent Washington Post story [front page, Aug. 8].

The U.S. government practice of denying overexposure to radiation to workers without proper scientific analysis of available data has resulted in gross injustices for large numbers of people. For instance, workers at DOE's Fernald, Ohio, plant, where uranium was fashioned into metal targets and fuel elements for reactors, were told for years that they were not overexposed and that the plant was safe.

But a 1994 study done by my colleagues who analyzed the raw data files in the context of a class-action lawsuit filed by plant workers showed that during the 1950s and early '60s, more than half the workers were overexposed in every year but one. In 1955, 90 percent of the workers were overexposed by then-prevailing standards. The research also showed that the data were so sparse that it was impossible to reliably calculate individual exposures -- only group radiation doses could be estimated with confidence.

The DOE settled the lawsuit on behalf of the contractor for $15 million and medical monitoring, but admitted no wrongdoing. The government had previously settled a similar suit by the plant's neighbors about off-site contamination for $78 million.

In 1997 the DOE admitted that, until 1989, it had never calculated the radiation doses to workers resulting from inhalation or ingestion of uranium, plutonium and other radioactive materials present at any of its nuclear weapons plants, even though the raw data to do so were often available. These data sat un-analyzed in internal files. Moreover, the allegations of the Paducah health physicists reported by The Washington Post indicate that, despite DOE claims to the contrary, the problems leading to flawed dose records may have continued past 1989.

The poor and incomplete state of the dose records, frequently terrible working conditions (uranium air contamination at Fernald, for instance, was often tens or hundreds of times above maximum allowable limits) and the lack of any records for exposures to many toxic non-radioactive materials, point to one stark conclusion. The DOE and its contractors have often made scientifically incorrect and baseless denials of harm.

Given that reality, Energy Secretary Bill Richardson's statement that the DOE will not be a "Department of Excuses" and will actually help workers who have been harmed is laudable but highly inadequate. Many nuclear weapons workers are sick from causes that are not readily identifiable partly because poor and grossly incomplete records mean that it is often impossible for them to prove causation.

All surviving nuclear weapons complex workers should be provided with medical monitoring. In cases where medical benefits are needed, there should be a presumption of causation for a variety of ailments. Where regulations were egregiously violated, contractors should be made to pay. And there should be generous compensation for surviving family members in cases such as Joe Harding's.

Department-wide investigations in the wake of the Paducah scandal should attempt to determine whether there has been fraud in maintenance of data records -- for instance, were any of the dose data fabricated? Such inquiries should also be directed toward the reforms that will prevent a recurrence of the lamentable conditions that workers and their families have suffered for decades.

The signs are not reassuring. Current proposals for DOE reorganization are headed in the wrong direction. Past failures arose not from a lack of legal mandate -- the DOE and its contractors were and are required to protect health and the environment. The central problem has been DOE self-regulation and secrecy in health and environmental matters.

Despite this record, the Los Alamos National Laboratory spy scandal has led to reorganization proposals that would entrench self-regulation and downgrade the already weak position of DOE's internal environment, safety and health division. This is a prescription for a tragic repetition of past abuses. Whatever security reorganization results from the spy scandal, it is imperative that the worker health, safety and environmental protection aspects of DOE's nuclear weapons work be externally regulated. Three agencies would be involved: the Nuclear Regulatory Commission, the Occupational Health and Safety Administration and the Environmental Protection Agency. Such regulation has been much studied and debated; it is time to put it firmly into place.

time to put it firmly into place.

The writer is president of the Institute for Energy and Environmental Research in Takoma Park.

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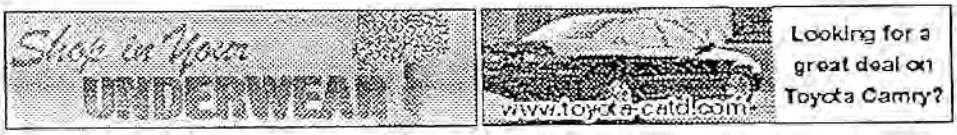

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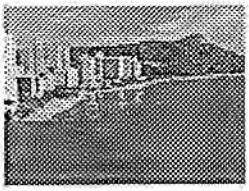
In Harm's Way, But in the Dark

By Joby Warrick
Washington Post Staff Writer
Sunday, August 8, 1999; Page A1

Sign posted at the Paducah Gaseous Diffusion Plant, which is suspected of being the cause of higher than normal radioactive contamination in the area. (Michael Williamson — The Washington Post)

PADUCAH, Ky. – Thousands of uranium workers were unwittingly exposed to plutonium and other highly radioactive metals here at a federally owned plant where contamination spread through work areas, locker rooms and even cafeterias, a Washington Post investigation has found.

Unsuspecting workers inhaled plutonium-laced dust brought into the plant for 23 years as part of a flawed government experiment to recycle used nuclear reactor fuel at the Paducah Gaseous Diffusion Plant, according to a review of court documents, plant records, and interviews with current and former workers. The government and its contractors did not inform workers about the hazards for decades, even as employees in the 1980s began to notice a string of cancers.



Radioactive contaminants from the plant spilled into ditches and eventually seeped into creeks, a state-owned wildlife area and private wells, documents show. Plant workers contend in sealed court documents that radioactive waste also was deliberately dumped into nearby fields, abandoned buildings and a landfill not licensed for hazardous waste.

The sprawling Kentucky plant on the Ohio River represents an unpublished chapter in the still-unfolding story of radioactive contamination and concealment in the chain of factories across the country that produced America's Cold War nuclear arsenal. Opened in 1952 in an impoverished region, the 750-acre plant built a fiercely loyal work force of more than 1,800 men and women who labored in hot, stadium-sized buildings turning trainloads of dusty uranium powder into material for bombs.

Today, the Department of Energy contends that worker exposure was minimal and that contamination is being cleaned up. A lawsuit filed under seal in June by three current plant employees alleges that

radiation exposure was a problem at Paducah well into the 1990s.

The Post's investigation shows that contractors buried the facts about the plutonium contamination, which occurred from the mid-1950s to the mid-1970s, in reports filed in archives. Plutonium, a core ingredient in nuclear bombs, is a highly radioactive metal that can cause cancer if ingested in quantities as small as a millionth of an ounce. The Paducah plant was designed to handle only uranium, a mildly radioactive metal.

"The community to this day has no idea of the kinds of contaminants they were exposed to," said James W. Owens, a Paducah lawyer representing residents whose water has been polluted by the plant.

Health consequences remain unclear. No comprehensive study of worker medical histories has been attempted at Paducah. In neighborhoods where older workers live, stories abound of cancer clusters and unusual illnesses. One 20-year veteran worker who died in 1980 compiled a list of 50 employees he worked with who had died of cancer.

"Everything was so safe, so riskless," the worker, Joe Harding, said in an interview just before his death. "Today we know the truth about those promises. I can feel it in my body."

Even though the plant's procedures and purpose have changed – Paducah's enriched uranium is now used in commercial nuclear power plants – problems have continued. Workers weave between makeshift fences that cordon off hundreds of radioactive "hot spots" scattered across the complex. In one corner of the plant, mildly radioactive runoff trickles from a nearly half-mile-long mound of rusting barrels that still contain traces of uranium.

"The situation is as close to a complete lack of health physics as I have observed outside of the former Soviet Union," Thomas Cochran, nuclear program director for the Natural Resources Defense Council, said in documents filed in the lawsuit.

The Department of Energy, which owns the plant, said it could not comment on allegations made in the suit because of the court-ordered seal. The agency is investigating the charges and dispatched a team to Paducah to determine if conditions posed an immediate threat to workers or the public.

Energy Secretary Bill Richardson said the agency's national security goals had "sent many of our workers into harm's way," but he said the agency must now live up to its responsibility to "right the wrongs of the past." Two weeks ago, Richardson pledged millions of dollars for medical monitoring of nuclear workers who were exposed to

beryllium, a highly toxic metal.

"The Department of Energy will continue to take any actions that are necessary to ensure the protection of public health, the workers and the environment," he said.

Still, agency officials, in a written response to questions from The Post, strongly defended past safety practices at Paducah and said no workers are at risk today.

"The plant's monitoring data did not indicate an accumulation of [plutonium and other highly radioactive wastes] in the workplace or the environment that would be a health concern to workers or to the public," the DOE said.

That position is vigorously contested in more than 2,000 pages of documents filed in the lawsuit by two of the plant's health physicists, or radiation safety experts, and a veteran worker who had his esophagus removed after three decades of work inside contaminated buildings. Copies of the documents were obtained by The Post from government sources.

"The management line for years has been there was an insignificant amount" of plutonium at Paducah, said Mark Griffon, a health physicist at the University of Massachusetts at Lowell who is participating in a federal study of radiation conditions at nuclear weapons plants, including Paducah. Griffon reviewed plant documents provided by The Post.

"If the levels were this significant," he said, "it raises an important question: Why weren't workers ever monitored?"

The two health physicists suing the plant say in court documents they tried to call attention to the radiation problems but were confronted by a culture of unconcern.

"I was told by my superior . . . in so many words that 'this is Paducah – it doesn't matter here,' " said one of the physicists, Ronald Fowler, 50, who came to the plant in 1991.

The suit was brought under a law that allows employees to collect payment for exposing fraud against the government. It was filed under seal to give Justice Department officials an opportunity to decide whether to join the suit or begin a criminal investigation.

The suit names Lockheed Martin and Martin Marietta, which managed the uranium enrichment plant during the 1980s and 1990s. It does not name the original manager, Union Carbide, which ran the facility for a 32-year period during which the bulk of the

contamination occurred. None of the companies had been served with the suit and none would comment on the allegations.

The current plant operator, U.S. Enrichment Corp., a government-chartered private company that assumed management this year, concedes past problems but says safeguards are now in place. USEC, which sold shares to the public last year, says it has fully disclosed the plant's environmental problems to regulators, workers and stockholders.

"It was acknowledged by all sides that contaminated conditions existed, . . . but USEC wasn't responsible for them," said Jim Miller, USEC executive vice president.

Paducah is the latest DOE facility to be rocked by lawsuits and revelations of contamination. Cleaning up the complex is expected to cost $240 billion and take at least 75 years.

Measured by the gram, the contamination at Paducah isn't nearly as extreme as that in plutonium production plants such as Washington state's Hanford Nuclear Reservation, where vast swaths of land have been sealed off from humans. But unlike the workers at those plants, employees at Paducah did not know of the risks in the uranium dust they breathed every day.

Worker exposure to such dust has cost the government in the past. The Energy Department paid a $15 million settlement five years ago to former workers who had breathed uranium dust at the Fernald Feed Materials Production Center near Cincinnati.

The difference between the dust at Fernald and that at Paducah comes down to one word: plutonium.

For 2 Decades, Trains Brought Unknown Danger

The Paducah complex was the second of three U.S. government plants designed after World War II to create enriched uranium. The plants were operated for the government by private contractors who over time were paid bonuses for running safe, efficient facilities.

In the beginning, uranium ore was scarce. The Atomic Energy Commission, forerunner of today's Energy Department, tried to fill the gap by "recycling" leftover uranium – from nuclear reactors that made plutonium for bombs – through the enrichment process at Paducah.

From 1953 to 1976, more than 103,000 metric tons of used uranium was shipped to Paducah, records show. It arrived in freight cars as a fine black powder. Unknown to workers, the powder contained

dangerous substances left over from the plutonium-making process – fission byproducts such as technetium-99 and heavy metals known as "transuranics": neptunium and plutonium.

"Plutonium is roughly 100,000 times more radioactive per gram than uranium," said Arjun Makhijani, president of the Institute for Energy and Environmental Research.

Over time, through spills and waste discharges, the contaminants accumulated in the miles of pipes used to gasify and enrich uranium, around loading docks and in ditches, documents show.

Plant officials were aware of the plutonium and other contaminants as early as the mid-1950s – it made their recycled uranium less efficient. But they believed the amounts were too small to pose a health threat.

Today, the DOE is able to rely only on a contractor's estimate of the total amount of contaminants introduced in that period: 12 ounces of plutonium, 40 pounds of neptunium and 1,320 pounds of technetium-99.

The government today takes the same position as it did in the 1950s: The amounts were most likely not enough to harm workers. "The general protection provided to workers from the hazardous effects of uranium would have provided adequate protection" from the contaminants, the DOE statement said.

But documents obtained by The Post show that plant officials became increasingly concerned about the contaminants. A 1992 report by Martin Marietta concluded that they caused "significant" environmental problems and "also pose a radiation hazard to the workforce." A 1988 study done for the DOE by a private contractor said the plutonium could "represent a significant internal dose concern even at very low mass concentrations."

Plant records draw an instructive comparison that underlines the hazards posed by plutonium: The 12 ounces of plutonium in the black powder delivered more than twice as much radiation into the environment as the 61,000 pounds of uranium that flowed out of the plant in waste water into the Ohio River between 1952 and 1987.

Bosses Took Threat With a Grain of Salt

In the noisy, cavernous buildings where uranium was processed, workers did not receive the warnings. The conditions there were "extremely dusty . . . sometimes to the point where it was very difficult to see or breathe," said Garland "Bud" Jenkins, 56, a 31-year-veteran uranium worker and one of the three employees involved in the lawsuit against Lockheed Martin.

To protect their skin from the uranium dust, workers wore cotton coveralls and gloves. But respiratory protection was optional – old Army gas masks, which fit poorly and were seldom used, former and current workers said.

At lunchtime, workers brushed black powder or green uranium dust off their food. "They told us you could eat this stuff and it wouldn't hurt you," said Al Puckett, a retired union shop steward. To dramatize the point, he said, some supervisors "salted" their bread with green uranium dust.

The workers took the dust home at shift's end.

"We frequently discovered that our bed linens would be green or black in the morning, from dust that apparently absorbed into our skin," Jenkins said.

Exposure to uranium dust decreased after the late 1970s, when the plant stopped receiving the black powder and began processing a more refined form of uranium. In 1989, the DOE adopted more stringent worker safety rules.

By then the plutonium had permeated the land around the plant. In the 1960s and 1970s, when the powder spilled, workers would sh[redacted] up and wash the remnants into the nearest ditch, Jenkins said. More than a dozen ditches flow directly from the plant onto state property and private lands.

There are no nationwide limits for plutonium in soil; cleanup standards depend on modeling the degree of public access to the contaminated spot. But the DOE has set cleanup limits at nuclear blast sites in the South Pacific of 15 picocuries of plutonium per gram of soil.

Contractors measured plutonium at levels up to 47 picocuries in ditches outside the plant and 500 picocuries on plant grounds.

Those measurements were made after the first evidence of environmental problems outside the plant surfaced in 1988, when a county health inspector found technetium and chemical carcinogens from the plant in a farmer's well. The discovery of the poisoned wells prompted a multimillion-dollar ground-water cleanup under the Environmental Protection Agency's oversight.

Although plant managers posted creeks and ditches with warning signs in the early 1990s, the signs do not refer to plutonium or any other radioactive contaminants. Some warn of possible contamination with cancer-causing chemicals; others merely caution against eating

local fish.

Lawsuit Alleges Deliberate Dumping

In addition to the substances that flowed or spilled out of the plant through the drainage ditches, the employees contend in their lawsuit that a wide variety of contaminated substances were deliberately dumped into the environment. Spilled black powder and empty radioactive waste containers allegedly were placed in dumpsters and trucked to a sanitary landfill on DOE property licensed only for trash and garbage. Rubble from demolished buildings and contaminated railroad ties allegedly were dumped in nearby woods and fields. Slag from uranium smelters was put in abandoned concrete bunkers in a state wildlife area outside the plant, according to the lawsuit.

"There was only one dumpster for all waste, whether radioactive, hazardous, toxic or ordinary," Jenkins said.

Plant records describe at least two dozen unlicensed radioactive debris piles on state lands outside the plant. Last year, ground-water tests turned up technetium directly beneath the sanitary landfill.

A 1990 DOE audit of Paducah found inadequate controls over waste disposal and a faulty system for tracking contamination that forced managers to rely on "word of mouth."

Charles Deuschle, 56, a health physics technician and the third employee in the lawsuit, said he was "shocked" when his surveys discovered radioactive contamination in such places as the plant's cafeteria.

"I saw conditions that would never have been tolerated in any other nuclear location where I have worked," Deuschle, who came to Paducah in 1992, said in court documents.

Internal plant surveys included in the suit found high levels of radiation on street surfaces, manhole covers and loading docks and in locker rooms as recently as 1996.

The plant's current managers maintain that all significantly contaminated areas have been addressed. "Hot" surfaces have been coated with absorbent paint, and warning signs have been posted, they said. Rope fences keep passersby away from radioactive equipment rusting in the open. Drain pipes and fire hydrants are coated with warning paint. Two dilapidated buildings where the black powder was once processed are padlocked. In 1997, regulatory oversight of the plant was transferred to the Nuclear Regulatory Commission, which declined to comment on allegations in the sealed lawsuit.

Even the employees involved in the suit concede that safeguards have improved recently. But they insist that problems remain. This spring, elevated radioactivity was found in a parking area near the administration building, plant documents show.

Soil collected from a ditch outside the plant's fence by The Post in June and analyzed at a commercial lab contained 2.6 picocuries of plutonium, slightly higher than the NRC's suggested guideline for cleaning up nuclear sites.

The Post, using two hand-held detectors, also found sharply elevated radiation levels in the debris piles on the state wildlife lands. One such area was an unmarked pile of rotting railroad timbers near fishing ponds and campgrounds.

Public Reports Tell Only Part of the Story

Environmentalists, plant workers and neighbors claim that plant officials play down the hazards.

"They cloak it in jargon," said Mark Donham, a member of a citizens advisory board that meets monthly with plant cleanup officials. "You have to order the documents and then spend hours and hours looking at them to learn anything."

DOE officials say the facts and figures about the plutonium contamination inside the plant have been duly recorded since 1991 in thick inspection reports. But these are kept in archives rarely visited by the public.

In the annual environmental reports that circulate to the public, the contamination is described as "trace" amounts of "radionuclides," a catchall term that can include mildly radioactive uranium as well as highly radioactive plutonium.

A 1991 "site investigation" report, done by the plant's contractor and stored in the archives, shows much higher levels of plutonium than the annual environmental reports. The DOE said the reports use different methods and measure different things.

The result has been that the DOE can claim full disclosure about the contamination while plant workers and neighbors remain in the dark, said Owens, the attorney for the plant's neighbors.

"The company has engaged in a cynical disinformation campaign that centered on downplaying risks and presenting confusing and misleading information," he said.

Inside the plant, the first disclosure of plutonium to workers came around 1990 after managers summoned top union leaders to discuss the results of tests ordered after the state found the poisoned wells.

"They took it seriously," a union official, speaking on the condition of anonymity, said of Martin Marietta's presentation. But "the health effects weren't viewed as serious. We just vehemently stressed that the contamination should be cleaned up."

Plant managers insist that workers today are fully aware of the potential hazards. USEC cites worker training programs that it says include a briefing on plutonium and other radioactive hazards at the plant.

But officials with the union's Washington office contend workers still don't know a fraction of what they were exposed to. "What we're seeing now," said Daniel Guttman, former staff director of the federal Advisory Committee on Human Radiation Experiments, "is the outcropping of the glacier."

Deficient Monitoring Compounded the Risk

The health effects for Paducah workers remain an open question.

The DOE said 442 Paducah workers were tested in 1997 and only 8 percent displayed measurable amounts of radiation. It said screening tests since 1992 have found no evidence of plutonium exposure in workers.

But the greatest exposure to workers would have occurred before the enhanced monitoring that began in the late 1980s.

In 1990, the DOE audited safety practices at Paducah and found scores of deficiencies in radiation monitoring and worker protection. The audit team said Paducah failed to properly monitor radiation to workers' internal organs – even though plant managers had been repeatedly warned to do so.

Radiation-measuring equipment was either missing or not properly calibrated, the report said, and workers weren't being tested for the kinds of radiation known to exist at Paducah. Whether the plant's equipment and personnel were even capable of detecting exposure to plutonium and other transuranics was "questionable," the audit said.

Bolstering claims by workers that they had been left in the dark about radioactive hazards, the report found no mention of transuranics in plant safety procedures.

"Onsite environmental radiological contamination conditions are largely unknown," the report said. "A formal program with well-defined monitoring, sampling and analysis requirements does not exist."

Independent experts are investigating Paducah as part of two national studies of environmental and safety issues in the U.S. nuclear weapons complex. Both studies are relying primarily on data supplied by the plant. Officials brought in two years ago to review past radiation hazards told The Post they were not informed that Paducah workers may have been exposed to significant amounts of plutonium.

Neither was Harold Hargan, a plant worker for 37 years. Hargan was one of about six workers who he says were told in 1990 that a test had found plutonium in their urine.

"It surprised me. Hell, it surprised the doctor," Hargan said. "Everybody knew there was no plutonium at Paducah."

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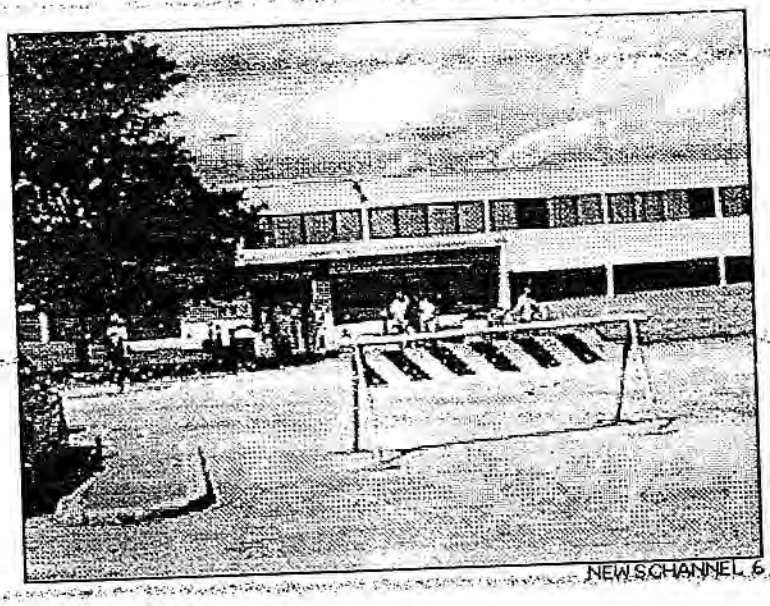

A view of the main building at the Paducah Gaseous Diffusion Plant.

Celina Kulp

Washing Post reports Paducah plant exposed workers to radiation

PADUCAH–According to the Washington Post, plant employees at the Paducah Gaseous Diffusion Plant inhaled dust laced with plutonium in work areas, locker rooms, and even the cafeteria.

COMPLETE STORY

Other reports claim that the plant contaminated ditches, creeks, and private wells. Three current plant employees filed a lawsuit that alleges workers were exposed in Paducah well into the 1990s. The suit names Lockheed Martin and Martin Marietta, both which managed the uranium enrichment plant during the 80s and 90s. The lawsuit has been sealed by a court order. Former employees of the plant now worry about their health and what the new information could mean to their

families. Al Puckett began working at the plant in 1952. He said in an interview with NewsChannel 6 reporter Heather Higdon that for 12-years, management reassured employees the work environment was safe.

"Part of us were really suspicious that it was really a lot worse than what they were telling us. They used to tell us, 'Oh, that stuff won't hurt you. You can eat it,'" said Puckett.

And according to 31-year plant veteran David Fuller, who is now the president of the union representing most workers, they did not know much about plutonium at the Paducah plant site. "We'd been advised our main concern was uranium and H-F. But never any mention to me of plutonium or any exposure to it, or any chance of exposure to it," stated Fuller.

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Workers reportedly exposed to plutonium

WASHINGTON (AP) - Thousands of uranium workers were unwittingly exposed to plutonium and other highly radioactive metals over a number of years at an Energy Department plant in Kentucky, *The Washington Post* reported Sunday.

Although similar nuclear contamination occurred at a number of other sites around the country in the years before worker safety was a top priority in U.S. industrial plants, the *Post* said one thing setting apart the case of the Paducah Gaseous Diffusion Plant was that workers did not know they were handling plutonium.

Instead, they thought they were dealing only with uranium, which is much less potent, the newspaper said.

Unsuspecting workers inhaled the more dangerous radiation in the form of plutonium-laced dust brought into the plant for 23 years, beginning in the mid-1950s, as part of a government experiment to recycle used nuclear reactor fuel.

The government and its contractors did not inform workers about the hazards for decades, even though employees in the 1980s began to notice a series of cancers, the *Post* said.

Citing its own investigation and sealed court documents, the *Post* said radioactive contaminants from the plant spilled into ditches and eventually seeped into creeks, a state-owned wildlife area and private wells.

Plant workers contended in court documents that radioactive waste also was deliberately dumped into nearby fields, abandoned buildings and a landfill not licensed for hazardous waste, according to the story.

Jimmie Hodges, the Energy Department's site manager at Paducah, said in a statement that an inspection of the site found that "there are no imminent threats to the public health, worker safety or the environment," but that the review is continuing.

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The *Post* said the Energy Department contends that worker exposure was minimal and that contamination is being cleaned up. But it notes that a lawsuit filed under seal in June by three current plant employees alleges that radiation exposure was a problem at the Paducah facility well into the 1990s.

The *Post* said its investigation found that contractors hid facts about plutonium contamination.

It said the June suit was filed under a law that allows employees to collect payment for exposing fraud against the government and has been kept under seal to give the Justice Department time to decide whether join the suit or to begin a criminal investigation.

The report said none of the private companies named in the suit has been served with it and would not comment.

The *Post* noted that Paducah is just the latest DOE facility to be hit by lawsuits and revelations of contamination. It said cleaning up the Kentucky plant is expected to cost $240 billion and take at least 75 years.

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Senator critical of plant cleanup

McConnell says Paducah effort must be priority

By JAMES MALONE
The Courier-Journal

KEVIL, Ky. — U.S. Sen. Mitch McConnell criticized the U.S. Department of Energy yesterday for its slow-paced cleanup of the Paducah Gaseous Diffusion Plant and called for it to become a national priority.

During a tour of the plant, the Kentucky Republican also said the agency must prove to him and the public that no harmful contamination was in and around the facility.

National attention focused on the plant Sunday when The Washington Post reported that small amounts of plutonium — a virulently radioactive component of nuclear weapons — were released into the plant without workers' knowledge when fuel from a weapons reactor was reprocessed over 23 years, ending in the mid-1970s.

The newspaper reported on claims made by three health physicists at the plant who filed a whistle-blower lawsuit against two companies the government had hired to run the plant.

"I've been out here before, and the subject of plutonium is new to me as well," McConnell said. "I gather there are some people out here who think that this is not a new suggestion, but it's clear from talking to the employees they hadn't heard the word before."

McConnell called on the Energy Department to supply answers to him and the public.

"We're all just going to need to be reassured," he said. "If the line the department is going to take is that whatever plutonium out here is an insignificant amount, they're going to have to prove that." Federal officials, seemed confident that the contamination was not a health threat, he said.

"We'll see. Put me down as skeptical," McConnell said.

He said the publicity may spur the Energy Department into expediting its long-running, but slow cleanup.

"I have a sneaking suspicion that it's not going to be as hard to establish cleanup, particularly at this plant, as a high priority," he said. "And that has been an ongoing struggle. . . . We won't have to fight as much as we've had to fight with DOE about a cleanup."

McConnell said the controversy has gone beyond questions about the environment, and must address such issues as medical monitoring of work-

See McCONNELL
Page 10, col. 1, this section

McConnell skeptical of DOE

The Paducah Sun
08/13/99 – P. A1

■ **The senator** *says the apparent secrecy over the traces of plutonium at the plant sparked his uncertainty.*

■ **Lawsuit unsealed:** *U.S. Justice officials considering role in suit.* **8A**

By Bill Bartleman
The Paducah Sun

U.S. Sen. Mitch McConnell said he is skeptical of reports by the U.S. Department of Energy that the Paducah Gaseous Diffusion Plant is safe for employees and nearby residents.

During a visit to the plant Thursday, McConnell said he will chair a congressional subcommittee hearing in Washington in mid-September to ask questions about the safety of the plant and recent reports that uranium containing plutonium was processed during a 23-year period without the knowledge of employees.

"We need to get to the bottom of all the facts related to the health of the people as soon as possible," McConnell said at a news conference at the end of his two-hour visit.

"If the line the department (takes) is that whatever plutonium is out here is an insignificant amount, it is going to have to prove that. We are all going to need to be reassured."

DOE officials have said that about 11½ ounces of plutonium was contained in 100 tons of recycled uranium fuel that was shipped to Paducah from nuclear plants in Washington state and South Carolina. While traces of plutonium contamination have been found at the plant, DOE officials said it is not creating a hazard for workers or the community.

McConnell toured the plant and met privately with DOE officials and officials of the United States Enrichment Corporation, which runs the plant and manages the uranium enrichment operation. He also met with leaders of two labor unions that represent employees.

DOE officials have said they investigated conditions at the plant two months ago and found it to be safe for employees and the community. A written report on those findings and findings from an expanded investigation that will begin next week is expected to be released in September.

"I sense a good deal of confidence on their (Department of Energy's) part that there aren't the kinds or levels of contamination that would endanger human health," McConnell said. "We will see; put me down as skeptical."

He said his skepticism stems from the apparent secrecy over plutonium that was in uranium processed at the plant.

"Some officials here think that the use of plutonium is not a new suggestion," McConnell said. "But it is clear employees have not heard the word before. I've been here before, and the subject of plutonium is new to me."

McConnell said that after the DOE report is issued in September, he will meet with employees.

"I'll be interested in hearing from employees to see if they think it meets the adequacy test," McConnell said. "If it is inadequate, I'm sure the employees will tell us."

U.S. Energy Secretary Bill Richardson has promised a complete and unbiased report on the safety of the plant. Richardson said if past practices by DOE caused heath problems for curren and former workers, DOE shoul compensate those who suffere illnesses.

Meanwhile, McConnell sai reports of contamination at the plant and DOE's priority for cleaning it up should increase significantly because of national news coverage about conditions at the plant.

"We are going to try to use this publicity to establish as a grea national priority the cleanup of this facility," McConnell said. "The story of this plant has moved from a mid-level issue that very few people were paying attention to, to a national priority."

McConnell said he has battled with DOE officials to make cleanup of the Paducah plant a high priority. He said Congress allocated $373 million last year to begin the cleanup of DOE facilities in Paducah; Portsmouth, Ohio; and Oak Ridge, Tenn. However, he said, DOE has been slow to put together a cleanup plan and to use the money. He said he and fellow Kentucky Sen. Jim Bunning met with Richardson several weeks ago to encourage him to spend the money.

Jimmie Hodges, DOE site manager, said some of the cleanup has already begun, but a total cleanup plan hasn't been finalized. He acknowledged that planning for the cleanup is behind the schedule that called for most of it to be completed by 2007. He said the delay is because of the complexities of putting a plan together.

McConnell said the Energy and Water Subcommittee of the Appropriations Committee, of which he

The Paducah Sun
8/11/99 - P. A1

Plutonium levels same as anywhere, expert says

By Joe Walker
Copyright 1999, The Paducah Sun

Trace amounts of plutonium near the Paducah Gaseous Diffusion Plant are like those found elsewhere and are no significant public risk, says Kentucky's chief radiation health expert.

Dr. John Volpe, manager of the Radiation Health and Toxic Agents Branch of the state Department for Public Health, in Frankfort, said years of state sampling have shown only occasional traces of plutonium in the plant environment.

"It's below our detection limits in most cases, and if we do see it, it's at background levels," Volpe said. "There's the potential to find those types of levels in Frankfort or anywhere in western Kentucky. You've got to remember there was a lot of above-ground nuclear testing in the 1950s and '60s."

Although it is impossible to distinguish fallout plutonium from that of plant-related contamination, the levels occasionally found in soil, sediment, water and wildlife around the plant are not something its neighbors should worry about, he said.

"I do not see plutonium as a major environmental health risk," Volpe said. "It's not in our data, and we sample everything the Department of Energy does."

In the early 1990s, a DOE-tested residential well that showed a trace amount of plutonium was retested by the state and found free of plutonium, Volpe said. He explained that he was skeptical of the first test because the well showed no technetium-99, a common groundwater contaminant around the plant and akin to plutonium.

"When our office received the report (of the first test) and it showed plutonium, that was our first indication that somebody hadn't run the analysis properly in the lab," he said. "We couldn't understand how plutonium, which moves very slowly in the environment, was in the well, whereas technetium, which moves very fast, wasn't in the well."

In 1993 and '94, tiny amounts of plutonium were found in the muscle tissue of two deer tested by DOE, which owns the plant. The Paducah Sun, Associated Press and other state newspapers reported the findings, published in DOE annual environmental reports. Volpe said that while the state could not retest the deer because they had been disposed of, his calculations showed little risk had the deer meat been ingested.

"If one person actually ate the entire deer and you took the worst-case scenario, it would have been an extremely low dose," he said.

Volpe, who has been following international news coverage about plutonium at the plant, said he is not discounting its threat to workers at the plant. His department tests only the environment outside the plant; DOE and the Nuclear Regulatory Commission oversee matters of worker health.

"I do not want to understate the importance of this," Volpe said. "I understand the workers' concerns. We can't speak to what goes on in the plant."

Plutonium came into the plant from about 1953 to 1975 as a contaminant in residual uranium from nuclear reactors in Washington state and South Carolina that made nuclear weapons. The uranium was recycled at Paducah for use in nuclear fuel.

Volpe said Paducah plant officials informed his staff and other state environmental officials several years ago about the presence of plutonium, technetium and similar radioactive contaminants called transuranics in the spent reactor material.

"They were fairly open about it to me, and I asked them extensively about it," he said.

Many plant workers have said they never heard of plutonium's being in the workplace. DOE officials, who are investigating the problem, admit poorly communicating the plutonium situation.

Plutonium at the plant has gained international publicity since Sunday, when The Washington Post published an extensive article. The article focused on a sealed lawsuit by three plant workers alleging that former plant contractor Lockheed Martin defrauded the government regarding plutonium and other contamination that made workers sick.

The Post's article said plant contractors measured high levels of plutonium on plant grounds and in ditches outside the plant soon after the discovery of technetium and the solvent trichloroethylene in groundwater in 1988. Volpe said those measurements were in and near an effluent ditch used in the 1950s and '60s, when much of the reactor tails were processed at Paducah.

Because the diversion ditch handled effluent, the levels were no surprise to him or to DOE, which knows it eventually will have to clean up the ditch, Volpe said. But he added that the plutonium is not a threat to the plant surroundings.

"If you follow that ditch, it leads to Little Bayou Creek (which runs from the plant toward the Ohio River)," he said. "We have an automatic sampler that samples the creek every six hours, and we've never found plutonium."

Larger doses released worldwide since 1945

The Paducah Sun
8/11/99 - P. A1

By Joe Walker
Sun Business Editor

Plutonium, which entered the Paducah Gaseous Diffusion Plant from about 1953 to '75, came from other U.S. Department of Energy nuclear weapons plants.

The highly radioactive metal was a contaminant in uranium left over from the weapons-making process. Plutonium arrived in freight cars as a fine black powder, or oxide, that former plant workers recall seeing and handling while processing the spent uranium, called "rat tails," into nuclear fuel.

A silvery-white metal, plutonium acquires a bronze-like color, followed by a gun-metal blue and finally a dull black or green as it oxidizes.

During nuclear testing from 1945 to '75, as much as five tons of plutonium-239, the most common plutonium isotope, was deposited in the atmosphere, much of it in the Northern Hemisphere, according to a March study prepared for DOE.

Much smaller amounts were released from the Chernobyl nuclear reactor accident in 1986 and other releases like it.

Nuclear fuel reprocessing plants, such as DOE's Savannah River facility in South Carolina, release fractions of grams of plutonium yearly into the atmosphere in the course of production, the study said.

Plutonium, linked to cancer, is listed in the highest toxicity group among radioactive materials mainly because it emits very high energy particles. Those alpha particles are regarded as generally less hazardous than other forms of radiation outside the human body because they are stopped by very thin materials such as skin.

"If you're standing next to a 55-gallon drum, it wouldn't be a problem although you always need to be careful with radiation," said Dr. John Volpe, manager of the Radiation Health and Toxic Agents Branch of the state Department of Public Health. "Although other pathways, like ingestion, are a concern, the major pathway one has to worry about with plutonium is inhalation."

Former workers at the Paducah plant have said they breathed dust apparently containing plutonium. According to the DOE study, plutonium can pose a significant radiation hazard because the high energy of the alpha particles is deposited within a thin layer of living tissue, such as the lungs, increasing the risk of cell damage.

Plutonium has a half-life of 24,000 years. That means that 10 units of plutonium will dissipate to five units in 24,000 years, five units will become 2½ units in another 24,000 years, and so on.

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Editorial

The Paducah Sun
8/11/99 - P. A4

RIGHT TO KNOW

Hiding risks from workers unconscionable

For more than 40 years, workers at the uranium enrichment plant in Paducah toiled for the federal government, accepting the minor risks associated with handling low-level radioactive materials in return for comparatively high wages and the satisfaction of doing important work for the nation. Now it appears the the workers and the plant's neighbors may have been subjected to far more serious risks — without their knowledge. As Energy Secretary Bill Richardson put it, this type of secrecy — assuming it occurred — is "inexcusable."

In truth, if information on the plant's involvement in recycling residual uranium containing traces of highly radioactive plutonium was deliberately withheld from plant employees and the public, the government violated the trust of the workers and the community. Paducah residents have strongly supported the plant since it opened in 1952, recognizing that it provides good jobs and economic opportunities for thousands of families in the region. If that trust has been broken, federal officials must pay the price of restoring it.

Fortunately, Department of Energy officials appear to be taking responsibility for investigating health concerns at the gaseous diffusion plant and dealing with any problems that may have resulted from the recycling of uranium containing plutonium and other highly radioactive heavy metals. The recycling reportedly occurred during a period stretching from the mid 1950s to the mid 1970s.

However, the DOE's public response was driven by a story in The Washington Post that described allegations contained in a lawsuit filed by current and former plant workers. This raises a critical question: Why did it take a lawsuit and a published report for DOE officials to go public about the plutonium issue?

At minimum there was, as one DOE official admitted, a "communications problem." Congress will have to use its investigatory powers to determine if it was something worse — a calculated effort to keep workers and the public in the dark about the presence of plutonium in the materials the plant received.

In an interview on NBC's "Today" show, Secretary Richardson succinctly summarized the federal government's duty to the Paducah workers, saying that "it's inexcusable if the government concealed information, along with the contractors, that in the 50s and 60s and 70s these workers might have been exposed to plutonium. If that is the case ... and we are investigating, these individuals need to be treated and compensated, the government has to apologize."

Richardson's interest in the health of current and former plant employees is commendable, but the government's obligation in this matter may extend beyond the boundaries of the enrichment plant. The DOE has acknowledged that it must include the health concerns of people who live near the plant in its study of possible plutonium contamination.

It should be emphasized that, at this point, there are no documented cases of illnesses affecting plant workers that can be linked to

exposure to plutonium or other radioactive fission byproducts. The presence at the plant of plutonium, which is used to make nuclear bombs, is disturbing because the substance is far more radioactive than the uranium workers at the plant routinely handle.

Even more disturbing is the DOE's and the plant contractors' alleged failure to inform plant employees that the recycled uranium contained traces of plutonium. Many current and former employees insist they had no idea they may have been exposed to highly radioactive, cancer-causing substances.

Similar reports are coming from workers at government facilities in Oak Ridge, Tenn. Contaminated uranium was also shipped to Oak Ridge in the 50s, 60s and 70s.

The federal government covered the nation's nuclear program with a necessary veil of secrecy during the Cold War. But keeping potential health hazards secret from atomic workers is wholly unjustified and plainly wrong. It's still not clear if the federal government has learned that lesson, despite a recent history of controversy, lawsuits and expensive settlements involving nuclear programs.

Under these circumstances, it's essential for energy department officials to demonstrate openness and accountability by following through on their promise of a thorough investigation of all health problems that may be related to exposure to plutonium at the plant.

The DOE also is obligated to investigate the recycling of residual uranium at Paducah and other government facilities to determine the extent of the risks the workers were exposed to as well as whether they were advised of the risks and properly protected from them.

On this point, Congress can play a legitimate role by promptly conducting hearings on the plutonium question. U.S. Sen. Mitch McConnell and 1st District U.S. Rep. Ed Whitfield already are calling for a congressional inquiry into the claims contained in the lawsuit filed against two former plant contractors, Lockheed Martin and Martin Marietta. Gov. Paul Patton is properly seeking information that would allow the state to play a role in helping people who may have been affected by the tainted uranium.

If the health of plant workers and residents suffered because of their unwitting involvement in what amounted to a covert program, the federal government must ensure that they receive full financial compensation.

Beyond that, federal officials need to expand and intensify ongoing efforts to clean up all forms of environmental contamination produced by the plant.

The cost to taxpayers of making things right in Paducah and other areas affected by possible government irresponsibility in managing the nuclear weapons program potentially is huge. But this is a national obligation that cannot be avoided. If — and we must emphasize this remains a big "if" — the Cold War caused civilian casualties here in Paducah, the truth must be fully exposed — and the victims and their families must be compensated.

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In Harm's Way, But in the Dark

By Joby Warrick
Washington Post Staff Writer
Sunday, August 8, 1999; Page A1

Sign posted at the Paducah Gaseous Diffusion Plant, which is suspected of being the cause o higher than normal radioactive contamination in the area. (Michael Williamson — The Washington Post)

PADUCAH, Ky. – Thousands of uranium workers were unwittingly exposed to plutonium and other highly radioactive metals here at a federally owned plant where contamination spread through work areas, locker rooms and even cafeterias, a Washington Post investigation has found.

Unsuspecting workers inhaled plutonium-laced dust brought into the plant for 23 years as part of a flawed government experiment to recycle used nuclear reactor fuel at the Paducah Gaseous Diffusion Plant, according to a review of court documents, plant records, and interviews with current and former workers. The government and its contractors did not inform workers about the hazards for decades, even as employees in the 1980s began to notice a string of cancers.

Radioactive contaminants from the plant spilled into ditches and eventually seeped into creeks, a state-owned wildlife area and private wells, documents show. Plant workers contend in sealed court documents that radioactive waste also was deliberately dumped into nearby fields, abandoned buildings and a landfill not licensed for hazardous waste.

The sprawling Kentucky plant on the Ohio River represents an unpublished chapter in the still-unfolding story of radioactive contamination and concealment in the chain of factories across the country that produced America's Cold War nuclear arsenal. Opened in 1952 in an impoverished region, the 750-acre plant built a fiercely loyal work force of more than 1,800 men and women who labored in hot, stadium-sized buildings turning trainloads of dusty uranium powder into material for bombs.

Today, the Department of Energy contends that worker exposure was minimal and that contamination is being cleaned up. A lawsuit filed under seal in June by three current plant employees alleges that radiation exposure was a problem at Paducah well into the 1990s.

The Post's investigation shows that contractors buried the facts about the plutonium contamination, which occurred from the mid-1950s to the mid-1970s, in reports filed in archives. Plutonium, a core ingredient in nuclear bombs, is a highly radioactive metal that can cause cancer if ingested in quantities as small as a millionth of an ounce. The Paducah plant was designed to handle only uranium, a mildly radioactive metal.

"The community to this day has no idea of the kinds of contaminants they were exposed to," said James W. Owens, a Paducah lawyer representing residents whose water has been polluted by the plant.

Health consequences remain unclear. No comprehensive study of worker medical histories has been attempted at Paducah. In neighborhoods where older workers live, stories abound of cancer clusters and unusual illnesses. One 20-year veteran worker who died in 1980 compiled a list of 50 employees he worked with who had died of cancer.

"Everything was so safe, so riskless," the worker, Joe Harding, said in an interview just before his death. "Today we know the truth about those promises. I can feel it in my body."

Even though the plant's procedures and purpose have changed – Paducah's enriched uranium is now used in commercial nuclear power plants – problems have continued. Workers weave between makeshift fences that cordon off hundreds of radioactive "hot spots" scattered across the complex. In one corner of the plant, mildly radioactive runoff trickles from a nearly half-mile-long mound of rusting barrels that still contain traces of uranium.

"The situation is as close to a complete lack of health physics as I have observed outside of the former Soviet Union," Thomas Cochran, nuclear program director for the Natural Resources Defense Council, said in documents filed in the lawsuit.

The Department of Energy, which owns the plant, said it could not comment on allegations made in the suit because of the court-ordered seal. The agency is investigating the charges and dispatched a team to Paducah to determine if conditions posed an immediate threat to workers or the public.

Energy Secretary Bill Richardson said the agency's national security goals had "sent many of our workers into harm's way," but he said the agency must now live up to its responsibility to "right the wrongs of the past." Two weeks ago, Richardson pledged millions of dollars for medical monitoring of nuclear workers who were exposed to beryllium, a highly toxic metal.

"The Department of Energy will continue to take any actions that are necessary to ensure the protection of public health, the workers and the environment," he said.

Still, agency officials, in a written response to questions from The Post, strongly defended past safety practices at Paducah and said no workers are at risk today.

"The plant's monitoring data did not indicate an accumulation of [plutonium and other highly radioactive wastes] in the workplace or the environment that would be a health concern to workers or to the public," the DOE said.

That position is vigorously contested in more than 2,000 pages of documents filed in the lawsuit by two of the plant's health physicists, or radiation safety experts, and a veteran worker who had his esophagus removed after three decades of work inside contaminated buildings. Copies of the documents were obtained by The Post from government sources.

"The management line for years has been there was an insignificant amount" of plutonium at Paducah, said Mark Griffon, a health physicist at the University of Massachusetts at Lowell who is participating in a federal study of radiation conditions at nuclear weapons plants, including Paducah. Griffon reviewed plant documents provided by The Post.

"If the levels were this significant," he said, "it raises an important question: Why weren't workers ever monitored?"

The two health physicists suing the plant say in court documents they tried to call attention to the radiation problems but were confronted by a culture of unconcern.

"I was told by my superior . . . in so many words that 'this is Paducah – it doesn't matter here,' " said one of the physicists, Ronald Fowler, 50, who came to the plant in 1991.

The suit was brought under a law that allows employees to collect payment for exposing fraud against the government. It was filed under seal to give Justice Department officials an opportunity to decide whether to join the suit or begin a criminal investigation.

The suit names Lockheed Martin and Martin Marietta, which managed the uranium enrichment plant during the 1980s and 1990s. It does not name the original manager, Union Carbide, which ran the facility for a 32-year period during which the bulk of the contamination occurred. None of the companies had been served with the suit and none would comment on the allegations.

The current plant operator, U.S. Enrichment Corp., a government-chartered private company that assumed management this year, concedes past problems but says safeguards are now in place. USEC, which sold shares to the public last year, says it has fully disclosed the plant's environmental problems to regulators, workers and stockholders.

"It was acknowledged by all sides that contaminated conditions existed, . . . but USEC wasn't responsible for them," said Jim Miller, USEC executive vice president.

Paducah is the latest DOE facility to be rocked by lawsuits and revelations of contamination. Cleaning up the complex is expected to cost $240 billion and take at least 75 years.

Measured by the gram, the contamination at Paducah isn't nearly as extreme as that in plutonium production plants such as Washington state's Hanford Nuclear Reservation, where vast swaths of land have been sealed off from humans. But unlike the workers at those plants, employees at Paducah did not know of the risks in the uranium dust they breathed every day.

Worker exposure to such dust has cost the government in the past. The Energy Department paid a $15 million settlement five years ago to former workers who had breathed uranium dust at the Fernald Feed Materials Production Center near Cincinnati.

The difference between the dust at Fernald and that at Paducah comes down to one word: plutonium.

For 2 Decades, Trains Brought Unknown Danger

The Paducah complex was the second of three U.S. government plants designed after World War II to create enriched uranium. The plants were operated for the government by private contractors who over time were paid bonuses for running safe, efficient facilities.

In the beginning, uranium ore was scarce. The Atomic Energy Commission, forerunner of today's Energy Department, tried to fill the gap by "recycling" leftover uranium – from nuclear reactors that made plutonium for bombs – through the enrichment process at Paducah.

From 1953 to 1976, more than 103,000 metric tons of used uranium was shipped to Paducah, records show. It arrived in freight cars as a fine black powder. Unknown to workers, the powder contained dangerous substances left over from the plutonium-making process – fission byproducts such as technetium-99 and heavy metals known as "transuranics": neptunium and plutonium.

"Plutonium is roughly 100,000 times more radioactive per gram than uranium," said Arjun Makhijani, president of the Institute for Energy and Environmental Research.

Over time, through spills and waste discharges, the contaminants accumulated in the miles of pipes used to gasify and enrich uranium, around loading docks and in ditches, documents show.

Plant officials were aware of the plutonium and other contaminants as early as the mid-1950s – it made their recycled uranium less efficient. But they believed the amounts were too small to pose a health threat.

Today, the DOE is able to rely only on a contractor's estimate of the total amount of contaminants introduced in that period: 12 ounces of plutonium, 40 pounds of neptunium and 1,320 pounds of technetium-99.

The government today takes the same position as it did in the 1950s: The amounts were most likely not enough to harm workers. "The general protection provided to workers from the hazardous effects of uranium would have provided adequate protection" from the contaminants, the DOE statement said.

But documents obtained by The Post show that plant officials became increasingly concerned about the contaminants. A 1992 report by Martin Marietta concluded that they caused "significant" environmental problems and "also pose a radiation hazard to the workforce." A 1988 study done for the DOE by a private contractor said the plutonium could "represent a significant internal dose concern even at very low mass concentrations."

Plant records draw an instructive comparison that underlines the hazards posed by plutonium: The 12 ounces of plutonium in the black powder delivered more than twice as much radiation into the environment as the 61,000 pounds of uranium that flowed out of the plant in waste water into the Ohio River between 1952 and 1987.

Bosses Took Threat With a Grain of Salt

In the noisy, cavernous buildings where uranium was processed, workers did not receive the warnings. The conditions there were "extremely dusty . . . sometimes to the point where it was very difficult to see or breathe," said Garland "Bud" Jenkins, 56, a 31-year-veteran uranium worker and one of the three employees involved in the lawsuit against Lockheed Martin.

To protect their skin from the uranium dust, workers wore cotton

coveralls and gloves. But respiratory protection was optional – old Army gas masks, which fit poorly and were seldom used, former and current workers said.

At lunchtime, workers brushed black powder or green uranium dust off their food. "They told us you could eat this stuff and it wouldn't hurt you," said Al Puckett, a retired union shop steward. To dramatize the point, he said, some supervisors "salted" their bread with green uranium dust.

The workers took the dust home at shift's end.

"We frequently discovered that our bed linens would be green or black in the morning, from dust that apparently absorbed into our skin," Jenkins said.

Exposure to uranium dust decreased after the late 1970s, when the plant stopped receiving the black powder and began processing a more refined form of uranium. In 1989, the DOE adopted more stringent worker safety rules.

By then the plutonium had permeated the land around the plant. In the 1960s and 1970s, when the powder spilled, workers would shovel it up and wash the remnants into the nearest ditch, Jenkins said. More than a dozen ditches flow directly from the plant onto state property and private lands.

There are no nationwide limits for plutonium in soil; cleanup standards depend on modeling the degree of public access to the contaminated spot. But the DOE has set cleanup limits at nuclear blast sites in the South Pacific of 15 picocuries of plutonium per gram of soil.

Contractors measured plutonium at levels up to 47 picocuries in ditches outside the plant and 500 picocuries on plant grounds.

Those measurements were made after the first evidence of environmental problems outside the plant surfaced in 1988, when a county health inspector found technetium and chemical carcinogens from the plant in a farmer's well. The discovery of the poisoned wells prompted a multimillion-dollar ground-water cleanup under the Environmental Protection Agency's oversight.

Although plant managers posted creeks and ditches with warning signs in the early 1990s, the signs do not refer to plutonium or any other radioactive contaminants. Some warn of possible contamination with cancer-causing chemicals; others merely caution against eating local fish.

Lawsuit Alleges Deliberate Dumping

In addition to the substances that flowed or spilled out of the plant through the drainage ditches, the employees contend in their lawsuit that a wide variety of contaminated substances were deliberately dumped into the environment. Spilled black powder and empty radioactive waste containers allegedly were placed in dumpsters and trucked to a sanitary landfill on DOE property licensed only for trash and garbage. Rubble from demolished buildings and contaminated railroad ties allegedly were dumped in nearby woods and fields. Slag from uranium smelters was put in abandoned concrete bunkers in a state wildlife area outside the plant, according to the lawsuit.

"There was only one dumpster for all waste, whether radioactive, hazardous, toxic or ordinary," Jenkins said.

Plant records describe at least two dozen unlicensed radioactive debris piles on state lands outside the plant. Last year, ground-water tests turned up technetium directly beneath the sanitary landfill.

A 1990 DOE audit of Paducah found inadequate controls over waste disposal and a faulty system for tracking contamination that forced managers to rely on "word of mouth."

Charles Deuschle, 56, a health physics technician and the third employee in the lawsuit, said he was "shocked" when his surveys discovered radioactive contamination in such places as the plant's cafeteria.

"I saw conditions that would never have been tolerated in any other nuclear location where I have worked," Deuschle, who came to Paducah in 1992, said in court documents.

Internal plant surveys included in the suit found high levels of radiation on street surfaces, manhole covers and loading docks and in locker rooms as recently as 1996.

The plant's current managers maintain that all significantly contaminated areas have been addressed. "Hot" surfaces have been coated with absorbent paint, and warning signs have been posted, they said. Rope fences keep passersby away from radioactive equipment rusting in the open. Drain pipes and fire hydrants are coated with warning paint. Two dilapidated buildings where the black powder was once processed are padlocked. In 1997, regulatory oversight of the plant was transferred to the Nuclear Regulatory Commission, which declined to comment on allegations in the sealed lawsuit.

Even the employees involved in the suit concede that safeguards have improved recently. But they insist that problems remain. This spring,

elevated radioactivity was found in a parking area near the administration building, plant documents show.

Soil collected from a ditch outside the plant's fence by The Post in June and analyzed at a commercial lab contained 2.6 picocuries of plutonium, slightly higher than the NRC's suggested guideline for cleaning up nuclear sites.

The Post, using two hand-held detectors, also found sharply elevated radiation levels in the debris piles on the state wildlife lands. One such area was an unmarked pile of rotting railroad timbers near fishing ponds and campgrounds.

Public Reports Tell Only Part of the Story

Environmentalists, plant workers and neighbors claim that plant officials play down the hazards.

"They cloak it in jargon," said Mark Donham, a member of a citizens advisory board that meets monthly with plant cleanup officials. "You have to order the documents and then spend hours and hours looking at them to learn anything."

DOE officials say the facts and figures about the plutonium contamination inside the plant have been duly recorded since 1991 in thick inspection reports. But these are kept in archives rarely visited by the public.

In the annual environmental reports that circulate to the public, the contamination is described as "trace" amounts of "radionuclides," a catchall term that can include mildly radioactive uranium as well as highly radioactive plutonium.

A 1991 "site investigation" report, done by the plant's contractor and stored in the archives, shows much higher levels of plutonium than the annual environmental reports. The DOE said the reports use different methods and measure different things.

The result has been that the DOE can claim full disclosure about the contamination while plant workers and neighbors remain in the dark, said Owens, the attorney for the plant's neighbors.

"The company has engaged in a cynical disinformation campaign that centered on downplaying risks and presenting confusing and misleading information," he said.

Inside the plant, the first disclosure of plutonium to workers came around 1990 after managers summoned top union leaders to discuss

the results of tests ordered after the state found the poisoned wells.

"They took it seriously," a union official, speaking on the condition of anonymity, said of Martin Marietta's presentation. But "the health effects weren't viewed as serious. We just vehemently stressed that the contamination should be cleaned up."

Plant managers insist that workers today are fully aware of the potential hazards. USEC cites worker training programs that it says include a briefing on plutonium and other radioactive hazards at the plant.

But officials with the union's Washington office contend workers still don't know a fraction of what they were exposed to. "What we're seeing now," said Daniel Guttman, former staff director of the federal Advisory Committee on Human Radiation Experiments, "is the outcropping of the glacier."

Deficient Monitoring Compounded the Risk

The health effects for Paducah workers remain an open question.

The DOE said 442 Paducah workers were tested in 1997 and only 8 percent displayed measurable amounts of radiation. It said screening tests since 1992 have found no evidence of plutonium exposure in workers.

But the greatest exposure to workers would have occurred before the enhanced monitoring that began in the late 1980s.

In 1990, the DOE audited safety practices at Paducah and found scores of deficiencies in radiation monitoring and worker protection. The audit team said Paducah failed to properly monitor radiation to workers' internal organs – even though plant managers had been repeatedly warned to do so.

Radiation-measuring equipment was either missing or not properly calibrated, the report said, and workers weren't being tested for the kinds of radiation known to exist at Paducah. Whether the plant's equipment and personnel were even capable of detecting exposure to plutonium and other transuranics was "questionable," the audit said.

Bolstering claims by workers that they had been left in the dark about radioactive hazards, the report found no mention of transuranics in plant safety procedures.

"Onsite environmental radiological contamination conditions are largely unknown," the report said. "A formal program with

well-defined monitoring, sampling and analysis requirements does not exist."

Independent experts are investigating Paducah as part of two national studies of environmental and safety issues in the U.S. nuclear weapons complex. Both studies are relying primarily on data supplied by the plant. Officials brought in two years ago to review past radiation hazards told The Post they were not informed that Paducah workers may have been exposed to significant amounts of plutonium.

Neither was Harold Hargan, a plant worker for 37 years. Hargan was one of about six workers who he says were told in 1990 that a test had found plutonium in their urine.

"It surprised me. Hell, it surprised the doctor," Hargan said. "Everybody knew there was no plutonium at Paducah."

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STATEMENT BY JIMMIE HODGES
DEPARTMENT OF ENERGY'S PADUCAH SITE MANAGER

"We take seriously any concerns about health, safety and environmental issues. Recently, as a result of concerns that were raised about whether workers and the public are unknowingly being exposed to dangerous levels of radioactivity, an internal Department of Energy (DOE) team was formed and dispatched to the Paducah Gaseous Diffusion Plant site. They evaluated the DOE-controlled areas and operations and determined that, based on review to-date, there are no imminent threats to the public health, worker safety or the environment. However, DOE's review will continue until we can answer each and every concern.

As a result of known contamination dating from the 1950's, the Paducah plant area was designated a Superfund site in 1994. Because it is a Superfund site, we are managing the clean-up under an agreement among DOE, the Commonwealth of Kentucky and the Environmental Protection Agency. This agreement establishes milestones and a schedule for clean-up. We are working hard to continue to meet our commitments under this agreement and to promptly address any new concerns that may arise.

Additionally, because the United States Enrichment Corporation (USEC) runs the uranium enrichment facilities at the Paducah site under a Nuclear Regulatory Commission (NRC) certificate, we have notified the NRC of our review and they are working with the Energy Department to address all concerns."

Background:
Uranium enrichment activities were officially transferred to the USEC in July 1993 under a lease agreement that exists between DOE and USEC for use of the enrichment facilities. The department is responsible for environmental clean-up of legacy waste, waste generated through on-going DOE activities and for management of various uranium inventories.

The Nuclear Regulatory Commission assumed full regulatory authority over the activities of the United States Enrichment Corporation on March 3, 1997.

NEWS MEDIA CONTACT:
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FOR IMMEDIATE RELEASE
August 8, 1999

STATEMENT BY U.S. SECRETARY OF ENERGY BILL RICHARDSON ON THE PADUCAH GASEOUS DIFFUSION PLANT

"We are very concerned about recent allegations that past activities at the Paducah Gaseous Diffusion Plant have endangered the health of employees. We owe a great debt to the workforce at Paducah, and we are fully investigating these issues.

In June, we dispatched a team of expert health physicists to assess the situation. They did not uncover any imminent threats to the public health, worker safety or the environment, but we are continuing to investigate these concerns. Further, the Department of Energy is in close contact with the Nuclear Regulatory Commission and other agencies to address these issues and assure the protection of workers and the public

We are taking the following steps.

First, I've ordered a full investigation to examine these issues. I am determined to uncover more about what actually occurred, who was responsible and what must be done to assure that it never happens again.

Second, we are asking the Institute of Medicine of the National Academy of Sciences to independently investigate the relationship between hazardous exposures and illnesses in our workers at Paducah and other Energy Department sites.

Third, I announced last month an initiative to provide compensation to current and former workers who are ill because of exposure to beryllium at Energy Department nuclear sites. I'm asking the White House to expand the legislation, soon to be sent to Congress, to include workers who have been exposed to radioactive materials.

- more -

L-99-048

Fourth, we are initiating a comprehensive study of worker medical history since the 1950s and we

are instituting an immediate medical surveillance program for current workers. This is in addition to the medical monitoring that we are already doing for former workers, to determine whether they have been made sick from exposure to radioactive materials in the course of their work at the Paducah plant.

Fifth. I have asked Dr. David Michaels, the Department's Assistant Secretary for Environment, Safety and Health to go to Paducah this week. He will meet with workers and the public to assess and report back to me.

Sixth. I have ordered the Department's Office of General Counsel to assess the contractual and legal responsibilities of our contractors. I will ask the contractors to provide me with all of their health and environmental records. I will hold all of our contractors, past and present, responsible for their actions.

Lastly, I have ordered the Department's experts to reassess our Fiscal Year 2000 budget request to assure me that it addresses all of the important health and safety issues at our gaseous diffusion plant sites. If it does not, we will recommend enhancements to the Congress.

These actions are warranted given the concerns raised. I will not rest until these issues are fully dealt with and any injured workers are fairly compensated."

- DOE -

L-99-048

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

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Vicki Jones

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(Kentucky)

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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.

DRAFT Meeting Minutes
Paducah Site Specific Advisory Board
July 15, 1999

The July 15, 1999, Paducah Site Specific Advisory Board (SSAB) meeting took place at the Paducah Information Age Park Resource Center in Paducah at 5:30 p.m.

The following board members were present: Nola Courtney, Mark Donham, Judy Ingram, Vicki Jones, Merryman Kemp, Linda Long, Doug Raper, Craig Rhodes, Jim Smart, and Bill Tanner. *Ex officio* member present was Todd Adams. The facilitator present was Steve Kay. The United States Department of Energy (DOE) federal coordinator present was John D. Sheppard. Brian Begley, LeRoy Chittenden, Mike Guffey, Linda Martin, and Jon Maybriar, all of Kentucky Division of Waste Management (KDWM) were present. Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Jimmy Massey, Shirley Speer, and Debbie Wattier.

Agenda

Steve Kay called the meeting to order and asked if there were any modifications to the agenda. The agenda was amended to add a briefing by Nola Courtney on the Site Specific Advisory Board (SSAB) National Transportation Workshop conference call. Craig Rhodes added the SSAB website. The modified agenda was approved and adopted.

Facilitator's Orientation

Steve Kay reviewed highlights of the SSAB bylaws. Kay said the facilitator's role is to help the board stay on the agenda, to reach closure on issues, and to check for consensus when there are decisions to be made. His role also includes making sure all views are heard and valued until a decision is reached.

Minutes

The minutes from the June 17, 1999, were amended to clarify a statement by Mark Donham in the Lifecycle Baseline section. In the Transportation Workshop section Nola Courtney added, "and Doug Raper" as planning to participate in an upcoming conference call. She also requested the addition of "SSAB" to the National Transportation Working Group title. Minutes were approved by consensus and adopted.

Public Comments from Guests

There were no comments made during this period.

Information Handouts

John Sheppard handed out DOE News Release titled, "Richardson Unveils Health Initiative for DOE Workers." He also handed out "Instructions to log on and participate in the Paducah TCE Discussion Forum," including the website address for the Innovative Treatment Remediation Demonstration (ITRD). Mark Donham asked whether groundwater information from the June ITRD session at Paducah would be available. Sheppard said this information is expected to be part of the minutes from that session when posted.

Environmental Management and Enrichment Facilities Project Updates

Vortec Update

Linda Martin of the Kentucky Division of Waste Management (KDWM) asked if DOE planned to go forward with the Vortec project. John Sheppard said the status is that DOE will issue a revised Draft Environmental Assessment soon.

Depleted Uranium Hexafluoride (DUF_6)Programmatic Environmental Impact Statement Update

A fact sheet was provided on the PEIS for disposition of DUF_6 and the DOE's Final Plan for Conversion of DUF_6. The status of the conversion plants that DOE plans to build at Paducah and Portsmouth was discussed. The number of jobs that would be created by the new plants has not been determined. Mark Donham said that the economic impact of the plant is of significant interest, but that environmental issues should be considered. Donham asked if a whole new cylinder wash process would be used at the new plants. Jimmy Massey said that the current washing system has been effective for years at the existing gaseous diffusion plants. This system would not have the capacity for both the gaseous diffusion plant and the DUF_6 conversion plant.

In a month, DOE plans to issue a Draft Request for Proposals for the conversion plants and the current inspection and maintenance program for the cylinders.

Sitewide Cumulative Effects

Mark Donham said that as soon as a decision is made about a Sitewide Cumulative Effects Analysis this subject would be relative. Merryman Kemp suggested leaving this subject on the agenda as a reminder to ask about impacts. Donham said that a Sitewide Cumulative Effects Analysis needs to be done earlier than DOE plans. Bill Tanner said that a sitewide analysis might not be needed if the risk analyses done at the project level is comprehensive. He suggested that the board request an overview on the National Environmental Protection Act (NEPA)/cumulative effects process by Rich Bonzcek and David Allen.There was a decision made to put this on the agenda for the September meeting and devote time to this in order to make a decision on the board's position. Merryman Kemp said that written material would be helpful. John Sheppard suggested that members review past meeting minutes and handouts for background. Shirley Speer noted that the member orientation kit has NEPA information.

Waste Area Group 6

No comments.

ITRD

Discussion was held regarding the ITRD meeting in June. Mark Donham, Craig Rhodes, and Jim Smart attended part of the meeting. Mark Donham stated that at the ITRD meeting someone had said the highest concentration of TCE in groundwater is near the location of the railroad cars transfer area at the C-400 Chemical Cleaning Facility at the plant. Craig Rhodes said that it also was stated that cleanup could not be done in that switch area because the crane is still in operation for current production. Steve Kay asked: Is it that operations take precedence over remediation? John Sheppard and Jimmy Massey said that it is complicated to do environmental remediation on any operating plant. Brian Begley (KDWM) said the ITRD process looks at limitations and looks at technologies that are available to deal with the limitations. Sheppard said DOE is looking at a broad spectrum of technologies that can be used during operations.

Discussion of the importance of early involvement in the decision-making process took place. John Sheppard added that being at the ITRD meetings is an early-on information opportunity for the board. Sheppard noted that the CERCLA process provides opportunities for public involvement. He added that forums such as the ITRD are helpful for regulators and the SSAB because they hear the whole technical discussion. Jim Smart commented that he had appreciated getting to attend the ITRD meeting and thought the information was helpful. Linda Martin of KDWM noted that the SSAB can ask representatives of the Kentucky Environmental Cabinet who serve on the ITRD Paducah team to make presentations to the SSAB. Brian Begley of KDWM said that as a member of the ITRD team that he could bring ideas from the SSAB to the team, and provide information to the SSAB.

Steve Kay summarized that the board will keep the ITRD/Groundwater Operable Unit process on the agenda for discussions and updates on progress, and that members can monitor the ITRD website also for updates.

Paths to Closure

Mark Donham discussed areas of the May 1999 DOE document, *"Accelerating Cleanup: Paths to Closure,"* which has been provided to the board. He said the board should be aware of various sections of the document that would be of interest. These were:

- the plan to: maximize use of the on-site landfill through revisions to the landfill waste acceptance criteria.
- the "end use scenario" in the document states that the burial grounds will be kept in place with long-term monitoring.
- two actions listed as significant critical path items: removal of scrap metal and shipment of transuranic (TRU) wastes to Oak Ridge and then to Waste Isolation Pilot Plant (WIPP).
- plans to off set costs of scrap metal by selling some.
- the "Priorities List" has been taken out of the *Paths to Closure* document.

Bill Tanner asked if DOE plans to involve the private sector in the scrap metal removal project. Jimmy Massey said that is the plan. Tanner said that if the government breaks even on the project, that is positive because the scrap would be removed. He said it would be good to keep the scrap metal project on the agenda for periodic updates.

Community Relations

Judy Ingram provided copies of the SSAB's ad for the DOE July 27, 1999, workshop, a handout for the workshop, and poster for the workshop for review by the board, and comments were noted. The board will host an information table at the event.

Judy Ingram reported that the subcommittee is offering an exclusive story to *The Louisville Courier-Journal*. The paper's local reporter will be invited to sit down with the board and different people involved and do a broad, open interview. An informal proposal was made and approved. John Sheppard asked if this interview would be a special meeting of the board. It was agreed to keep it an informal meeting.

The board decided not to run the advertisement on its meetings in *The Paducah Sun* for the August meeting.

Consultant

Bill Tanner handed out copies of responses to the Request for Proposal (RFP) for a technical consultant to the board and said he needed comments by July 26, 1999. Conference call will be set up at a later date with candidates.

Membership

Membership issues were discussed by Nola Courtney. She noted that Vicki Jones, David Fuller, Nola Courtney, and Greg Waldrop had served on the board for two years and that they would need to decide whether or not they would continue to serve.

Transportation Working Group

Nola Courtney reported on the SSAB Transportation Working Group conference call. She said they mainly discussed the roles and functions of the group and the fact that there must be some common concerns regarding transportation issues. Courtney and Doug Raper will be representing the board on this group.

Co-Chair Discussion

After discussion about nominations, Bill Tanner suggested trying to have 75 percent of the board present at the next meeting in order to decide whether to change the bylaws to have a chairperson rather than co-chairs.

Workplan

The workplan is going to be addressed by Nola Courtney and Mark Donham at the August meeting.

Tours

It was suggested and approved that the September 16, 1999, board meeting will include a tour of the Surface Water Operable Unit (SWOU) locations. The tour will begin at 4:00 p.m. at the DOE Site Office at the PGDP, and the formal meeting will follow the tour, starting at 6:00 p.m. at the DOE Site Office.

Financial Update

Financial report was given by John Sheppard.

Site Specific Advisory Board Letterhead

The present letterhead was approved.

Status of Name Change Proposal

John Sheppard reported that it was not possible to change the name officially, but the board could use the name: Paducah DOE Environmental Management SSAB, also known as the Citizen's Advisory Board if they desired. It was decided to adopt this name.

Webpage

Craig Rhodes addressed a need for webpage to be updated. He is going to e-mail information to Shirley Speer for changes and updates.

Member Orientation Kit

Member kit was approved and will be provided to all board members.

Jim Smart asked about the board's plan to write a letter to send to Congressional representatives, supporting funding for cleanup and other DOE projects at the PGDP. Merryman Kemp said it needed to be done as soon as possible. The proposal was made and approved to empower the Community Outreach subcommittee to write letter, e-mail to co-chairs, sign and send.

Merryman Kemp made an additional proposal: that individual board members also write letters. Samples of such letter will be provided at the August SSAB meeting.

Adjournment

The next meeting will be held August 19, 1999, at the Information Age Park Resource Center at 5:30 p.m. The meeting will be in the Training Room (left side of Great Room) again for August meeting.

The meeting was adjourned.

NEWS MEDIA CONTACT:
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FOR IMMEDIATE RELEASE
August 8, 1999

STATEMENT BY U.S. SECRETARY OF ENERGY BILL RICHARDSON ON THE PADUCAH GASEOUS DIFFUSION PLANT

"We are very concerned about recent allegations that past activities at the Paducah Gaseous Diffusion Plant have endangered the health of employees. We owe a great debt to the workforce at Paducah, and we are fully investigating these issues.

In June, we dispatched a team of expert health physicists to assess the situation. They did not uncover any imminent threats to the public health, worker safety or the environment, but we are continuing to investigate these concerns. Further, the Department of Energy is in close contact with the Nuclear Regulatory Commission and other agencies to address these issues and assure the protection of workers and the public.

We are taking the following steps.

First, I've ordered a full investigation to examine these issues. I am determined to uncover more about what actually occurred, who was responsible and what must be done to assure that it never happens again.

Second, we are asking the Institute of Medicine of the National Academy of Sciences to independently investigate the relationship between hazardous exposures and illnesses in our workers at Paducah and other Energy Department sites.

Third, I announced last month an initiative to provide compensation to current and former workers who are ill because of exposure to beryllium at Energy Department nuclear sites. I'm asking the White House to expand the legislation, soon to be sent to Congress, to include workers who have been exposed to radioactive materials.

- more -

L-99-048

Fourth, we are initiating a comprehensive study of worker medical history since the 1950s and we

are instituting an immediate medical surveillance program for current workers. This is in addition to the medical monitoring that we are already doing for former workers, to determine whether they have been made sick from exposure to radioactive materials in the course of their work at the Paducah plant.

Fifth, I have asked Dr. David Michaels, the Department's Assistant Secretary for Environment, Safety and Health to go to Paducah this week. He will meet with workers and the public to assess and report back to me.

Sixth, I have ordered the Department's Office of General Counsel to assess the contractual and legal responsibilities of our contractors. I will ask the contractors to provide me with all of their health and environmental records. I will hold all of our contractors, past and present, responsible for their actions.

Lastly, I have ordered the Department's experts to reassess our Fiscal Year 2000 budget request to assure me that it addresses all of the important health and safety issues at our gaseous diffusion plant sites. If it does not, we will recommend enhancements to the Congress.

Those actions are warranted given the concerns raised. I will not rest until these issues are fully dealt with and any injured workers are fairly compensated."

- DOE -

L-99-048

JUL 22 1999

MEMORANDUM
July 18, 1999

Stewardship SWG Working Group

To: DOE Site Specific Advisory Boards

From: Oak Ridge SSAB Stewardship Special Project Team

Re: National SSAB Meeting on Stewardship

Enclosed are several copies of a brochure regarding the National SSAB Meeting on Stewardship, to be held October 25-28 in Oak Ridge, TN. The meeting is being hosted by the Oak Ridge SSAB and co-sponsored by the Oak Ridge Reservation Stewardship Working Group.

The general structure of the meeting is as follows:

Oct. 25	Site tour; registration, reception
Oct. 26	Late registration; plenary session; breakouts; site caucuses
Oct. 27	Plenary session; breakouts; report out
Oct. 28	(Not strictly part of meeting) Meeting with Jim Werner (DOE-HQ) to comment on PEIS settlement.

We hope you see fit to send representatives from your board to this important meeting. Agendas, preliminary working documents, newsletters, information on transportation and accommodations, and other material will be sent to you in the near future. In the meantime, if you have questions, contact Dennis Hill, 423-241-4690; e-mail hillda@bechteljacobs.org.

JUL 23 1999

ROCKY FLATS CITIZENS ADVISORY BOARD

An Advisory Board to the U.S. Department of Energy

Rocky Flats Citizens Advisory Board

Comments on the *Draft Environmental Assessment for the Temporary Storage of Transuranic and Transuranic Mixed Waste*

Approved July 19, 1999

The Rocky Flats Citizens Advisory Board (RFCAB) understands that the Rocky Flats Environmental Technology Site (RFETS) has a need to develop some additional storage capacity for transuranic and transuranic mixed (TRU/TRM) waste. RFETS predicts it will fill all existing TRU/TRM storage capacity by June 2000 regardless of the number of shipments of TRU waste it is able to make to WIPP during the next year. Therefore, the Board recognizes the necessity for the development of additional storage capacity onsite.

After reviewing the Environmental Assessment and associated financial information, the Board supports the Preferred Alternative of refurbishing existing building(s). However, RFCAB does not recommend waste storage in buildings if this would cause increased radiation exposure to non-radiation workers. Prior to making a decision on utilizing Building 460, the Department of Energy should consult with the American Federation of Government Employees as well as other stakeholders.

We also agree with the RFETS assessment that tents should not be used because of safety and security issues. We further concur that the order of magnitude cost increase that would be involved in building a new facility cannot be justified in light of DOE's policy decision to ship all of this waste to WIPP as soon as possible

Finally, the Board would like to emphasize that security is still an important factor when considering storage for TRU waste, especially for some of the higher plutonium content residue materials. We encourage DOE to factor this into planning the building refurbishment criteria, particularly in light of the fact that the candidate buildings are outside of the Protected Area.

9035 Wadsworth Parkway Suite 2250 • Westminster, Colorado 80021 • 303-420-7855 • Fax 303-420-7579

Wattier, Debbie S. (DSI)

From: Michael Purkey [Michael.Purkey@EM.DOE.GOV]
Sent: Tuesday, August 03, 1999 1:15 PM
To: Betsy Mullins; Betty Nolan; Craig Deremer; Catherine Volk; David Ferreira; Douglas Frost; Fred Butterfield; Jeanette Chatman; Margaret Fernandez; Martha Crosland; Melinda Downing; Michelle Hudson-Mann; Naomi Wiegler; Doug Sarno; James_L_II_Daily@RL.gov; Abbey Wells (E-mail); Ann DuBois (E-mail); Becky Lopez (E-mail); Carolyn Gardner (E-mail); Dawn Haygood (E-mail); Debbie Wattier (E-mail); Donna Sterba (E-mail); Gwen Doddy (E-mail); Ken Korkia (E-mail); Michelle Smith (E-mail); Sheree Black (E-mail); Wendy Green Lowe (E-mail); Charles M. Rice (E-mail); Dale Slade (E-mail); George Chandler (E-mail); H. Ray Johnson (E-mail); James Bierer (E-mail); Jim Kinsinger (E-mail); Mark Donham (E-mail); Robert W. Peelle (E-mail); Ron Zerm (E-mail); Thomas W. Marshall (E-mail); Thomas Wagner (E-mail); Vicki Jones (E-mail); Anna Martinez (E-mail); Audrey Berry (E-mail); Gail McClure (E-mail); Gary Stegner (E-mail); Gerri Flemming (E-mail); Jerry Johnson (E-mail); John Sheppard (E-mail); Kevin Rohrer (E-mail); M. J. Byrne (E-mail); Marianne Heiskell (E-mail); Patty Natoni (E-mail); Tami Toops (E-mail); Woody Russell (E-mail); Beth Oms (E-mail); Carl Gertz (E-mail); Gerald Bowman (E-mail); Jeremy Karpatkin (E-mail); Jimmie Hodges (E-mail); Joel Berwick (E-mail); Ken Morgan (E-mail); Mike Zamorski (E-mail); Paul Kruger (E-mail); Rod Nelson (E-mail); Thomas Heenan (E-mail)
Subject: draft agenda for chairs meeting in Richland

SAB_ChairsMtg9-99 Rv2.wpd

Everybody.

Enclosed is a copy of a new draft agenda for the chairs meeting. The changes are in redline, and the format is WP 6.1. Those items in redline correspond to the items on the conference call agenda.

If you have trouble reading this file, get in touch with me.

Thanx,

Michael Purkey
EM-22
202.586.0040

EM SITE-SPECIFIC ADVISORY BOARD (SSAB)

DRAFT CHAIRS MEETING AGENDA

SEPTEMBER 21–23, 1999 ❖ RICHLAND, WA

Location: Double Tree Hanford House Hotel
802 George Washington Way
Richland, WA
Telephone: 509/946-7611

Tuesday, September 21, 1999: HANFORD SITE TOUR

8:00 a.m.:	Bus Departs Hotel for Hanford Site Tour (Lunch Provided @ $ TBD)
4:00 p.m.:	Depart from Hanford Site Tour to Dinner & Entertainment, Yakama Indian Culture Center, Toppenish, WA (Note: Individuals must pre-register if they plan to attend; Cost: $ TBD)
9:00 p.m. (approx.)	Return to Hotel

Wednesday, September 22, 1999: EM SSAB CHAIRS MEETING (DAY 1)

8:00 – 8:30 a.m.:	Registration
8:30 – 8:45 a.m.:	Welcome by Mr. Keith Klein, Manager, DOE Richland Operations Office; and Mr. Dick French, Manager, Office of River Protection
8:45 – 8.50 a.m.:	Introductory Remarks (Martha Crosland, Acting Director, EM Office of Intergovernmental and Public Accountability)
8:50 – 9:00 a.m.:	SSAB Chairs Meeting "Rules of Engagement" (Facilitator)
9:00 – 10:30 a.m.:	"Round-Robin" Issues & Information Exchange Among EM SSAB Site Boards, focusing on issues relating to the upcoming

SSAB "Stewardship Seminar" (SSAB Site Board Chairs)

Wednesday, September 22, 1999: EM SSAB CHAIRS MEETING (DAY 1) [Continued]

10:30 – 10:45 a.m.:	Break
10:45 a.m. – 11:30 a.m.:	SSAB Site Board Chairs "Round-Robin" Issues & Information Exchange (Continued)
11:30 a.m. – 1:00 p.m.:	Working Lunch at Hanford House: Introduction and discussion of Technology Management System and Site Technology Coordination Group (TBD)
1:00 – 2:00 p.m.:	Planning Session for EM SSAB "Stewardship Seminar" scheduled for October 26–28, 1999, Oak Ridge, TN (Bill Pardue & Lorene Sigal, Oak Ridge Reservation EM SSAB)
2:00 – 2:15 p.m.:	Break
2:15 – 4:15 p.m.:	Discussion Session on the Draft Revised EM SSAB Guidance and Related Board Issues (Fred Butterfield & Martha Crosland, DOE/HQ)
4:15 – 4:30 p.m.:	Break
4:30 – 4:45 p.m.:	Public Comment Period
4:45 – 5:00 p.m.	Day 1 Wrap-Up, Day 2 Look-Ahead (Facilitator)
5:00 p.m.:	Opportunities for informal gatherings of SSAB Chairs, SSAB Administrators/Facilitators, and DOE SSAB Federal Coordinators
6:00 p.m.:	Dinner (on your own)

Thursday, September 23, 1999: EM SSAB CHAIRS MEETING (DAY 2)

8:00 – 8:15 a.m.:	Review of Day 1 Issues (Facilitator)
8:15 – 9:15 a.m.:	DOE/EM Informational and Status Updates · Waste Management PEIS and Disposal Records of Decision (RODs)

- PEIS Lawsuit Settlement

Thursday, September 23, 1999: EM SSAB CHAIRS MEETING (DAY 2) [Continued]

- Waste Isolation Pilot Plant (WIPP)
- Plutonium disposition and follow-on process for In-Tank Precipitation (ITP) at Savannah River Site
- NEPA (EIS/EA) Status Updates
- EM Integration Process
- Transportation Protocols Standardization Initiative
- DOE Field & HQ Personnel Changes

9:15 – 10:15 a.m.:	Discussion of SSAB Transportation Seminar and possible Formation of SSAB Transportation Working Group.
10:15 – 10:30 a.m.:	Break.
10:30 – 10:45 a.m.:	Public Comment Period
10:45 – 11:00 a.m.:	SSAB Chairs Meeting Next Steps and Wrap-Up
11:00 a.m.:	Closing Remarks/Adjourn (Martha)
1:00 – 5:00 p.m.:	**Optional**: Boat Trip up the Hanford Reach (Must pre-register if you plan to attend; Cost: $ TBD)

DOE/EM-20 Points of Contact:

Fred Butterfield, EM-20
Phone: 202/586-5542
Fax: 202/586-9172
E-mail: fred.butterfield@hq.doe.gov
Pager: 800/650-7630

Michael Purkey, EM-22
Phone: 202/586-0040
Fax: 202/586-0293
E-mail: michael.purkey@em.doe.gov

Naomi Wiegler, EM-22
Phone: 202/586-7926
Fax: 202/586-0293

E-mail: naomi.wiegler@em.doe.gov

Paducah Site Specific Advisory Board
Public Outreach
Subcommittee Meeting
August 3, 1999

I. Potential Interview with Jim Malone from Louisville Courier Journal

II. Public Outreach Program Development— Potential Recommendations from Ideas Shared by Oak Ridge SSAB

a. Citizens' Surveys – to gather opinions regarding environmental issues.

b. Add congressional and state reps and business and community leaders to mailing list.

c. Create a student membership.

d. Develop a logo and theme.

e. Publish an informational booklet.

f. Develop standard publications to identify the board, clarify our purpose, and educate others on the EM Program at PGDP. Used for public workshops, presentations, and enclosures.

1. Bulletins – See the "Advocate"
2. Brochures and/or flyers– See OREMSSAB's tri-fold

OREMSSAB also uses an "Information Resource Guide" to inform the public about the availability of resources relative to the Environmental Management Program at Oak Ridge.

g. Develop a slide presentation and/or video explaining our role and purpose to be used in presentations to various individuals, groups, and organizations in the area. Groups might include: Lion's Club, Rotary Club, Congressional and State Reps, Chamber of Commerce, PACRO, Educational Boards, etc.

h. Issue press releases regarding important issues.

NATIONAL SSAB MEETING ON STEWARDSHIP NEWSLETTER (#1)

Plans are coming together for the National SSAB Meeting on Stewardship, October 25-27 in Oak Ridge, Tennessee. The meeting is being hosted by the Oak Ridge SSAB and co-sponsored by the Oak Ridge Reservation Stewardship Working Group.

In the interim between now and the meeting, we hope SSAB members will begin to think about long-term stewardship at their respective sites as well as nationwide, and begin making preparations to address some of the key issues and challenges that lay before us both in the near term and for decades, even centuries to come.

Four fundamental questions regarding stewardship have surfaced from two documents published by the Oak Ridge Reservation End Use Working Group (*Final Report of the Oak Ridge Reservation End Use Working Group* and *The Oak Ridge Reservation Stakeholder Report on Stewardship).* These are:

- What Needs to Be Done?
- Who Does What?
- How Will Information Be Tracked?
- How Will It Be Paid For?

We hope that during two days of general discussions and intensive break-out sessions, we can begin to formulate ideas, approaches and policy statements that will at least set us on a track toward resolution of some of these complex, long-term challenges. Field and headquarters representatives from DOE, EPA, state regulatory agencies and elected officials will present their perspectives, but the major product of this meeting will come from groups of interested and involved SSAB members hammering out some key statements that can be used to formulate a logical and effective framework with which to approach long-term stewardship on the local, state and national levels.

Almost everyone agrees that stewardship is a concept whose time has come, but addressing the issues will take considerable effort and time. It is a pressing problem. Planning for stewardship must accompany planning for remediation of contaminated sites. The work will stretch, like stewardship itself, well into the new millennium.

The general structure of meeting activities is as follows:

Monday, October 25 -- Afternoon site tour, registration, reception
Tuesday, Oct. 26 -- Registration, plenary session, break-outs
Wednesday, Oct. 27 -- Plenary session, break-outs, report out.

In addition, on Thursday morning, **October 28**, Jim Werner (DOE-HQ) will conduct a meeting to solicit comments from stakeholders on the PEIS settlement.

A more detailed meeting agenda and other information to assist you in preparing for the meeting will be sent to you in the near future.

Blocks of rooms have been set aside at the:

Comfort Inn, Oak Ridge – (423) 481-8200
Garden Plaza – (423) 481-2468

In order to get the conference rate at either hotel, you must identify yourself as a participant in the National SSAB Stewardship Meeting. You will be provided periodic updates regarding the progress of the arrangements. If you have questions in the meantime, call 423-241-4690 or e-mail hillda@bechteljacobs.org.

ROCKY FLATS CITIZENS ADVISORY BOARD

An Advisory Board to the U.S. Department of Energy

Rocky Flats Citizens Advisory Board

Comments on the *Draft Environmental Assessment for the Temporary Storage of Transuranic and Transuranic Mixed Waste*

Approved July 19, 1999

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After reviewing the Environmental Assessment and associated financial information, the Board supports the Preferred Alternative of refurbishing existing building(s). However, RFCAB does not recommend waste storage in buildings if this would cause increased radiation exposure to non-radiation workers. Prior to making a decision on utilizing Building 460, the Department of Energy should consult with the American Federation of Government Employees as well as other stakeholders.

We also agree with the RFETS assessment that tents should not be used because of safety and security issues. We further concur that the order of magnitude cost increase that would be involved in building a new facility cannot be justified in light of DOE's policy decision to ship all of this waste to WIPP as soon as possible

Finally, the Board would like to emphasize that security is still an important factor when considering storage for TRU waste, especially for some of the higher plutonium content residue materials. We encourage DOE to factor this into planning the building refurbishment criteria, particularly in light of the fact that the candidate buildings are outside of the Protected Area.

9035 Wadsworth Parkway • Suite 2250 • Westminster, Colorado 80021 • 303-420-7855 • Fax 303-420-7579

ROCKY FLATS CITIZENS ADVISORY BOARD CONSENSUS RECOMMENDATION

DATE: July 19, 1999

NUMBER: 99 - 1

RESPONSE REQUESTED BY (date): August 19, 1999

REGARDING: Comments on the *Draft Environmental Assessment for the Temporary Storage of Transuranic and Transuranic Mixed Waste*

TO: Jessie Roberson, DOE-RFFO

CC: David Maxwell, DOE-RFFO

Recommendation, or message:

SEE TEXT OF RECOMMENDATION ATTACHED

JUL 19 1999

Health · Environment · Safety

Pantex Plant Citizens' Advisory Board

Meeting Agenda
Fifty-seventh Meeting

Tuesday, July 27, 1999
1:00 p.m. – 5:00 p.m.
Carson County Square House Museum
Panhandle, Texas

8 – 12	Water 101 Seminar
1:00	Welcome-Agenda Review-Approval of Minutes
1:15	Co-Chair Comments
1:30	Task Force/Subcommittee Minutes Program & Training Environmental Restoration Nominations Policy & Personnel
2:15	Ex-Officio Reports
2:45	Break
3:00	Updates - Occurrence Reports - DOE
3:30	Environmental Restoration Program Update
4:30	Closing Remarks
4:45	Public Comments
5:00	Adjourn
5-7	Environmental Restoration Program Poster Session

Questions will be invited during Presentations
Public Comment will be invited at the end of the meeting.

WATER 101 SEMINAR

DRAFT

Tuesday, July 27, 1999

8 a.m. – 12 noon

Carson County Square House Museum

Technical Resources – TNRCC, BEG, BRC, AG

Issues – Overview of Perched and Ogallala Aquifers and Known Sources of Contamination

I. Lead levels in Offsite Production Wells

   A. Sampling Techniques

   B. Pantex Lead Levels

   C. Safe Drinking Water Standards

II. Locating the Perched Aquifer Offsite

   A. DOE Test Results vs. Mr. Cockrell's Test Results

   B. Contractual Restraints

III. $50,000 Stainless Steel Wells

   A. The Cost of Punching through the Perched Aquifer into the Ogallala Aquifer

   B. Can You Spell PRP

IV. Other Issues

   A. Tritium in the Water

   B. The State's Role in Protecting Human Health and Safety and the Environment

PANTEX PLANT CITZENS' ADVISORY BOARD
806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
FINAL
FIFTY-THIRD MEETING

Tuesday, March 23, 1999
1:00 p.m. – 5:03 p.m.
Carson County Square House Museum
Panhandle, Texas

INTRODUCTION

The fifty-third meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, March 23, 1999 at the Carson County Square House Museum, Panhandle, Texas. The meeting began at 1:00 p.m. and adjourned at 5:03 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Groundwater Program Presentation
- Update of Pantex Pit Packaging Program

PPCAB Members in Attendance: Pam Allison, Sidney Blankenship, Galen Boothe, Paula Breeding, Nathaniel Cantly, Rusty Donelson, Bob Juba, Janette Kelley, Denise Price, K. R. Ramakrishnan, Frank White.

PPCAB Members not in Attendance: John Blakley, Walt Kelley and Ron Zerm.

Ex-Officio Members in Attendance: Tom Walton for John Bernier, DOE; Liz Bills for Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control; Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: Rafael Casanova, EPA.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitators: Dr. James Hallmark, WTAMU and Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, R. M. Brady, Tom Castleman, Lewis Daniels, Boyd Deaver, Elisha L. Demerson, Timothy Dwyer, Richard Edmondson, Jeff Flowers, Joe Gantos, Johnnie Guelker, Dennis Kelly, Richard Moos, Jeri Osborne, Laura Pendlebury, Bernard Plean, Richard Lee and Scott Wood.

WELCOME

Hallmark welcomed everyone to the meeting and reviewed the agenda. Review of minutes was delayed until a quorum was reached. Once a quorum was reached Hallmark proposed that instead of making corrections to the minutes, all members contact the office with their corrections or clarifications. This would give everyone a month to review the minutes. The new process will be to read the minutes, contact the office with corrections and a revised set will go out in the next packet. Notice of the deadline will be given prior to packets going out.

CO-CHAIR COMMENTS

Blankenship reminded everyone about the transportation seminar to be held on May 20-23, 1999. A fact sheet will be presented at the next meeting for the Board's review.

The next item was a press release Blankenship wrote which he presented to the Board for their review. J. Kelley asked Blankenship to provide a synopsis. Blankenship noted it was a review of the Board's activities in 1998. He asked that everyone review it and if it was not objectionable he asked for the Board to approve its release. He would bring it up at the end of the meeting so members would have time to review it. Juba asked if the Board summary had been done in the past. He expressed that it will not be published due to it not being current and its length. Blankenship stated it would be the decision of the media whether they print it or not, but the Board could say they released it. He noted that Cockrell had suggested issuing a release after each meeting. Johnson noted that in the past Lopez had issued an annual report to headquarters. J. Kelley added that Community Outreach is also reviewing the issuance of press releases. Juba stated that if the Board is going to try to issue press releases they should perhaps have the assistance of a public relations person. Campbell suggested including the release on the PPCAB web page. Blankenship noted the web page is rather intimidating and perhaps Community Outreach should discuss it. He added he did not issue it for a specific outlet, but in a format that will allow the public to review it.

Blankenship reminded everyone that at the retreat they received a tour sheet from the site. He asked if the Board would like to pick a date for a tour. He feels this would be a good way to introduce new members and increase everyone's knowledge about issues that come before the Board. He asks that everyone contact the office for possible tour dates.

GROUNDWATER PRESENTATION

Joe Gantos made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion Following Presentation

Juba asked what a hydro punch is. Gantos stated it punches a hole in the ground then by using a sample sleeve takes a sample without the expense of putting in a well. Martillotti asked if the injection wells were in Zone 12. Gantos stated they are adjacent to Zone 12. Blankenship asked if the contamination is suspended in the perched aquifer. Gantos noted all the contamination is soluble and spreads throughout the saturated thickness. Blankenship noted that someone from TNRCC stated in 1995 that they could drain the entire perched aquifer in 6 months. He asked if this was an accurate statement. Gantos stated that if they can control the percolation, then it is possible to drain but not sure about the 6 month time factors. Anytime there is rain it goes down to the perched. Blankenship asked where the best location is to extract dirty water and clean it. Gantos replied that 20% of the perched is contaminated, and as long as it can be controlled you can extract from the plumes.

Juba asked if there is a cut-off level or if it is a continuous effort. Gantos stated it is in the compliance plan. Hastings added that cleanup levels are the same as safe drinking water levels. Until those levels are reached they will continue to pump and treat. Juba then asked if the perched were cleaned up would there still be a concern. Hastings noted there would always be a concern. Allison asked if the cleanup takes 10 years and the standards change, does the compliance levels change. Hastings stated compliance levels could be modified.

Blankenship stated the Geosiphon system used at Savannah River was in a shallow formation. Gantos stated that when the studies were done they looked at all the available technologies. It is based on systematic methods and broken down to four or five potential processes. The five factors they look at are cost, implementability, short-term effectiveness, and reduction of toxicity or volume of wastes and long term reliability and effectiveness. It was decided to use groundwater extraction with liquid-phase carbon absorption and chemical precipitation.

Allison asked if they had calculated the amount of water in the perched aquifer. Gantos stated 1.5 billion gallons are contaminated. 50 million gallons have been cleaned up on the site. Allison asked if other models had been tried. Gantos noted the same model could be calibrated. EPA said it was the best model they had seen. Allison asked the name of the model. Gantos stated it was MODFLOW. Boothe noted the Savannah River process used ground up iron as a catalyst and was a shallow process. He then asked when contaminates in the perched aquifer originated. Gantos stated the contaminants (HE, Cr, etc.) were probably originally released to the environment during the World War II effort.

Osborne asked how the water had been filtered before. Johnson stated the permanent outfalls went to open discharge and are routed through the wastewater treatment plant. Osborne asked if they were still going to unlined ditches. Johnson noted they were not, but it is still going through a treatment process then sent to the wastewater treatment facility. Monthly reports are submitted to TNRCC. Blankenship asked if there is any way for the source to be contained or a different way to treat it. Gantos noted that landfill 3 will be capped and will eliminate further percolation. Over the past 3-4 years they have excavated other sources and then shipped contaminated soils off site. They have eliminated over 90% of the sources that exist on-site.

Allison asked what year contamination was first detected in the perched aquifer and who detected it. Guelker stated the first detection was in 1989 and Los Alamos did the initial drilling. Allison noted that if contamination was on the ground in the 1940's and was not detected for 50 years, would it be another 50 for it to percolate further down. Gantos stated that 50 years is about right. Allison asked if they would have to wait 50 years to flush it. Gantos noted it depends upon the original concentration. Belisle asked if there has actually been an analysis of the soil column to see where contaminates may be bunched. Gantos stated they track levels down to acceptable levels. Belisle asked if there is a difference in transport time between ground and source. Gantos noted there was and would provide the information to her. Allison asked if a work plan was available. Gantos stated they are still working on that.

Cockrell noted he had received information from DOE about the Corp of Engineers. Brady stated that fine grain has been found 20-30 ft. deep. In 1992 they encountered over 80 ft. of fine grain. Cockrell noted that on his land the most he has is 5-6 ft. of fine grain. When he dug his private well it was only 2-½ ft. He asked what would happen if there is no fine grain zone. Brady replied that the perched water would go straight down. Blankenship asked if Cockrell had received his test results. Cockrell noted he had never disclosed them to the media. He did give Moniak permission to get his results, but he has had five calls wanting to know his water test results. He noted that homestead wells are drilled exactly same way as in the past. His well was 350 feet. From April 12 to July 28 1996, there were 12 tests conducted and minute contaminates were found in each testing. He is confident this is the first time in 3 years he has not broken out, but he is drinking bottle water. Cockrell passed out copies of groundwater protection project. The neighbors on either side of him do not want to drill wells unless they are paid for their water. His neighbor informed him he is withdrawing from any negotiations with anyone from the government. He feels monitoring wells are a waste of money and time. Cockrell will grant extraction wells for fair market value. J. Kelley noted that at one time Cockrell showed them pictures of his hives, she asked if they have concluded what caused them. Cockrell noted it is in the list of contaminates.

J. Kelley asked why the contract was rejected. Cockrell stated the lawyers in Albuquerque said it was too expensive. Allison asked when samples were taken from his wells for Pantex or TNRCC. Cockrell noted that two samples of CR4 were taken and the results are not back. They were taken February 22. Pantex wells 1030 and 1031 were testing 840 parts per billion. These are only 750 feet from Pantex. Juba

asked if there was anything this Board can do for this contract. Campbell stated there was never a signed contract, but there was an agreement that was rejected by Albuquerque. There is no appeal process because no contract was signed.

Allison noted that according to the diagram they have a cross section of the playa without well data across Zones 12 and 11. Gantos stated they have not done one that far south because there are no wells. Allison asked if there were any plans to evaluate the Ogallala. Gantos stated they have received data from TNRCC. It is not DOE's responsibility but the Corps. They have closed Playa 4 at Risk Reduction 2. The Corp did test around playa 5. If they do not see surface contamination they see no reason to investigate further. Hastings agreed with Gantos that TNRCC does the same, if they do not see contamination on the ground or within the first few feet then they see no point of digging further down. Gantos added that they concentrate their efforts on where they know there is a problem.

UPDATE OF PANTEX PIT PACKAGING PROGRAM

Steve Hallett made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion Following Presentation

Martillotti asked if the estimated 5.5 years included new pits going into storage. Hallett stated they would continue to operate a packaging line that can handle 20-50 pits per month. That will give them the opportunity to deal with pits coming in. Allison asked if the sealed insert would qualify as a transportation container and why the shipping containers are in short supply. Hallett noted they have always managed so that they are not limited to a number of shipping containers. One of things DOE is looking at is purchasing additional containers, and putting them inside a shipping container. They will continue to use current shipping containers for the next several years. Allison noted it was said the industrial application of seals would last for several years; will radiation affect the seal? Hallett stated this was one of the reasons Mason & Hanger chose this seal because the seals have been used in nuclear power plants for years. They are most versatile and long lasting. If they had gone with a rubber seal they may have had to deal with RAD. Donelson asked if the ALR-8 was designed as a shipping container. Hallett noted it was originally designed for shipping but lost certification in 1990. The ALR-8A was not designed for shipping. DOE did an analysis and came up with two decisions, to over pack and ship as contents, and pack into a second pack. One option is that this container may pass as a shipping container.

Donelson noted the Board had already made a recommendation, but he still has questions that he will send to Hallett. Blankenship stated the Board did make a recommendation last April, but questions should be asked at each stage of this process. He asked if the pits are leaking into the helium, would there be a problem for the packaging. Hallett stated if a pit were to leak, it would be no better or worse once the container is opened because they still have to deal with particulate. White asked if they

were going to reuse gaskets. Hallett stated they were. Containers are for one time use, but they will need to replace the gasket. Boothe noted that Pantex does certify the purity of the gas. If there were a leaking pit, it would be of a smaller volume and it would be an improved process. Hallett noted that one of the processes that will be implemented is just to open the value and swab it. All that has to be done is replace the valve, and this decreases the problems.

Allison asked if once the containers are used and opened if they are reusable. Hallett stated they are, they only replace the copper seals and bolts. Allison asked if the safety analysis reports are based on the AT-400 being the container housing the pits. She also asked if these reports and analysis have to be redone because of changes. Hallett noted that most of the reports state long-term storage. Dennis Kelley noted that all the reports are based on ALR-8 Sitewide EIS and the evaluated potential of going to AT-400A. There was a supplement analysis of the sealed analysis for on-site storage and it showed no impact by going to interim storage. Allison asked if this was available to the Board. D. Kelley noted the report is in the reading room and DOE's home page.

Juba asked if they were going to use an inferior container. D. Kelley noted that there are bases other than cost for representation of the sealed inserts being inferior. Allison asked if they were able to successfully qualify for shipping. If not, would there be an increase in worker exposure? Hallett noted that if the AT-400 were used there would be more exposure due to the time the operator is exposed to the pit. Juba noted that worker exposed at Pantex should be considered in the creation of a new container to minimize exposure to workers. Hallett stated that one of the things they look at is minimizing exposure to workers. Johnson stated that in the Sitewide EIS, the AT-400 was referenced as being looked at for use. He does not believe that transportation was used in any of the analysis of sealed inserts because it is a separate issue. Boothe added the SI with an over pack would be similar. Donelson noted that worker exposure is a great concern. He asked if there would be more worker exposure if transportation were needed. Hallett stated the AT-400A is using an automatic line instead of manual. Hallett noted they deal with onsite worker and storage issues. They did look at sealed inserts when they have to repack with regards to onsite exposure. The department's original vision was an automated line, but that is in the future. They will still have higher exposure at the beginning.

Ex-OFFICIOS REPORTS

Governor's Office

Mulder stated the WIPP site is scheduled to open and take shipments. The State of Texas has an emergency program along the Texas route. They were notified two weeks ago that WIPP funding had been cut. He added that someone from the state would be attending the transportation seminar.

Allison asked what the WIPP was to be used for. Mulder stated the money was for emergency training. Allison asked if this is something that the Board may have a

recommendation about. Kunz suggested passing it to Program and Training. Juba stated he did not think the issue was within the Board's jurisdiction. Mulder noted this is the second time in 10 years Texas has lost funding. Texas signed off on letting I-20 be a shipping route, 680 miles through 22 counties. If they cut funding for this program, Texas is no longer committed to I-20 as a shipping route; therefore I-40 could become the route. Allison feels the Board should do something for their neighbors. Juba noted he did not have problem with it. Hallmark felt Health & Safety would be good to review this information. Blankenship agreed this would be appropriate.

TNRCC

Hess stated TNRCC had sampled the public water systems at Pantex on March 8. They also completed sampling production wells on March 9. They have not received the results yet. TNRCC completed sampling Cockrell's wells on the 10th of March and have not received those analysis results yet either. He has contacted the lab and it will be about ten more days before they receive that information. Kevin Rutledge and Kevin Starbuck from W. Kelley's office conducted the City of Amarillo Emergency Planning Exercises in response to a mock Pantex incident, the TNRCC Pantex team observed the exercises they seemed to go smoothly and appeared to be a success.

DOE

Johnson noted that for the third year in a row Pantex has received awards for waste prevention and for pollution prevention in community outreach. 25% of the awards given out were presented to Pantex.

Blankenship noted that in the 1997 and 1998 Albuquerque Office annual reports the regulators had approved only 21 sites. He questioned the disparity of voluntary preventative action. Johnson noted they are moving based on criteria and making certain interpretations. They have exchanged letters with TNRCC and done further investigation. There is a significant difference in the number they say are completed and TNRCC has signed off on. Hastings agreed there is a disparity on the numbers completed and what TNRCC has approved. This is because they are basically self-implementing. They can complete and implement those with our approval. Some are just awaiting review and approval from TNRCC. It is a corrective measure study. Allison asked if Hastings could provide a list of documents that they have yet to review. Hastings stated he would check but believes he can provide the information.

OCCURRENCE REPORTS

Scott Dolezal stated that of the eleven new notifications six of those have no adequate management system. Breeding asked about occurrence #11. Dolezal noted the source was a small flat disk that was sealed with cardboard. This source had come apart before and was in a zip lock bag. Breeding asked what the radiation type was for Beryllium 133. Dolezal noted he was not positive but would check. (Dolezal informed the office it was a gamma emitter.) J. Kelley stated there were three near miss events,

she asked if there were occurrence reports that deal with that. Dolezal stated the three events were a cell fire, water tower maintenance, and trailer ramps. Reportables were entered for all three events. J. Kelley noted there was an alcohol abuse incident again, she asked what the punishment was. Dolezal stated employees typically have a second or third "strike". On the third offense they are fired although Dolezal is not sure of the procedure. J. Kelley asked if the same rule applies to those with drug use. Dolezal stated it did. Allison asked what the contamination was on #14. Dolezal noted this report had been cancelled, he does not know the exact levels, but he stated it would not impact future plans. The contamination was tritium. Allison asked if these were Pantex workers, or subcontractors. Dolezal stated they were subcontractors. Allison asked if they were wearing dosimeters. Dolezal noted they were.

SUBCOMMITTEE/TASK FORCE REPORTS

Nominations

J. Kelley brought forth Billie Poteet's name for a second reading. Consensus was achieved. Poteet was invited to sit at the table.

Training & Program

Training and Program will meet April 1, at 2:00 p.m. at the office.

Policy & Personnel

Blankenship noted they are reviewing the bylaws dealing with membership issues. The committee does not have any proposals today, but they may have some at the next meeting. J. Kelley asked if the letter from Crosland gave guidelines regarding membership appointments. Johnson stated it does. DOE can assign up to five members to a Board. This is supposed to speed up the process of getting new members. J. Kelley asked how it is determined how many years members can participate when filling an unexpired term. Johnson noted this is mid-way through the first paragraph of the bylaws. He still thinks it is important for the Board to deal with membership, make-up and try to avoid what occurred last fall. J. Kelley asked if someone comes in halfway through a term how long he or she would be eligible for. Blankenship noted that was yet to be determined and it was also suggested that caucuses each pick their own members. Kunz stated that according to the letter if a member resigns, then it could be filled. Hallmark noted a meeting is scheduled for Thursday 2 p.m. Mulder thought this was done according to the state of Texas system where everyone served 2, 4 or 6 year terms. He thought that was what they were doing when it was set up. Blankenship noted this would be the case if they did not have resignations. Mulder noted that regardless of resignations, dates of terms should remain constant.

Community Outreach

Kelley went over the purpose of the committee according to the bylaws. The committee is making plans for the Tri-State fair. The committee suggested having a membership list as an insert in the brochure, so when membership changes the insert is the only thing changed. They would also like to include biographical information on the web page. Business cards for all members were also suggested.

A speaker's bureau was also discussed; members would discuss the Board as a neutral speaker. The committee will be participating at the Business connection by paying for the booth. The Board is getting complimentary tickets. If anyone is interested in attending, contact the office.

Donelson asked when the Board joined the Chamber of Commerce and when it was decided. Kelley noted it was last September. She added the purpose of the committee was to put forth the agenda of the Board. Allison noted there was not an actual decision by the Board to become a member. Johnson noted he would get an opinion from counsel regarding Board participation in the chamber.

Health & Safety

Blankenship noted the task force is setting up parameters. They will address worker health hazards, transportation workshop and health and safety aspects.

Juba noted he would hate to base anything on the USA Today article. Blankenship noted that aside from privacy issues, he would like people on the task force to decide what is true and what is bogus. If it can provide more evidence than emotion, then he would like to investigate it further. Hess noted that some additional information or research should be done on basic water quality. Not based on contaminates, but quality.

Environmental Restoration

Environmental Restoration will meet within the next few weeks.

Closing Remarks

Allison stated the AT-400A was an admirable project. DOE has tried to find a safe way to store pits in an inherently bad situation. She is not in disfavor of it. Juba agreed. They need to get them in a better package, if they can do it cheaper or faster he is in favor of it.

Kunz invited the public to make comments.

Kunz adjourned the meeting at 5:03 p.m.

PANTEX PLANT CITZENS' ADVISORY BOARD
806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
FINAL
FIFTY-FOURTH MEETING

Tuesday, April 27, 1999
2:30 p.m. – 4:50 p.m.
Amarillo College, Exhibits Hall
Amarillo, Texas

INTRODUCTION

The fifty-fourth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, April 27, 1999 at the Amarillo College Exhibit Hall, Amarillo, Texas. The meeting began at 2:30 p.m. and adjourned at 4:50 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports

PPCAB Members in Attendance: John Blakley, Sidney Blankenship, Paula Breeding, Nathaniel Cantly, Rusty Donelson, Bob Juba, Janette Kelley, Walt Kelley, Denise Price, K. R. Ramakrishnan, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Pam Allison, Galen Boothe, and Billie Poteet.

Ex-Officio Members in Attendance: David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control; and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: John Bernier, DOE; Thomas Edwards, Attorney General's Office; and Rafael Casanova, EPA.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, Tony Biggs, Tom Castleman, Jay Childress, Janice Clark, Lee Cockrell, Cheryle Cooper, Timothy Dwyer, Richard Edmondson, Mike Gardener, Deborah Griswold, Tom Jones, Richard Lee, Joe Lockwood, Dick Moos, Vaughn Nelson, Jeri Osborne, and Harish Sharma.

WELCOME/MINUTES

Kunz welcomed everyone to the meeting and reviewed the agenda. Review of minutes was delayed until a quorum was reached. Kunz reminded everyone that changes to March minutes must be turned into the office by May 6. November minutes were approved by consensus with one change by Breeding. Juba suggested just taking action minutes. Breeding stated she would be against it if the Board does not have actual extensive minutes. Juba withdrew the recommendation. Blankenship was under the impression that FACA requires a deposit of the minutes in the reading room within 30 days. He would be satisfied with more concise minutes, but because the Board does not have that many recommendations this is the only way to document what is occurring. The February minutes were approved by consensus with no changes. Cockrell provided changes to the March minutes, which will be included in May's packets.

CO-CHAIR COMMENTS

Blankenship stated he had recently received a copy of the DOE Commercial Disposal Policy Analysis for Low-Level and Mixed Low-Level Wastes that relates to the Board's recommendation of not sending waste to unlicensed disposal sites. The Department has decided to retain its ability to dispose at DOE sites and the current policy for limited commercial disposal. If anyone would like to review the document, let him know.

Prior to the EM-SSAB Chairs meeting in February, Blankenship had previously contacted Fred Butterfield and Martha Crosland about the possibility of the PPCAB hosting the SSAB Chairs meeting here in Amarillo. He would like to extend an invitation for the year 2000 if the Board would be interested. J. Kelley noted that Crosland had never been to Pantex and would like to visit. Ramakrishnan asked if Blankenship wanted the Board to make a decision. Blankenship stated there was no immediate urgency if the Board wished time to consider it. J. Kelley noted that quite a bit of preparation would be involved. Kunz asked if members would like to send comments to the Co-Chairs. W. Kelley asked for a vote now since it would not cost anything or take any time. Kunz asked for a vote and consensus was given to extend an invitation for the SSAB Chairs meeting to be held in Amarillo in the fall of 2000.

EX-OFFICIOS REPORTS

EPA

Casanova was unable to attend but sent in a report, which Kunz read. Informational meetings will be held on May 20, 1999, at the Radisson (near the airport). There will be

two sessions, one from 11:30 a.m. – 1:00 p.m. and the other from 6:30 p.m. – 8:30 p.m. The purpose of the meeting is to inform the public (and answer questions) about EPA's deferral criteria, the NPL deletion process, TNRCC's RCRA permit/compliance plan, and DOE's petition to delete the site based on deferral.

Governor's Office

Mulder stated they did get WIPP funding for a 60-90 day extension. He added that Denise Brooks from his office would be attending the Transportation Seminar in Cincinnati.

TNRCC

Hastings stated that the TNRCC along with EPA would be sponsoring an informational open house concerning the DOE's petition to the EPA for deletion of the site from the National Priorities List (NPL). They will be present to provide information and to answer any questions about the process.

Hess stated TNRCC has started the second quarter ground water monitoring. Today was the first day of sampling due to the rain. Hess has received all the ground water monitoring results for the first quarter and is compiling the quarterly report. He has some adjustments to make, but he should have the results at the next PPCAB meeting.

Department of Health

Martillotti stated that emergency exercises occurred in the last two weeks in Texas. The exercise went fairly well and had good representation. There were some interface problems between State and DOE people, the information flow was reasonably good, and the DOE contamination control procedures meshed with the State's. He noted that this was the first time the exercise was held with the State Radiological office. Both teams learned good lessons with the help of the critics. DOE-Albuquerque plans to provide a video to the State, if they do he will try to provide a copy to the Board.

DOE

Johnson stated they have obtained landowner signatures for property access. This access procedure will include borings. He added that DOE conducted a presentation for the Environmental Restoration task force.

Campbell stated the access agreement contacts would not have been signed without Lee Cockrell's assistance. There will be eight test borings done on Richard Crawford's property, three test borings will be done on Cockrell's land and three on Buddy Vance's land. The reason for the borings is to see what is already there. They will be starting as soon as the ground dries. Blankenship asked if the contracts are annual. Campbell stated the contracts start now and run through August 26. Once monitoring is

completed it will go quarterly, and then it will depend on what is found. Subsequent agreements could go up to five years.

Cockrell stated he signed his contract December 7, 1998. It expires May 31, 1999. On December 9 he signed a second contract with revisions, this was a six-month contract. The contract negotiated with Buddy Vance was done over a four-month period with Bruce Campbell. That contract expires August 26, 1999, and Richard Crawford's contract expires in July. Robert Musick from TNRCC arrived on Thursday, after which one person withdrew from the contract. Cockrell noted that borings take over a third of the cropland. Landowners get $2,500 for oil wells, but he settled with Campbell on $900. All he has asked for is reimbursement for damages to the land. The contracts are to drill test wells in May, June, and July. Richard Lee and Campbell wanted to negotiate contracts on the monitoring wells. The public was invited for comments.

OCCURRENCE REPORTS

Dolezal stated that eight of the occurrences involved procedure not being followed. There were four unusuals out of the ten new occurrence reports. Ramakrishnan asked if the unusuals are more than average. Dolezal noted they were pretty high. Ramakrishnan asked if there was a reason for that. Dolezal stated it was probably more bad luck than anything was, but it does need to be looked into. J. Kelley asked who decides what is unusual. Dolezal noted that when an occurrence happens there is a critic of the event. Martillotti added it is the criteria of the DOE and facility representative.

Blankenship asked about the vacuum cleaner and the tritium (occurrence #20), he is concerned with the subcontractors, and if they are fully apprised of what is going on there. Dolezal stated that subcontractors need a radiation permit for that job. They have job specific training for the job. Zerm added he attended the critique on that. He stated it was a brand new vacuum cleaner that broke down, the subcontractor out of frustration threw it in the back of his truck in order to take it back to Sears to get a new one. Breeding asked if more or longer training would help. Dolezal noted it is probably not the big culprit. During the review of the integrated plant safety management, a task group is looking into procedure enhancement, but it may be awhile before they get feedback from them. There are so many procedures that not everyone knows all of them.

Juba asked about occurrence #26. He had talked with some people at the plant, and asked if Dolezal could elaborate on the incident. Dolezal stated the PTs tried to do a test at the wrong time. They got faulty readings because the test was not done at the right time. Tests cannot be done without the manager being there. Juba noted it sounded like this was one of those too many rules and safety procedures. He asked if there is a way to improve safety by clustering steps of work or doing something for the workers who are getting conflicting messages, perhaps another prescribed method where the rules do not conflict. Dolezal stated the procedures the PTs work from could not be any simpler. It is on the top of the list of priorities, the procedure was

inexcusable. J. Kelley suggested the possibility of a checklist they could check off. Dolezal noted that another piece of weaponry already has this and they have tried to take this into account. W. Kelley asked just how unsafe this procedure was, because it bothered enough people that there was a problem. Why were people so concerned? Dolezal stated there was not any great risk, but part of the way the program is structured is to avoid inadvertent acts. When the tester is hooked up it stops this.

Blankenship noted that two of the reports had to do with the movement of high explosives #0017. He asked what does this signify, what does the level 1.4S mean, and also was there a current tracking center for the movement of explosives. Dolezal stated that a 1.1 is mass detonating, 1.3 is mass fire, and does not detonate. 1.4 is self-contained, and S is the least hazardous. 1.4 is like a small firecracker, if detonated it would not be noticed from outside the pack. When they started becoming more concerned with the tracking movement they were not tracking 1.4, but they were finding that 1.4 explosives were ending up in buildings they were not suppose to be in. This event was unique. The person who initiated the paperwork was not on site, and the person who moved it was not aware of the regulations in process. A better segregation of boxes is now in place.

Martillotti stated that #001 was a near miss involving a radioactive source. It said it was sufficient, but the word "not" was missing which changes the meaning of the sentence.

Zerm said in relation to the W87 occurrence report that he investigated this occurrence in detail and there was absolutely no way any action could be initiated. The best allegory Zerm could put forth was to having one's car being monitored through a "sun machine". This machine monitors one's automobile's circuits to check on their integrity.

UPDATES

Johnson stated that during a background survey Zone 12 south and Zone 4 had not been flown. He sent a letter to the Board about having it re-flown. There was discussion of having an over flight done before the next cycle, but they decided to wait.

Johnson noted there was discussion of attending a Hanford board meeting and if members are still interested please contact the office. He visited with attorneys about the Chamber of Commerce membership and it was decided it was not appropriate for the PPCAB to be a member. J. Kelley noted that because of the feelings of some of the members the Board would not participate in their May program.

Johnson stated that Steve Goodrum was to attend this meeting, but was unable due to his knee. Campbell added that Hanford would be sponsoring the Co-Chair meeting in the fall. Blankenship stated that Al Young gave a presentation on risk profiles in February. He received a letter stating Johnson had Pantex's risk profile. Debra Griswold, the Environment Restoration Program team leader stated she had been working with Young, and the profile drafts are out. The report will include coordinating with stakeholders, and will be a representation of information. It will become a national

document, or work in progress. Comments will still be welcomed, this is not a decision-making document, and is on a very summary level.

Addendum to March 1998 minutes

Kunz noted the addendum was due to a few words being left off the line. Blankenship stated that when this statement was made for the recommendation it was sent in. The addendum does not represent what was in the minutes, which were subsequently approved by consensus of the Board. He does not think the Board can add this to the minutes because it does not reflect the wording sent in the recommendation to Secretary Pena dated April 7, 1998. Zerm stated he understood they were talking about all the pits at the site. At the time of the presentation there was talk about storing 2400 pits a year. Belisle stated she did not know what letter was sent to headquarters, but she blocked consensus in reference to all the pits, and stood aside on the statement if it referred to pits in disposition. She talked to Hallmark and he remembered writing the exception on the overhead, if it was sent to DOE, it was not what the Board approved by consensus. Price asked where the addendum came from. Lopez stated it came from Belisle. Price noted the minutes are reviewed consistently and would be opposed to changing the minutes. W. Kelley stated that if they have a set of approved minutes that say one thing and are wrong the Board should address the issue again, not change the minutes.

Blankenship stated the Board couldn't change the letter sent to DOE, he is willing to open up the Nuclear Materials task force to review this if the Board feels they wish to do so. Zerm reiterated that from his point of view the Board was talking about all the pits. If the Board were just talking about certain selected pits then the workforce would end up having a higher exposure rate. The recommendation sent was correct because it did not discriminate between what is stored and what is not stored. Juba stated his understanding was they were talking about pits in general. In his mind they should all be in the safest storage. It's more important to have enhanced capabilities for storage. Martillotti noted he was watching this issue very closely and he understood they were talking about all the pits. He asked what the significance of this was now. Belisle stated that at the time this was being presented, pits were slated for disposition. These pits will not exist in 25 years. The document for strategic reserve pits assumes a life of 50 years. They were talking about a 20-year certification time limit, at the last meeting they heard it was 30 years. Pits are put in certified packaging for 50 years in a container that lasts 20 years, they will have to be repackaged, that is why this distinction was made. Martillotti noted that the only one that had a 20-year life was the knife edge seal. At the time this was the limitation on the copper gasket. That was his understanding of this process. The lid could be removed and the gasket replaced possibly by remote control. Zerm added that to keep exposure rates down, bore scopes could be used to view the pit through an accessible port. W. Kelley stated the issue is whether to amend the minutes. If the Board wants to discuss this it should be an assigned issue for a task force. Blankenship stated he would like to hold a task force meeting, and it would be worth consideration to review pits and the kinds of exposure warranted for

transportation and compliance with long-term storage, but the minutes would not be amended.

TASK FORCE/SUBCOMMITTEE REPORTS

Policy & Personnel

Blankenship stated Policy and Personnel had met twice to review the various approaches to membership continuity and new members. Kunz asked for consensus on all recommendations. Juba suggested adding "other" to III.B.3. Blankenship stated it was already in the bylaws under stakeholder vacancies that consensus may not be broken by a member under review. Price stated she believed it should be "member under consideration should not be able to block consensus". Juba suggested the statement "the board member under review is ineligible to block a consensus vote on his or her membership renewal." He also did not agree with III.B.2. He would not want to bring them back. W. Kelley stated the bylaws do not state you cannot serve after three terms. Juba noted that with the consensus arrangement he does not believe that after six years on the Board, someone should be eligible. The Board should just thank him or her and move on with a new member. W. Kelley stated if a person wants to get back on the Board, it only takes one person to block his membership at a later date. J. Kelley noted if anyone wants to come back after six years and staying out one they still have to go through process. Juba withdrew his block. Kunz called for a consensus with the addition to III.B.3. The Board approved the changes by consensus.

Health & Safety

Blankenship stated the task force met last week. The discussion was an extension of what was done previously. The task force would like to bring presenters that reflect concerns of health and safety. They would like to approach Program and Training for a presenter. The presenter could be someone from Pantex that could present an overview of the site. He would like to know more about exposure to beryllium. Martillotti stated that DOE worker health preparers have suggested they could make a presentation to the Board. Mortality report preparers have also noted they could make a presentation to the Board. Blankenship would also like to bring someone in to the task force, such as Dolezal, to coordinate the occurrence reports.

W. Kelley stated that concerning Donelson's questions there would be an emergency management session in June.

Donelson asked if Nominations would be having a meeting. Juba stated Zerm is working on getting minority applicants, and they have talked about having a Nominations meeting soon.

PUBLIC COMMENTS

Cockrell stated the advisory board mandate wants accurate minutes. He asked Mulder if the Board received $300,000 in allocated funds. Mulder stated he believed $350,000 was allocated, but local funds are significantly less. Cockrell stated the Board should at least act to hear the grievance of the area citizens and landowners. He noted that out of the 14 people east of Pantex only three people had been contacted. He would like the Board to address why there is no one from Carson County on the Board. There are many people from Panhandle who can serve on the Board. J. Kelley stated they have two Board members who live in Panhandle, Billie Poteet and Galen Boothe.

CLOSING REMARKS

W. Kelley asked that meetings be kept on the Friday fax until the week of the meeting. Kunz summarized the meeting and congratulated the Board on the passage of the bylaw changes. She reminded everyone to submit March minute changes to the office by May 6.

Kunz adjourned the meeting at 4:50 p.m.

PANTEX PLANT CITZENS' ADVISORY BOARD

806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
Draft
FIFTY-FIFTH MEETING

Tuesday, May 25, 1999
10:15 a.m. – 2:39 p.m.
Amarillo Senior Citizens' Association
Amarillo, Texas

INTRODUCTION

The fifty-fifth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, May 25, 1999 at the Amarillo Senior Citizens' Association, Amarillo, Texas. The meeting began at 10:15 a.m. and adjourned at 2:39 p.m. Due to the lack of a quorum the meeting was informational only. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Emergency Management Presentation

PPCAB Members in Attendance: Pam Allison, John Blakley, Sidney Blankenship, Galen Boothe, Paula Breeding, Rusty Donelson, Walt Kelley, Billie Poteet, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Nathaniel Cantly, Bob Juba, Janette Kelley, Denise Price, and K. R. Ramakrishnan.

Ex-Officio Members in Attendance: Liz Bills for Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Jerry S. Johnson, DOE; and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: John Bernier, DOE; Rafael Casanova, EPA; Shawn Hess, TNRCC and Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. James Hallmark, WTAMU.

Observers: Mavis Belisle, Tom Castleman, Richard Edmondson, and Don Moniak.

WELCOME/MINUTES

Hallmark welcomed everyone, and reviewed the agenda. March minutes were reviewed and changes by Allison were made. March minutes were not approved. Hallmark reminded everyone that changes to March and April minutes must be turned into the office by June 9.

CO-CHAIR COMMENTS

Blankenship praised the openness of the Clinton administration. He then referred to the supplement to the draft Surplus Plutonium Disposition EIS on page nine where pit repackaging exposure rates are mentioned in view of the sealed-inserts. He suggested the Board might want to review this. In last month's minutes he made the statement that Board minutes had to be in the reading room within 30 days. This statement was incorrect. FACA asks for comprehensive minutes, but there is no time limit.

Blankenship noted the balance of the Board is in need of corrections, it was suggested that the Nominations committee could meet during lunch. Several people have asked that Nominations come forward with a nominee.

Blankenship stated it is now May and the Board has not come up with any recommendations. Martillotti sent the ATSDR report to him and comments are due by the end of June. He suggested the Board review this report.

Zerm stated that in relation to openness in the O'Leary administration, his concern is in dealing with weapons system and the people who do not have the same concerns as the United States. He agrees the public needs ample information on environmental issues, but not the weapons system. He added that the executive order that any classified document over 25 years old would be open was suspended. Zerm suggested the Board discuss this for a possible recommendation.

Zerm added a commitment had been made to get more minorities and women on the Board. The Nominations committee has been working on this with brochures and applications sent out to LULAC, the Hispanic Chamber of Commerce and NAACP.

Booth stated the Board had not authorized the taping of meetings, and noted an audience member was taping the proceedings. Hallmark noted that it is the right of a member of the public to record the meeting without obtrusive lighting. Zerm noted that when Belisle was on the Board that they had requested meetings not be recorded. Allison stated it is a public meeting, and other persons have taped and recorded the meetings so there is precedence. She noted that the Bylaws address the Board's activities, but not the public's. Blakley stated he saw this as circumventing the bylaws,

and until the Board could get clarification he did not see how the meeting could proceed. He asked if Board members could be held liable if the meetings were taped. Walton stated the accepted standards of public meetings are they have no control over what the public does. The bylaws affect official recordings of the meetings, as far as the public taping it would be stepping beyond the bounds of the Board, as long as it is not disruptive to the flow of meetings. Blankenship stated that Bylaw 9B5 restricts the public from using cell phones, etc. He is not aware of any other tapings in the past, but suggested continuing the meeting and tending to business, if the taping proves disruptive then appropriate action may be taken.

Zerm objected to the taping and left the proceedings. Hallmark noted the Board no longer had a quorum, therefore the meeting would proceed as an informational process. Blankenship stated the ex-officios would not be required to stay for the meeting, but it has been requested that W. Kelley continue with the afternoon presentation. Mulder agreed it was a public meeting, and the public has the right to participate, but asked what happens if another individual in the public does not wish to be recorded. Blankenship noted it would be outside the Board's jurisdiction unless it became disruptive. He added that if the Board meetings are taped and then taken out of context the Board may want to consider recording their own meetings as a way to protect themselves.

Hallmark stated the Board has no jurisdiction over the public, therefore members must decide if they want to speak or even be at the table. Walton noted that case law states if in a public forum there is no recourse for taping by a public member unless it is used for commercial purposes or to defame a person. Blakley recommended adjusting the agenda to hear W. Kelley's presentation and adjourn the meeting since there is no quorum.

W. Kelley stated he had no problems with taping the meetings. He is used to being taped, and is familiar with what can happen if taken out of context. Since this is a public meeting the Board needs to go ahead and tape them. He noted the Board members need some answers from the State and DOE, he thinks the Board needs to be educated on liabilities for Board members. Everyone fears being sued but members may be protected. If members can be sued, then perhaps they may want to leave the Board, or get insurance for Board members. The Board may want to have a defender for members since they do not know what the liabilities truly are. Johnson stated they do not need input from the State of Texas since they are represented as an ex-officio member. The best thing is for this board to provide input with respect to activities ongoing at Pantex. He believes as long as the Board's remarks are tailored to ongoing activities and making recommendations, then he does not see how anyone can be held liable. Johnson added that liabilities occur when personal attacks or remarks are made. He recognizes that everyone has opinions and feels certain ways about what is occurring at Pantex, as long as it takes a consensus and business is being conducted members should be all right.

Hallmark asked if it would be appropriate for the June presentation to be on Board liabilities. Walton stated they could have someone from the legal department that could come out and make a presentation. W. Kelley stated the problem is not necessarily the concerns and fears of making recommendations, but what is occurring internally on the Board. Blankenship noted the bylaws put the Board under federal jurisdiction, but as a Board it is really functional. He did not know what would make members liable as a Board. He recommended this be presented to the Board for informational sake, and members may want to be educated as to the ramifications. Boothe stated he would like taping of the meetings to be put on the June agenda. If the Board is going to allow videotaping by the public, then he suggested having the Board record the meetings to limit liability. Allison noted she agreed with what the others were saying but she would also like a presentation on something substantive at the June meeting.

Johnson suggested that prior to proposing nominees to the full Board, the chairs meet with individuals, that way if there are concerns they can be worked out before the names are presented formally to the full Board. If their opinion changes between the meetings members can state they have a concern with a person on the slate, then nominations could go into session immediately. The Board needs to be mindful of sensitive issues.

Blakley reiterated he had made a recommendation to do the presentation then adjourn. Hallmark asked for comments on the recommendation. Moniak asked that the Board continue the meeting. Hallmark noted the recommendation was to skip to the presentation. Blankenship disagreed. He would like to continue the agenda for informational purposes only. It was decided to continue with the agenda.

TRANSPORATION SEMINAR UPDATE

Blankenship stated the transportation seminar took place over May 20-23. Himself, John Blakley, Dr. Ramakrishnan, Nathaniel Cantly, Denise Brooks, Laura Pendlebury and Becky Lopez attended it. Participants took a tour of Fernald on Friday morning, then spent the rest of the time developing transportation recommendations. He noted that Fernald is set for closure and has a dedicated train for transport to Utah. They have a very shallow water table, and use the pump and treat method for remediation of uranium contamination. They also have onsite disposal and lots of waste shipments. Participants focused on issues relating to all the sites. He participated on the routing, mode and cost group. He did not discover any significant routing through here by DOE at present. Blankenship noted that individuals signed the statements not as representatives of their Boards. Therefore they are not endorsed by the PPCAB. They are of a programmatic point of view. There was reluctance to give consideration of packaging and shipping of plutonium pits, so they were generally left out as transportation issues.

Blakley stated he found the workshop interesting. There was a presentation on the long shipping process from one point to another. It showed how cumbersome the process was. He could see that the crowd thought it was cumbersome, but they added

recommendations to it. It seems people also complained about the cost, but continue to make it more laborious. Transportation needs to be dealt with as quickly as possible. Disposition is safer then letting barrels sit outside waiting for shipment. He thinks DOE could do a better job of explaining the risks of transportation to the public.

Mulder stated that Denise Brooks attended from his office. As of today some shipments will be going through I-20 and I-10. He does believe some shipments are currently going on I-40 through Amarillo to the Nevada Test Site. The State does have a program for training local responders. He added there is a problem in educating the public with these issues. In the history of the U.S. there has never been one incident of a person dying from exposure due to an accident involving radioactive materials.

White stated he had a letter to the editor from a publication he circulated for those interested. Boothe stated that based on Mulder's comment on the response and education of low level waste by the DOE, it seems the states are doing well training people to respond to accidents. W. Kelley added that radiological training is big in Texas. He stated that at one time I-40 was going to be a route, and radiological concerns would be on the lower end of a response. The threats are there but the advantage is all the training received because of DOE and their radiological concerns. It takes training to respond to incidents and they do not want to do away with the training.

EX-OFFICIO REPORTS

TNRCC

Hastings stated that the TNRCC and EPA held a joint public meeting on May 20 to provide information concerning DOE's petition for deletion from the National Priorities List. The EPA is responsible for making a determination on the petition. The TNRCC will concur or will not concur with that decision. The TNRCC's role will remain the same regardless of the decision. DOE is required by their RCRA permit to cleanup the site. The TNRCC is currently reviewing documents related to the site cleanup and ground water issues.

Governor's Office

Mulder stated the PEIS database handout was on the table. Vanessa Gonzales from his office will be attending the PEIS meeting. He noted that Pantex and the PPCAB might be interested in seeing if any of that money is going to Pantex. Blankenship stated he was under the impression that the money would not go to the sites, but to the members who were involved in the suit. Moniak noted the Boards do not receive money, but they can solicit input on what is on the database. The database is a major part of the settlement. Mulder stated he did not mean the Board would get money, but that the Pantex program might get some. Blankenship asked if there was any sort of draft or any way of knowing what is going to be in the database. Mulder suggested coordinating with those entities that might have concerns with what is in it.

DOE

Walton stated that in the past members had asked about a tour of the site. He has received a list of members wanting to take the tour, it is a more complete tour then what the public gets. If any other members would like to participate, they should let him know. He will work with the office to firm up a date.

Johnson reported they had begun borings on Cockrell's land. They have three investigative borings on five feet of saturated zone, a quick detect test was used and it detected high explosives, the other two were dry. All three will be plugged. They will brief TNRCC on that. Moniak asked if "plugged," means a temporary covering so they can go back and put in monitoring wells. Johnson stated they were capped after they collected data and designed a remediation plan off-site. Moniak asked if it is contaminated if the people east and northeast are affected. Johnson stated they will contact affected landowners with the data. White asked about the wells being capped. Johnson noted they are capped according to the Texas administrative code.

SUBCOMMITTE/TASK FORCE REPORTS

Health & Safety

Blankenship stated that Martillotti had forwarded the Public Health Activities Site Plan for Pantex to him. The Health and Safety task force will try to deal with this and they may try to make recommendations at the next meeting. At the last meeting they dealt with the transportation workshop and health studies. The report reflects some suggestions that there are gaps in knowledge. It has come up with suggestions for future studies. He asked what kind of follow-up the Board wanted. The current studies are being conducted at the 12 sites. If the Board requested DOE to follow up on this they would be willing to do so.

Budget & Finance

Blakley stated the Budget and Finance committee met last week as tasked, to evaluate the office manger's performance and make a recommendation on a wage increase. The committee met, discussed and passed their recommendation on to WT. The committee had a limited amount of time to do this because the university's budget deadline was May 15. WT will make the ultimate decision on the administrator's salary.

Environmental Restoration

Allison stated the task force had met twice, once last month and then again this month. At the first meeting there were several people from the public present, and there was only one at the last. She asked if anyone had any suggestions to increase public participation. Hallmark suggested the community calendar in the newspaper advising of public meetings. Blankenship stated it would be better if the public knew what was going to be discussed at the meeting, but did not know if this would help. Allison

suggested sending out post cards to the office's mailing list. Johnson suggested they not limit it to just the mailing list, but have a public notice. Allison noted it might be useful to do both. Johnson added he would follow up to see if it needed to be included on the federal notice. W. Kelley suggested having the office administrator research the information, the Board may be want to put a quarter frame ad in the newspaper. Hallmark suggested this could be something Community Outreach may want to do.

Community Outreach

White wanted to let everyone know that they have volunteered Board members to speak at public meetings. The Tri-State fair is coming up and they will need volunteers to man the booth.

Policy & Personnel

Blankenship wanted to remind everyone of the need for a second reading of the new bylaw changes. He noted the committee might have to look at Nominations for changes.

OCCURRENCE REPORTS

Dolezal stated there were twelve occurrences this month. Mason & Hanger is in the process of answering a defense board issue as to why some of these things are occurring.

On #27 Breeding asked if the W76 was incorrectly processed because it looked like something else. Dolezal stated there was no difference in the part. They just need to look at the part. The procedure step that identified what they needed to do was in a note, not written as a procedural step.

It was noted that #28 had happened before. It was asked if this was an outside contractor. Dolezal stated it was a labeling discrepancy. They have the breakers labeled in the breaker panel.

Moniak asked about the Tritium vacuum cleaner, and if this was approved equipment. Dolezal noted it was a brand new cleaner and it died right away. It was approved for what they were going to do.

Moniak asked about the tornado doors on Bldg. 12-66, and how long they have needed to be repaired. Dolezal stated it was 6-8 inches thick, buttons operate the doors and the operating button and rope cannot be used at the same time. They have repair problems with these doors. The stage secondaries on 12-66 in Stage B are approved containers. The tornado doors are not required to stay stationary. Moniak asked how long items had been staged there and at what point does staging become storing. Johnson noted this was a policy question and Dolezal could not reply. Walton added that stored on an

interim basis means a formal decision has been made on where these will be stored, until then it is interim storing or staging. Dolezal noted staging started in May of 96.

Moniak asked why the occurrence report on #37 is sparse. Dolezal stated it involved sensitive materials, the concern at Oak Ridge is not of concern here. Dolezal noted that what is done at Pantex does not create a concern at Oak Ridge. Moniak asked if they had resolved the issue on tork. He asked if there is strategic reserve or are they surplus. Dolezal believed it was both and involves 56-70s.

EMERGENCY MANAGEMENT PRESENTATION

Walt Kelley made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion following presentation

Donelson noted that those in the ten-mile emergency zone need to go to the fairgrounds, he asked if the Clements Unit is included in that. W. Kelley stated they would go into lock up and monitors would be sent out there. Donelson stated that the Clements Unit has about 4,000 including employees. The employees can leave and go to the emergency zone. He asked if the prisoners had been told that in case of a situation, they cannot leave. W. Kelley stated the Clements managers have been told, but what their procedure is he does not know. W. Kelley stated they have done their job by informing management at the prison. They have to leave a lot of what they do to the guards' discretion. Mulder noted they have gone through the procedures, and they will be handled just the same as in a tornado. Donelson asked if each and every inmate had been instructed that they are in the emergency zone, and have they been informed of the risk and that they cannot leave. He asked if they know the risk of being in that specific prison. Mulder stated he did not believe each individual had been given a list of potential risks they would come up against. Donelson noted this particular risk is unique to these two prisons. Booth agreed there is not another Pantex near the other prisons, but there are chemical plants close by to other prisons. If prisoners are going to be informed as to the risk of the surrounding areas, then they need to be informed about all risks at all prisons.

Blankenship asked if funds for emergency planning at Pantex were tied to the expiration of the AIP in August 2000. W. Kelley stated the AIP expires at the end of fiscal year 2000. Blankenship asked about the 100-year flood plain. Johnson noted that with respect to the Texas administrative code, the waste treatment plant must be placed above the 100-year plain.

Donelson asked what the plan with Highland School Park was. W. Kelley noted they have a warning bell inside the school, and sirens outside the school and the football field. He added that a specific exercise with Highland Park has not been conducted recently, but they are coordinating one with them. Donelson asked if they keep buses at hand to evacuate the children and teachers and bring them into the fairgrounds. W.

Kelley stated they are to use the buses on hand and teachers' vehicles to bring everyone to the center. They will also dispatch city buses to go pick them up.

Donelson asked how orderly the evacuation would be at the meat packing plant. W. Kelley stated it would be disorderly. Everything to do in case of an emergency has been posted in five different languages. They can just hope the public will take the steps they are supposed to. Donelson noted they might have a situation with city buses deployed to pick up children, mothers picking up children and IBP trying to come in to town. W. Kelley stated it would be a problem that will have to be dealt with after the fact.

Donelson asked what kind of training had been set up with IBP employees. W. Kelley stated he was not aware of any. Donelson asked if they were aware of the reception area, escape routes etc. and had been tested. W. Kelly stated they probably were not. It is up to the government to inform the management about the situations, they cannot go in and test them. Donelson asked if Kelley would like to see them trained. W. Kelley stated he would and that five years ago they spent $9,000 to train citizens of what to do in case of an emergency. They had one person attend the first program, two at the second and one at the third. Donelson noted that people tend not to take advantage of protection for themselves. It would be a nonstop job to make sure that everyone knows what to do and how. W. Kelley stated they have done everything possible, but if workers are not informed there may be regulatory programs that can be addressed. Allison asked what would happen if employees go home instead of the reception center. Kelley stated that if contamination is a problem then they will attempt to have management establish in place sheltering, but the contamination will be on cars also. They may not go home, or to the reception center but probably to area hospitals. Once word is out, they cannot wait to put everything in place then warn the public, they need to warn the public first.

Blankenship stated W. Kelley had mentioned funding a study of the emergency preparedness zone. He asked what would be studied, what did they hope to find, and where would the funding come from. Kelley noted the survey would answer Donelson's questions, things like; do they know what to do, where to go, are they getting the information needed, monitors, etc. If PPCAB, as an unbiased organization, funded a study by college graduate students it may provide more information. They have distributed 500 videos, but he does not know if anyone has seen them. Moniak asked where Randall county fit in this. Kelley noted it falls under his jurisdiction. Moniak asked what would happen if the winds came hard from the northwest. Kelley noted he had been led to believe that there was no danger outside the 10-mile EPZ.

Moniak asked for Kelley's general impression of the highest credible IBP accident. W. Kelley noted it was an ammonium release. Moniak asked how high that was. W. Kelley stated it was so significant that the school will be warned by IBP. He added that on June 21 IBP would provide documentation for this information.

PANTEX PLANT CITZENS' ADVISORY BOARD

806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
Draft
FIFTY-SIXTH MEETING

Tuesday, June 22, 1999
1:30 p.m. – 4:55 p.m.
Amarillo Association of Realtors
Amarillo, Texas

INTRODUCTION

The fifty-sixth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, June 22, 1999 at the Amarillo Association of Realtors, Amarillo, Texas. The meeting began at 1:30 p.m. and adjourned at 4:55 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Board Liabilities Presentation

PPCAB Members in Attendance: Pam Allison, John Blakley, Sidney Blankenship, Galen Boothe, Nathaniel Cantly, Rusty Donelson, Janette Kelley, Walt Kelley, Billie Poteet, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Paula Breeding, Bob Juba, Denise Price, and K. R. Ramakrishnan.

Ex-Officio Members in Attendance: John Bernier, DOE; Rafael Casanova, EPA; Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: none.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, Willie Beverly, Tom Castleman, Alan Dutton, Timothy Dwyer, Mike Gardipe and Don Moniak.

WELCOME/MINUTES

Kunz welcomed everyone, and reviewed the agenda. March minutes were reviewed and approved by consensus. April minutes were reviewed and approved by consensus. Kunz reminded everyone that changes to May minutes must be turned into the office by July 7. W. Kelley requested a change in the agenda while there was a quorum. The agenda was changed by consensus.

SUBCOMMITTEE/TASK FORCE REPORTS

Nominations

Zerm stated the committee interviewed Osborne & Villanueva last week and Cruz-Perez and Phillips were interviewed Tuesday morning prior to the Board meeting. Zerm presented a slate of all four names to the Board for a first reading. Kunz asked for comments. No comments were given. She asked for consensus of the slate of four. Consensus was given for the first reading. Blankenship congratulated the committee for their work in bringing forth the slate.

Policy & Personnel

Blankenship stated this was the second reading of the by-law changes. He asked for comments or questions in relation to the changes. Referring to Juba's previous comment of members serving no more than three terms he feels the spirit of the term change is reflected in the writing. He added that there is a turnover of 1/3 but it is due to resignations. J. Kelley questioned if the issue of someone taking over an unexpired term was addressed in a different area of the by-laws. Blankenship stated they did away with that because if a person serves more than twelve months then he is fulfilling the term.

Boothe stated he was opposed to III. B. 2 and suggested members be restricted to a full 2-year term. Blankenship noted it dovetailed with III. B. 4. Allison noted it would the Board's consensus if the member wanted to return to the Board. W. Kelley noted it should read one term not one year. Blankenship noted it should be term, but asked if the wording could be changed in a second reading. Allison asked if this was the same reading as the first. Blankenship stated it was. W. Kelley asked if the wording could be changed now and presented as a first reading. Blankenship agreed to the change.

Blakley asked how this would affect new members of the Board. He asked why members could not end from the start date of each member. Blankenship stated it would require going back to when each member started, whereas the original intent meant the Board would come up for renewal every two years. Blakley asked if he anticipated any early resignations due to this. Blankenship noted it would be easier for

record keeping. W. Kelley stated what the committee was looking at was if you have less than a year beginning on a certain date then it counts as a full year, otherwise it does not. Every term is two years. All new members would serve a full two years. These members today would actually serve 1½ years. Otherwise nominations would be constantly meeting and trying to fill slots. Kunz noted that with these by-law changes it would give everyone the opportunity to know when their terms end. Blankenship stated that if the Board kept up with each person's term and resignations they would be confronted every meeting with members being replaced or expired terms. They would always have to seat new members, and it would be an administrative burden to keep up with every member and when their term expires.

Kunz noted the office could keep up with the administrative bookkeeping if the Board decided to keep up with terms and send them out in the packets. Allison stated there are several ways to keep up with terms, but asked how members felt about what was on the table. Boothe asked to dispose of the second reading with the word "year", because he would block that, and do a first reading with the by-law word "term". Kunz noted the change "year" to "term" and asked for members opposed to the change. The Board approved the change by consensus. The first reading was approved by consensus.

Environmental Restoration

Allison stated that Environmental Restoration did not meet this month, but did last month. Johnson was looking into providing information to the committee and she noted that it was not included in the tracking list.

Health & Safety

Blankenship stated the task force met Monday night. John Campbell addressed the committee about the draft agenda. There was discussion of the different studies and the fact that comments are dune by June 30. The committee did not come up with a joint comment.

Nuclear Materials

Blankenship noted Nuclear Materials met and reviewed the packaging of the sealed inserts. The concerns addressed were those brought up at the last Board meeting. He conducted the meeting to address the concerns of the AT-400A and sealed inserts. Dennis Kelley from the plant helped the committee follow through on the concerns on the supplement disposition EIS and integrated pit storage document. The memo from Blair was also addressed in the meeting. He noted the timing of the document lends to the changes.

Martillotti noted a word change on page 2 of the Nuclear Materials minutes. It should read "containment". Moniak noted there was a concern about cutting the AT-400A open because it is sealed shut. He asked if this was identified as a concern when it was designed. Blankenship noted he was introduced to the AT-400A at a Board meeting.

He believed it was to be a dual container. Moniak noted there is a 3013 container that is sealed as well for plutonium oxide and metals. He asked if this was a concern. Bernier stated he could not answer that, but would find out.

Legal Presentation

Betty Hollowell, Area Counsel for the Amarillo Area Office, made the presentation. She stated the information was verified with Marc Johnston, and Martha Crosland and that similar advice had been given to the CAB at the Kirkland Area Office. She noted the office recognizes the possibility that a lawsuit based on discussion can occur. The general policy recommended is that legal counsel should represent CAB members. Two basic criteria are used to determine representation: 1) the activity the Board member was doing in the process of this was within the parameters of the member's duties, and 2) what is in the best interest of the United States. If it were found to be appropriate then a DOJ would represent the Board member.

As an individual, a Board member can reject representation and retain their own counsel at their own expense. If representation is accepted then whether representation is provided by counsel or not, the member is solely responsible for any costs in money damages. Punitive damages are those judged against a person to punish them and the government does not pay it. The policy is to promote citizen participation and providing representation does this.

Allison noted that if someone is doing the Board's business and unless they are attacking someone personally there is no liability. Hollowell stated that the number of lawsuits that are dismissed are due to suitability, it is hard to be found liable for actions conducted by the department. Hollowell added they could be sued for breach of contract if they have one with a facilitator. Allison asked if she agreed with what Walton said last month. Hollowell stated it was highly unusual for a Board member to be sued.

Moniak asked what the statue of limitations was for liable or slander. Hollowell stated it depended on the court where the suit was filed. Moniak asked how many suits had been brought against CABs. Hollowell stated she was not aware of any.

Hollowell cited as an example an altercation between two Board members. She stated it would be highly unlikely the Department of Justice would defend either for attacking each other. Moniak asked, for example, if someone stated a company is not doing a good job. Hollowell noted if it were stated in good faith, in the members opinion that company was not doing well, then the Department of Energy would recommend that Department of Justice defend the CAB member. If DOE asked the Board to review the work and comment on it and someone stated it was poorly done, then the Department of Energy would recommend defense of the member.

W. Kelley asked about action arising from Board recommendation. He cited the example of a Fernald recommendation. The department accepts the Board's recommendation; the farmer sues for loss of income. He fills against both the Board

and DOE, DOE may come out of it, can the Board. Hollowell stated that if DOE feels it is within the Board's purview they would recommend the Department of Justice defend the members. If the criteria were met then DOJ would defend. W. Kelley asked if both are found liable and the Board is responsible for 30% then who pays. Hollowell stated DOE would possibly indemnify the board. White added the Board in their statement noted there was more property that could be used by the farmer. W. Kelley asked if the Board could get personal liability insurance coverage. Hollowell noted the department is paying part of senior management insurance right now, but there are some aspects it does not cover. Hollowell said she was not aware whether DOE has addressed payment of insurance premiums for Board members.

Donelson asked if the CAB in Kirkland had concerns about liability and if the basis of their concerns were similar to this Board's. Hollowell believed it had to deal with a facilitator contract, and they did have concerns. J. Kelley asked if the Board could be sued for making a recommendation. Hollowell stated a case may or may not be dismissed by the court due to the nature of the issues, but it is possible the Board could be sued. Edwards noted the Board does not handle any money. Campbell added that Mason & Hanger provides for some of the CAB functions. DOE funds WTAMU a grant that also supports the Board. W. Kelley asked that if they are sued is their homestead protected. Edwards stated it depends on the lawsuit, he is not in a position to give legal advice, but his understanding is that if you have to go through bankruptcy the court would review it. He believes it would be protected. Blankenship noted that Policy & Personnel reviews facilitator, administrator, and budgetary issues. DOE takes the responsibility of whether to take advice, as long as it is taken in good faith he does not see this as a possibility.

DISCUSSION ON AUDIO/VIDEO TAPING

Allison suggested the Ex-Officio reports be first. W. Kelley then asked if there would be discussion of the audio/visual recordings. Blankenship stated he would like to discuss it if it could be done quickly. W. Kelley stated the purpose of looking at the liability issue was due to the recording of the meetings. His concern is that the Board is spending a long period of time on the minutes, and asked if the other Boards record the meetings. It the Board is going to open up the meetings to recordings then they need to have an official recording. J. Kelley noted that some Boards keep the recordings for a certain amount of time then discard them. Blankenship stated whether it is allowed or not, the Board should proceed with the meetings. He called for a vote to record the meetings and if it is approved by consensus then the Board needs to go ahead, if not then it needs to continue as usual. He added that if anyone wants a copy of the minutes they are available.

Campbell stated that Mason & Hanger can and is prepared to do this or the costs could be absorbed by WTAMU. W. Kelley proposed having audio and video recordings and allowing Mason & Hanger to do it for the Board. Kunz stated the recommendation before the Board would be that Board meetings would be both audio and video recorded and having it done by Mason & Hanger. Bernier asked how much this would

cost. Campbell stated he did not know at this time, but Johnny Mann attends the meetings anyway. Mann stated that if the Board wants to either audio or videotape he hoped to use videotape. If audio taped only it would present a problem because they only have 60-minute tapes. He suggested they bring a videocassette recorder, and if others want copies he can put them on videocassette. The camera would be stationary, and the audio would come through the soundboard. Mason & Hanger has a digital camera that shoots 3½ hours at a time. The cost of duplicating would be the issue. Allison noted they once had videotape but could not tell who was speaking. Mann noted that at that point they did not have the capabilities they do now. Bernier noted that the facilitator also identifies the speaker.

Kunz asked if the Board wanted a recommendation on one or two options, audio/video and who would record. She called for consensus for having all the meetings audio/video taped. Zerm added that if audio/visual taped that the master is kept in the Board office and only the administrator would make copies. The master never leaves the office. Blankenship stated he stands aside on the expense involved because it does not provide the accuracy of the minutes. Mann noted if the Board does a digital recording and wanted to keep the master they would need to incur the cost of a digital recorder and player. W. Kelley asked if it was possible for the custodian to not hand it out. Mann noted he could hand over the master to the administrator and have them take it to the plant to making copies. Johnson stated that FOYA would make things difficult when copies are requested. Boothe noted the Board needed to decide if the recordings would be made. W. Kelley noted that this is an administrative issue and therefore only requires one reading. It was recommended that the Board audio/video record the Board meetings.

EX-OFFICIO REPORTS

Governor's Office

Mulder noted he has been concerned with off-site contamination and, due to time constrains he wanted to recommend a Water 101 seminar. It would be held the morning of the next Board meeting at the Carson County Square House Museum. Some of the issues that are fairly volatile are lead levels in offsite production wells, they have had elevated levels off-site. The second issue is DOE drilling in one site and the landowner in another and coming up with different results. The cost of drilling is another issue. Other issues would be tritium in the water and state of Texas stepping in to protect human heath and safety and the environment.

Mulder is proposing that the State of Texas come in and make the presentation. If they do not get through all the topics he will propose they come back to the next PPCAB meeting until all the issues are addressed. The State is prepared to do this. Bernier noted the date as July 27, and feels this is a great idea. Allison believed the Board could come to consensus on this. J. Kelley noted the Board did agree in the retreat that water would be discussed and this would fall under the issue. Blankenship applauds the State doing this. He suggested members of the Board seriously try to consider a

decision and include this in a consensus decision on the basis of ground water. The Board has had presentations, considerations on proposals under consideration and he would like to come up with consensus advice in the meeting following this.
W. Kelley noted that one of the recommendations in the health study was the educating of the public on the use of the perched aquifer. Mulder stated there has been informal discussion with Hastings about it. Bernier suggested using mass advertising for both the presentation and the July Board meeting. Moniak stated he felt this was long overdue and supported this. There is an agriculture schedule Mulder may want to consider. Moniak asked they include background levels on the first topic, EM-50 technology research and try to do alternative studies. If someone could do this presentation. Bernier stated he felt this may be too large, and could be used at a future date.

Mulder stated that the lead levels proposed for safe drinking is 0.015 mg. They will be prepared to discuss all these issues. The perched aquifer is contaminated; it has been detected off-site. The Ogallala flows to the north. When lead contamination is found in the drinking water in the Ogallala they need to figure out how it got there. The Ogallala flows south to north and the contamination is in the east. Belisle stated she appreciated the initiative but would suggest involving the ground water district. Her understanding is that the natural flow was towards south/southeast. The local part of the Ogallala was now flowing to the north. The last map shows the direction was slightly changing. Hastings noted the current general flow direction is toward the north, neither he nor his staff is aware of changes. This may be recent information they have not looked at, but he will try to find out prior to meeting. Poteet stated she is really for going with the ground water district. Boothe asked if the Board needed to take a consensus vote. He made the motion for a consensus vote. Allison suggested making it a Resolution in support of the Texas ground water presentation on July 27th at the Carson County Square House Museum. Kunz asked for consensus. Consensus was given.

EPA

Casanova noted that EPA had a grant that STAND applied for to get technical advice on the Superfund. Several groups can apply, they can not have two separate tags. The public notice is to accept this. The group has to be non-profit and legally incorporated. It can not be a group that is federally supported. The deadline is July 29th.

On May 21 TNRCC and EPA sponsored a poster board session on EPA's deletion list. They mailed 1,000 fact sheets, and had a total of 50 to 55 people excluding DOE and state people at the afternoon meeting. There were three from the public in the evening session. There are currently no plans for another session.

On the review for petition the contractor is on board and reviewing the petition. They had to stop work due to funding roadblocks, but they have the funding back. They are going to meet Friday to discuss where they are on the petition. At that time they will get the schedule for memorandums. He did not have the schedule for petition. Donelson stated he detected disappointment as to the turnout to the poster board session. He

noted that page 2 of this report detailed the well samples that were taken this quarter. Any exceedences above the Risk Reduction Rule Guidance Document (1996) were listed. Hess then asked if anyone had questions, he would try to answer them.

Department of Health

Martillotti has been in contact with the people conducting studies at the plant in conjunction with the Health & Safety task force. NIOSH is willing to make a presentation to the Board once their report is out. The Epidemiological report is still on task and will be out later this year. Another report on female workers is also being done, but the researcher has moved out of state. It will be out sometime in the future. Allison asked if the mortality report was due out the end of the fiscal or physical year. Martillotti stated it was September. Blankenship asked who would be available to make the presentation on the mortality report. Martillotti stated the people from NIOSH would make the presentation, Thomas Kuble and Barbara Grajawski. The person from DOE would be Cliff Stader. DOE has taken a look at the production and studies. He will look to see if the information may still be available to the Board.

Moniak noted that in the Health & Safety minutes a tour was mentioned, he asked if anyone from the state would be attending that tour. Martillotti stated he was unaware of the tour. On the health & safety report agenda for 1999 and 2000, comments are due June 30. The fiscal year is over September 1999. Blankenship noted some of these are long-term studies and that any additional studies can be proposed.

Attorney General's Office

Edwards reported the National Association of Attorneys General (NAAG)/DOE Workgroup might be coming to the site. Members of the workgroup have expressed an interest in visiting either Oak Ridge or Pantex, so Pantex may be getting a request for a visit. Booth stated he would like the Board to encourage the AG's to visit site and meet with the Board. J. Kelley noted in a conversation with Martha Crosland that an invitation was extended to visit the site.

OCCURRENCE REPORTS

Dolezal noted there were only two new occurrences this month. Allison asked about #39; how does this work, and how did this influence it. Dolezal drew a sketch of how the drains ran through the d-con room outside of the cell. Bernier stated that one of the reasons the piping was hooked to the d-con room was to catch water when washing off any contamination. Dolezal stated they currently have an equipment room with drains in it. Donelson asked for a further explanation on the pipes. Dolezal noted every drain line was capped off so there was no pathway down.

Donelson asked what the condition of the two tanks is. Dolezal stated they were there since the cells were built in the mid-80's. They are drained fairly frequently, and the contents are tested about semi-annually. Donelson asked if he felt the tanks were still maintaining their integrity. Dolezal stated they were.

Moniak noted for lessons learned, since a leak path had been discovered was the facility operating outside the safety envelope without realizing it. Dolezal stated it was. Moniak felt whoever found this should be rewarded due to the possibility of an accident. J. Kelley noted that the final report on #15 but no completion date. Dolezal stated that anything that takes a long period of time to fix still needs to be signed off within 48 days.

CO-CHAIR COMMENTS

Blankenship participated on the conference call of Board Chairs. Hanford will be hosting the fall Site-Chair meeting. In conjunction with NAAG's, he has followed the work they have done with transportation issues. Pantex will be hosting the Site Board Chairs meeting in the fall of 2000.

Blankenship, Zerm, Lopez and Johnson attended the meeting in Albuquerque on funding for the area office. Johnson gave a presentation of what had been done at Pantex. Blankenship suggested considering ground water treatability in a recommendation. A follow up on the transportation workshop is how many members would like to focus on the follow-ups. A transportation-working group has come out of the workshop. He noted that those signing the workshop signed off as individuals not members of the Boards. The wording was wrong as to the Site-Boards deciding to have a working group.

Donelson stated he felt confident that our people did not misrepresent this Board at the workshop. With regard to the Albuquerque meeting he did not get the correspondence addressed to Lon Burnham. Zerm stated he sent the letter as chair of the Program & Training committee. Copies of the letter will be included with the Friday fax.

OTHER COMMENTS

J. Kelley asked if the Board had decided to hold the Site-Board Chair meeting in the fall 2000. Kunz noted it had been decided in April. Edwards asked if there was a date for that. Lopez noted it was tentatively scheduled for September 2000. Allison asked about the evaluation of the administrator and noted that Policy & Personnel usually evaluated her. Blakley noted he was given the task after a Board meeting.

Bernier asked about the tracking sheet and that he is still committed to a couple of items. He is not sure what. On the Hanford trip Lopez is still attempting to connect with the Hanford administrator. Blakley wanted to ask Blankenship about the transportation work group and if each site wanted to have a representative. Blankenship stated it was and if the Board wanted to designate someone to represent them or the Co-Chairs could ask someone to do this. It would have to be someone who would like to look at transportation issues and follow through on it. Kunz asked if there were any objections to having Zerm and Blankenship do so. Allison noted that more members of the Board that participate the better members know what is going on. Blankenship agreed and would like to encourage the other members to interact with other sites and issues that

are interfaced. J. Kelley believes that the representative of this Board could make either a written or oral report to the Board. Blankenship noted there is a stewardship workshop this fall if anyone was interested.

PUBLIC COMMENTS

Moniak asked if Mason & Hanger was now a whole subsidiary of Day & Zimmerman. Campbell stated it was. Moniak noted the April minutes questioned the Board belonging to the Chamber of Commerce. He asked what was decided about that. Johnson stated that legal noted the Board could not be a member of the Chamber of Commerce. Moniak noted the minutes state it was not appropriate. Did this mean legally or ethically? Johnson stated the Board could not be a member.

Moniak stated that Zerm commented the security on the 25-year open records was suspended. Zerm noted that all he could say was what he heard on C-SPAN. Moniak asked about Zerm's comment on the opening of environmental issues but not weapons systems. Zerm noted he would not like rogue states having access to building them. Moniak asked if there are any subsidiaries dealing with Mason & Hanger on technology transfer dealing with high explosives that deal with rogue states. Campbell stated not to his knowledge. Boothe stated in answer to Moniak's question if it's where it belongs and contamination is having something where it does not belong.

Kunz asked for further comments from the public.

Kunz adjourned the meeting at 4:50 p.m.

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The M&I Times

BECHTEL JACOBS
Bechtel Jacobs Company LLC

July 15, 1999

Skills Enhancement Program Back on Line

Effective summer semester, the Skills Enhancement Program courses will be offered through Roane State Community College instead of the Sylvan Learning Center. The same classes (remedial reading, remedial math, and basic computer classes) and the same teachers that Sylvan provided will be available through Roane State. These classes are currently being offered at ETTP.

If you are interested in taking these courses, please request an enrollment form from Pam Wood at woodps@bechteljacobs.org, phone: (423) 241-1352.

If you have any questions on Educational Assistance or the Skills Enhancement Program, please contact Kerrie Cowan at (423) 241-1139.

Radiologically Controlled Areas at ETTP to be Surveyed

Radcon techs will be performing routine radiological surveys in numerous areas across ETTP. This work is part of an initiative to reduce the site's overall radiologically controlled footprint. Approximately 1 million square feet of radiologically posted areas have been downposted or had restrictions reduced entirely. Exterior areas, such as grassy and paved surfaces near buildings, will be surveyed as well as building interiors, including older office furniture.

Surveys will be conducted in the traditional way--by technicians using hand-held meters. However, innovative automated technologies capable of providing real-time data and mapping the survey results will also be used to survey some larger interior and exterior areas.

Work may also be conducted on weekends and off shifts as needed to minimize disruption to normal work activities.

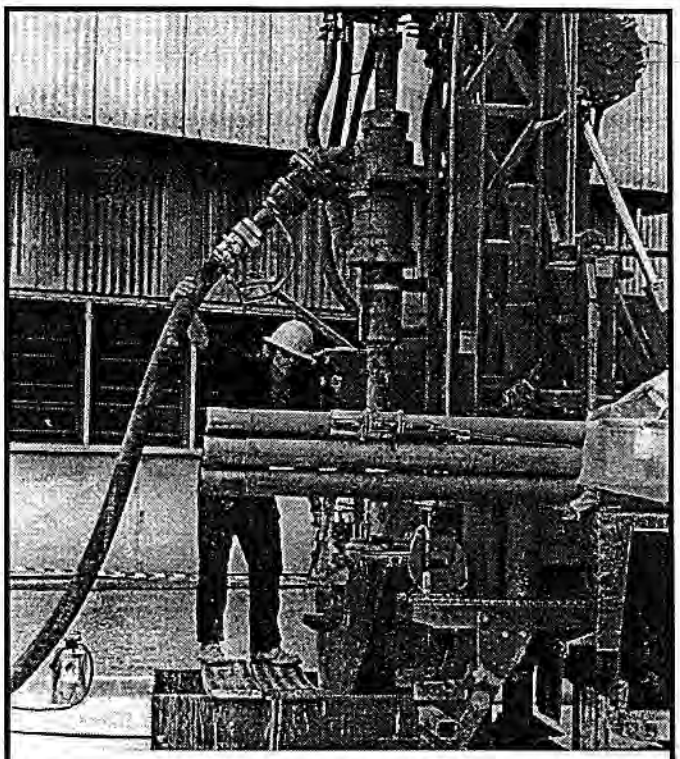
Additional Workforce Violence Training Being Offered at ETTP

The following additional dates have been scheduled for Workforce Violence Prevention Training at ETTP. To attend, you must enroll through Terri Sawyer (e-mail: tlg, or phone, 576-4706.) Classes with less than 10 participants are subject to cancellation.

Additional classes will be scheduled if necessary to ensure full employee attendance.

Thursday, July 15	10 - 11 a.m.
Wednesday, July 21	8:30 - 9:30 a.m.
Tuesday, July 27	10 - 11 a.m.

All classes will be held in the Executive Dining Room in K-1002.



Drilling in Paducah

A dual wall rotosonic rig drills for another sample as part of the Waste Area Group (WAG) 28 Remedial Investigation at Paducah. This drilling method obtains samples at distinct levels by isolating specific formations or zones. The field work is part of the WAGs 3, 8, 28 and Data Gaps project, which will complete investigations required for remedial decisions regarding groundwater. WAG 28 includes locations on the east side of the Paducah Gaseous Diffusion Plant used during construction of the plant in the 1950s.

Medic Blood Drive Planned at ETTP

The next Medic blood drive at ETTP is scheduled for 8 a.m. to 4 p.m., Monday and Tuesday, July 19 and 20, in the K-1002 Auditorium. Everyone who donates a pint of blood will receive a free t-shirt.

Borrowed Cafeteria Items Needed

If you have borrowed items from the ETTP cafeteria (i.e., coolers, trays, utensils, pans, etc.) in recent weeks, please return those items when you have finished using them so that other employees can borrow them for special events. Your assistance is appreciated by the cafeteria staff.

Questions Still Arise on Professional Reference Policy

Human Resources has continued to receive questions from managers, supervisors and employees about the Bechtel Jacobs Company policy for providing either personal or professional references for employees. To serve as a reminder, following is information reprinted from *M&I Times* last fall:

It is not appropriate for any Bechtel Jacobs Company manager, supervisor or employee to try to influence the selection of candidates beyond supplying the information that we have committed to provide as it relates to the transition process. Subcontractors must interview and identify the employees best suited to perform the work. Therefore, Bechtel Jacobs Company cannot provide professional references, performance reviews or any other information to subcontractors.

Human Resources management is responsible for determining what information may be released on present or former employees. All requests for employment information from outside Bechtel Jacobs Company will be referred to Human Resources.

Except for authorized Human Resources, Controller or Legal representatives, no Bechtel Jacobs Company employees may provide information on present or former employees.

This policy does not prohibit personal references such as those required for professional registration, provided the employee is aware of and consents to such a reference, and the individual giving the reference is not acting as an agent or representative of Bechtel Jacobs Company.

In response to legitimate inquiries, Human Resources will release dates of employment and job classifications. Additional information may be released to authorized representatives of DOE for the purpose of performing background checks. Such information includes salary, grade, employee application, resume, citizenship and other pertinent information. Salaries will be verified only if specifically quoted by the inquiring parties, but will not be volunteered. Written authorization by employees is required to release medical or additional information, except in response to a subpoena or other lawful process.

If you have any questions, please contact Tom Roosa (o6y), (423) 241-1150.

CPS Review Classes Offered

The Oak Ridge Chapter of the International Association of Administrative Professionals® is sponsoring review classes for those who are interested in taking the Certified Professional Secretary (CPS) examination.

The examination, which is given twice each year (May and November), is composed of three parts, including areas such as Finance and Business Law, Office Systems and Administration, and Management.

The CPS review classes begin 5:30 p.m., Tuesday, July 20, at 701 Scarboro Road, Oak Ridge, Room 110. A mock exam will be held at 9 a.m., Saturday, July 17, in the same location. The purpose of the mock exam is to help prepare candidates by providing sample questions in a realistic testing atmosphere and giving insight on appropriate techniques.

Roane State Community College and Pellissippi State Technical Community College grant 25 semester hours of credit toward degrees in their curriculum. Currently, more than 50,000 individuals have attained the CPS rating worldwide.

For additional information or to register for the classes or mock exam, please contact Carol McCarty at 576-0083.

Stress Management Tip

Don't rely on your memory. Keep a calendar at home and carry one with you. Write down your appointment times, when to pick up the clothes at the cleaners, when your library books are due, what to pick up at the supermarket, etc. Remember the old Chinese proverb - "The palest ink is better than the best memory."

Portsmouth

Phytoremediation project completed

The planting of 765 one-year-old hybrid poplar trees was recently completed at the Portsmouth plant and the trees are already beginning to show foliage as part of a phytoremediation project to remediate contaminated groundwater.

Volatile organic compounds (VOCs) are captured in the trees' root structures, and ultraviolet light degrades the VOCs as they are transpired along with water vapor through the leaves of the trees. A significant cost savings is expected to be realized through this project by eliminating the need to build and operate a conventional groundwater pump and treatment facility.

Training Request Process Planned

Bechtel Jacobs Company will implement a request and approval process for training to effectively track and manage training needs and costs, effective August 1.

This process will apply to training obtained from any source, including the training subcontract that is scheduled to be awarded on October 4. Beginning August 1, no training will be authorized unless the training organization receives a completed, approved training request form.

The Authorization for Training Courses form will be available on the Bechtel Jacobs Company Forms web page soon. Please contact Kerrie Cowan at (423) 241-1139 if you have any questions.

Speer, Shirley

From: sheppardjd@ornl.gov
To: ALFSAF@MIDWEST.Net; alisaj@apex.net; chce@ldd.net; crhodes@midwest.net; draper@brtc.net; jdingram@apex.net; jonesvw@ornl.gov; jsmart@engr.uky.edu; landfill@vci.net; markkris@earthlink.net; ncourtney@bhsi.com; waldrop4@sunsix.infi.net
Cc: hodgesjc@ornl.gov; redfieldme@ornl.gov; wattierds@bechteljacobs.org; Shirley.Speer@Jacobs.com
Subject: EM-22 WEB SITE
Date: Tuesday, July 20, 1999 9:20AM

The EM Office of Intergovernmental and Public Accountability has a web site that may be of interest to you. This is the DOE office that coordinates the SSAB activities. Their home page has links to SSAB information and to the DOE NEPA web site. The address is

http://www.em.doe.gov/em22/

Hope this is helpful.

John Sheppard

JUL 19 1999

Health · Environment · Safety

Pantex Plant Citizens' Advisory Board

Meeting Agenda
Fifty-seventh Meeting

Tuesday, July 27, 1999
1:00 p.m. – 5:00 p.m.
Carson County Square House Museum
Panhandle, Texas

8 – 12	Water 101 Seminar
1:00	Welcome-Agenda Review-Approval of Minutes
1:15	Co-Chair Comments
1:30	Task Force/Subcommittee Minutes Program & Training Environmental Restoration Nominations Policy & Personnel
2:15	Ex-Officio Reports
2:45	Break
3:00	Updates - Occurrence Reports - DOE
3:30	Environmental Restoration Program Update
4:30	Closing Remarks
4:45	Public Comments
5:00	Adjourn
5-7	Environmental Restoration Program Poster Session

Questions will be invited during Presentations
Public Comment will be invited at the end of the meeting.

WATER 101 SEMINAR

DRAFT

Tuesday, July 27, 1999

8 a.m. – 12 noon

Carson County Square House Museum

Technical Resources – TNRCC, BEG, BRC, AG

Issues – Overview of Perched and Ogallala Aquifers and Known Sources of Contamination

I. Lead levels in Offsite Production Wells

   A. Sampling Techniques

   B. Pantex Lead Levels

   C. Safe Drinking Water Standards

II. Locating the Perched Aquifer Offsite

   A. DOE Test Results vs. Mr. Cockrell's Test Results

   B. Contractual Restraints

III. $50,000 Stainless Steel Wells

   A. The Cost of Punching through the Perched Aquifer into the Ogallala Aquifer

   B. Can You Spell PRP

IV. Other Issues

   A. Tritium in the Water

   B. The State's Role in Protecting Human Health and Safety and the Environment

PANTEX PLANT CITZENS' ADVISORY BOARD
806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
FINAL
FIFTY-THIRD MEETING

Tuesday, March 23, 1999
1:00 p.m. – 5:03 p.m.
Carson County Square House Museum
Panhandle, Texas

INTRODUCTION

The fifty-third meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, March 23, 1999 at the Carson County Square House Museum, Panhandle, Texas. The meeting began at 1:00 p.m. and adjourned at 5:03 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Groundwater Program Presentation
- Update of Pantex Pit Packaging Program

PPCAB Members in Attendance: Pam Allison, Sidney Blankenship, Galen Boothe, Paula Breeding, Nathaniel Cantly, Rusty Donelson, Bob Juba, Janette Kelley, Denise Price, K. R. Ramakrishnan, Frank White.

PPCAB Members not in Attendance: John Blakley, Walt Kelley and Ron Zerm.

Ex-Officio Members in Attendance: Tom Walton for John Bernier, DOE; Liz Bills for Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control; Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: Rafael Casanova, EPA.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitators: Dr. James Hallmark, WTAMU and Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, R. M. Brady, Tom Castleman, Lewis Daniels, Boyd Deaver, Elisha L. Demerson, Timothy Dwyer, Richard Edmondson, Jeff Flowers, Joe Gantos, Johnnie Guelker, Dennis Kelly, Richard Moos, Jeri Osborne, Laura Pendlebury, Bernard Plean, Richard Lee and Scott Wood.

WELCOME

Hallmark welcomed everyone to the meeting and reviewed the agenda. Review of minutes was delayed until a quorum was reached. Once a quorum was reached Hallmark proposed that instead of making corrections to the minutes, all members contact the office with their corrections or clarifications. This would give everyone a month to review the minutes. The new process will be to read the minutes, contact the office with corrections and a revised set will go out in the next packet. Notice of the deadline will be given prior to packets going out.

CO-CHAIR COMMENTS

Blankenship reminded everyone about the transportation seminar to be held on May 20-23, 1999. A fact sheet will be presented at the next meeting for the Board's review.

The next item was a press release Blankenship wrote which he presented to the Board for their review. J. Kelley asked Blankenship to provide a synopsis. Blankenship noted it was a review of the Board's activities in 1998. He asked that everyone review it and if it was not objectionable he asked for the Board to approve its release. He would bring it up at the end of the meeting so members would have time to review it. Juba asked if the Board summary had been done in the past. He expressed that it will not be published due to it not being current and its length. Blankenship stated it would be the decision of the media whether they print it or not, but the Board could say they released it. He noted that Cockrell had suggested issuing a release after each meeting. Johnson noted that in the past Lopez had issued an annual report to headquarters. J. Kelley added that Community Outreach is also reviewing the issuance of press releases. Juba stated that if the Board is going to try to issue press releases they should perhaps have the assistance of a public relations person. Campbell suggested including the release on the PPCAB web page. Blankenship noted the web page is rather intimidating and perhaps Community Outreach should discuss it. He added he did not issue it for a specific outlet, but in a format that will allow the public to review it.

Blankenship reminded everyone that at the retreat they received a tour sheet from the site. He asked if the Board would like to pick a date for a tour. He feels this would be a good way to introduce new members and increase everyone's knowledge about issues that come before the Board. He asks that everyone contact the office for possible tour dates.

GROUNDWATER PRESENTATION

Joe Gantos made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion Following Presentation

Juba asked what a hydro punch is. Gantos stated it punches a hole in the ground then by using a sample sleeve takes a sample without the expense of putting in a well. Martillotti asked if the injection wells were in Zone 12. Gantos stated they are adjacent to Zone 12. Blankenship asked if the contamination is suspended in the perched aquifer. Gantos noted all the contamination is soluble and spreads throughout the saturated thickness. Blankenship noted that someone from TNRCC stated in 1995 that they could drain the entire perched aquifer in 6 months. He asked if this was an accurate statement. Gantos stated that if they can control the percolation, then it is possible to drain but not sure about the 6 month time factors. Anytime there is rain it goes down to the perched. Blankenship asked where the best location is to extract dirty water and clean it. Gantos replied that 20% of the perched is contaminated, and as long as it can be controlled you can extract from the plumes.

Juba asked if there is a cut-off level or if it is a continuous effort. Gantos stated it is in the compliance plan. Hastings added that cleanup levels are the same as safe drinking water levels. Until those levels are reached they will continue to pump and treat. Juba then asked if the perched were cleaned up would there still be a concern. Hastings noted there would always be a concern. Allison asked if the cleanup takes 10 years and the standards change, does the compliance levels change. Hastings stated compliance levels could be modified.

Blankenship stated the Geosiphon system used at Savannah River was in a shallow formation. Gantos stated that when the studies were done they looked at all the available technologies. It is based on systematic methods and broken down to four or five potential processes. The five factors they look at are cost, implementability, short-term effectiveness, and reduction of toxicity or volume of wastes and long term reliability and effectiveness. It was decided to use groundwater extraction with liquid-phase carbon absorption and chemical precipitation.

Allison asked if they had calculated the amount of water in the perched aquifer. Gantos stated 1.5 billion gallons are contaminated. 50 million gallons have been cleaned up on the site. Allison asked if other models had been tried. Gantos noted the same model could be calibrated. EPA said it was the best model they had seen. Allison asked the name of the model. Gantos stated it was MODFLOW. Boothe noted the Savannah River process used ground up iron as a catalyst and was a shallow process. He then asked when contaminates in the perched aquifer originated. Gantos stated the contaminants (HE, Cr, etc.) were probably originally released to the environment during the World War II effort.

Osborne asked how the water had been filtered before. Johnson stated the permanent outfalls went to open discharge and are routed through the wastewater treatment plant. Osborne asked if they were still going to unlined ditches. Johnson noted they were not, but it is still going through a treatment process then sent to the wastewater treatment facility. Monthly reports are submitted to TNRCC. Blankenship asked if there is any way for the source to be contained or a different way to treat it. Gantos noted that landfill 3 will be capped and will eliminate further percolation. Over the past 3-4 years they have excavated other sources and then shipped contaminated soils off site. They have eliminated over 90% of the sources that exist on-site.

Allison asked what year contamination was first detected in the perched aquifer and who detected it. Guelker stated the first detection was in 1989 and Los Alamos did the initial drilling. Allison noted that if contamination was on the ground in the 1940's and was not detected for 50 years, would it be another 50 for it to percolate further down. Gantos stated that 50 years is about right. Allison asked if they would have to wait 50 years to flush it. Gantos noted it depends upon the original concentration. Belisle asked if there has actually been an analysis of the soil column to see where contaminates may be bunched. Gantos stated they track levels down to acceptable levels. Belisle asked if there is a difference in transport time between ground and source. Gantos noted there was and would provide the information to her. Allison asked if a work plan was available. Gantos stated they are still working on that.

Cockrell noted he had received information from DOE about the Corp of Engineers. Brady stated that fine grain has been found 20-30 ft. deep. In 1992 they encountered over 80 ft. of fine grain. Cockrell noted that on his land the most he has is 5-6 ft. of fine grain. When he dug his private well it was only 2-½ ft. He asked what would happen if there is no fine grain zone. Brady replied that the perched water would go straight down. Blankenship asked if Cockrell had received his test results. Cockrell noted he had never disclosed them to the media. He did give Moniak permission to get his results, but he has had five calls wanting to know his water test results. He noted that homestead wells are drilled exactly same way as in the past. His well was 350 feet. From April 12 to July 28 1996, there were 12 tests conducted and minute contaminates were found in each testing. He is confident this is the first time in 3 years he has not broken out, but he is drinking bottle water. Cockrell passed out copies of groundwater protection project. The neighbors on either side of him do not want to drill wells unless they are paid for their water. His neighbor informed him he is withdrawing from any negotiations with anyone from the government. He feels monitoring wells are a waste of money and time. Cockrell will grant extraction wells for fair market value. J. Kelley noted that at one time Cockrell showed them pictures of his hives, she asked if they have concluded what caused them. Cockrell noted it is in the list of contaminates.

J. Kelley asked why the contract was rejected. Cockrell stated the lawyers in Albuquerque said it was too expensive. Allison asked when samples were taken from his wells for Pantex or TNRCC. Cockrell noted that two samples of CR4 were taken and the results are not back. They were taken February 22. Pantex wells 1030 and 1031 were testing 840 parts per billion. These are only 750 feet from Pantex. Juba

asked if there was anything this Board can do for this contract. Campbell stated there was never a signed contract, but there was an agreement that was rejected by Albuquerque. There is no appeal process because no contract was signed.

Allison noted that according to the diagram they have a cross section of the playa without well data across Zones 12 and 11. Gantos stated they have not done one that far south because there are no wells. Allison asked if there were any plans to evaluate the Ogallala. Gantos stated they have received data from TNRCC. It is not DOE's responsibility but the Corps. They have closed Playa 4 at Risk Reduction 2. The Corp did test around playa 5. If they do not see surface contamination they see no reason to investigate further. Hastings agreed with Gantos that TNRCC does the same, if they do not see contamination on the ground or within the first few feet then they see no point of digging further down. Gantos added that they concentrate their efforts on where they know there is a problem.

UPDATE OF PANTEX PIT PACKAGING PROGRAM

Steve Hallett made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion Following Presentation

Martillotti asked if the estimated 5.5 years included new pits going into storage. Hallett stated they would continue to operate a packaging line that can handle 20-50 pits per month. That will give them the opportunity to deal with pits coming in. Allison asked if the sealed insert would qualify as a transportation container and why the shipping containers are in short supply. Hallett noted they have always managed so that they are not limited to a number of shipping containers. One of things DOE is looking at is purchasing additional containers, and putting them inside a shipping container. They will continue to use current shipping containers for the next several years. Allison noted it was said the industrial application of seals would last for several years; will radiation affect the seal? Hallett stated this was one of the reasons Mason & Hanger chose this seal because the seals have been used in nuclear power plants for years. They are most versatile and long lasting. If they had gone with a rubber seal they may have had to deal with RAD. Donelson asked if the ALR-8 was designed as a shipping container. Hallett noted it was originally designed for shipping but lost certification in 1990. The ALR-8A was not designed for shipping. DOE did an analysis and came up with two decisions, to over pack and ship as contents, and pack into a second pack. One option is that this container may pass as a shipping container.

Donelson noted the Board had already made a recommendation, but he still has questions that he will send to Hallett. Blankenship stated the Board did make a recommendation last April, but questions should be asked at each stage of this process. He asked if the pits are leaking into the helium, would there be a problem for the packaging. Hallett stated if a pit were to leak, it would be no better or worse once the container is opened because they still have to deal with particulate. White asked if they

were going to reuse gaskets. Hallett stated they were. Containers are for one time use, but they will need to replace the gasket. Boothe noted that Pantex does certify the purity of the gas. If there were a leaking pit, it would be of a smaller volume and it would be an improved process. Hallett noted that one of the processes that will be implemented is just to open the value and swab it. All that has to be done is replace the valve, and this decreases the problems.

Allison asked if once the containers are used and opened if they are reusable. Hallett stated they are, they only replace the copper seals and bolts. Allison asked if the safety analysis reports are based on the AT-400 being the container housing the pits. She also asked if these reports and analysis have to be redone because of changes. Hallett noted that most of the reports state long-term storage. Dennis Kelley noted that all the reports are based on ALR-8 Sitewide EIS and the evaluated potential of going to AT-400A. There was a supplement analysis of the sealed analysis for on-site storage and it showed no impact by going to interim storage. Allison asked if this was available to the Board. D. Kelley noted the report is in the reading room and DOE's home page.

Juba asked if they were going to use an inferior container. D. Kelley noted that there are bases other than cost for representation of the sealed inserts being inferior. Allison asked if they were able to successfully qualify for shipping. If not, would there be an increase in worker exposure? Hallett noted that if the AT-400 were used there would be more exposure due to the time the operator is exposed to the pit. Juba noted that worker exposed at Pantex should be considered in the creation of a new container to minimize exposure to workers. Hallett stated that one of the things they look at is minimizing exposure to workers. Johnson stated that in the Sitewide EIS, the AT-400 was referenced as being looked at for use. He does not believe that transportation was used in any of the analysis of sealed inserts because it is a separate issue. Boothe added the SI with an over pack would be similar. Donelson noted that worker exposure is a great concern. He asked if there would be more worker exposure if transportation were needed. Hallett stated the AT-400A is using an automatic line instead of manual. Hallett noted they deal with onsite worker and storage issues. They did look at sealed inserts when they have to repack with regards to onsite exposure. The department's original vision was an automated line, but that is in the future. They will still have higher exposure at the beginning.

Ex-OFFICIOS REPORTS

Governor's Office

Mulder stated the WIPP site is scheduled to open and take shipments. The State of Texas has an emergency program along the Texas route. They were notified two weeks ago that WIPP funding had been cut. He added that someone from the state would be attending the transportation seminar.

Allison asked what the WIPP was to be used for. Mulder stated the money was for emergency training. Allison asked if this is something that the Board may have a

recommendation about. Kunz suggested passing it to Program and Training. Juba stated he did not think the issue was within the Board's jurisdiction. Mulder noted this is the second time in 10 years Texas has lost funding. Texas signed off on letting I-20 be a shipping route, 680 miles through 22 counties. If they cut funding for this program, Texas is no longer committed to I-20 as a shipping route; therefore I-40 could become the route. Allison feels the Board should do something for their neighbors. Juba noted he did not have problem with it. Hallmark felt Health & Safety would be good to review this information. Blankenship agreed this would be appropriate.

TNRCC

Hess stated TNRCC had sampled the public water systems at Pantex on March 8. They also completed sampling production wells on March 9. They have not received the results yet. TNRCC completed sampling Cockrell's wells on the 10th of March and have not received those analysis results yet either. He has contacted the lab and it will be about ten more days before they receive that information. Kevin Rutledge and Kevin Starbuck from W. Kelley's office conducted the City of Amarillo Emergency Planning Exercises in response to a mock Pantex incident, the TNRCC Pantex team observed the exercises they seemed to go smoothly and appeared to be a success.

DOE

Johnson noted that for the third year in a row Pantex has received awards for waste prevention and for pollution prevention in community outreach. 25% of the awards given out were presented to Pantex.

Blankenship noted that in the 1997 and 1998 Albuquerque Office annual reports the regulators had approved only 21 sites. He questioned the disparity of voluntary preventative action. Johnson noted they are moving based on criteria and making certain interpretations. They have exchanged letters with TNRCC and done further investigation. There is a significant difference in the number they say are completed and TNRCC has signed off on. Hastings agreed there is a disparity on the numbers completed and what TNRCC has approved. This is because they are basically self-implementing. They can complete and implement those with our approval. Some are just awaiting review and approval from TNRCC. It is a corrective measure study. Allison asked if Hastings could provide a list of documents that they have yet to review. Hastings stated he would check but believes he can provide the information.

OCCURRENCE REPORTS

Scott Dolezal stated that of the eleven new notifications six of those have no adequate management system. Breeding asked about occurrence #11. Dolezal noted the source was a small flat disk that was sealed with cardboard. This source had come apart before and was in a zip lock bag. Breeding asked what the radiation type was for Beryllium 133. Dolezal noted he was not positive but would check. (Dolezal informed the office it was a gamma emitter.) J. Kelley stated there were three near miss events,

she asked if there were occurrence reports that deal with that. Dolezal stated the three events were a cell fire, water tower maintenance, and trailer ramps. Reportables were entered for all three events. J. Kelley noted there was an alcohol abuse incident again, she asked what the punishment was. Dolezal stated employees typically have a second or third "strike". On the third offense they are fired although Dolezal is not sure of the procedure. J. Kelley asked if the same rule applies to those with drug use. Dolezal stated it did. Allison asked what the contamination was on #14. Dolezal noted this report had been cancelled, he does not know the exact levels, but he stated it would not impact future plans. The contamination was tritium. Allison asked if these were Pantex workers, or subcontractors. Dolezal stated they were subcontractors. Allison asked if they were wearing dosimeters. Dolezal noted they were.

SUBCOMMITTEE/TASK FORCE REPORTS

Nominations

J. Kelley brought forth Billie Poteet's name for a second reading. Consensus was achieved. Poteet was invited to sit at the table.

Training & Program

Training and Program will meet April 1, at 2:00 p.m. at the office.

Policy & Personnel

Blankenship noted they are reviewing the bylaws dealing with membership issues. The committee does not have any proposals today, but they may have some at the next meeting. J. Kelley asked if the letter from Crosland gave guidelines regarding membership appointments. Johnson stated it does. DOE can assign up to five members to a Board. This is supposed to speed up the process of getting new members. J. Kelley asked how it is determined how many years members can participate when filling an unexpired term. Johnson noted this is mid-way through the first paragraph of the bylaws. He still thinks it is important for the Board to deal with membership, make-up and try to avoid what occurred last fall. J. Kelley asked if someone comes in halfway through a term how long he or she would be eligible for. Blankenship noted that was yet to be determined and it was also suggested that caucuses each pick their own members. Kunz stated that according to the letter if a member resigns, then it could be filled. Hallmark noted a meeting is scheduled for Thursday 2 p.m. Mulder thought this was done according to the state of Texas system where everyone served 2, 4 or 6 year terms. He thought that was what they were doing when it was set up. Blankenship noted this would be the case if they did not have resignations. Mulder noted that regardless of resignations, dates of terms should remain constant.

Community Outreach

Kelley went over the purpose of the committee according to the bylaws. The committee is making plans for the Tri-State fair. The committee suggested having a membership list as an insert in the brochure, so when membership changes the insert is the only thing changed. They would also like to include biographical information on the web page. Business cards for all members were also suggested.

A speaker's bureau was also discussed; members would discuss the Board as a neutral speaker. The committee will be participating at the Business connection by paying for the booth. The Board is getting complimentary tickets. If anyone is interested in attending, contact the office.

Donelson asked when the Board joined the Chamber of Commerce and when it was decided. Kelley noted it was last September. She added the purpose of the committee was to put forth the agenda of the Board. Allison noted there was not an actual decision by the Board to become a member. Johnson noted he would get an opinion from counsel regarding Board participation in the chamber.

Health & Safety

Blankenship noted the task force is setting up parameters. They will address worker health hazards, transportation workshop and health and safety aspects.

Juba noted he would hate to base anything on the USA Today article. Blankenship noted that aside from privacy issues, he would like people on the task force to decide what is true and what is bogus. If it can provide more evidence than emotion, then he would like to investigate it further. Hess noted that some additional information or research should be done on basic water quality. Not based on contaminates, but quality.

Environmental Restoration

Environmental Restoration will meet within the next few weeks.

Closing Remarks

Allison stated the AT-400A was an admirable project. DOE has tried to find a safe way to store pits in an inherently bad situation. She is not in disfavor of it. Juba agreed. They need to get them in a better package, if they can do it cheaper or faster he is in favor of it.

Kunz invited the public to make comments.

Kunz adjourned the meeting at 5:03 p.m.

PANTEX PLANT CITZENS' ADVISORY BOARD
806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
FINAL
FIFTY-FOURTH MEETING

Tuesday, April 27, 1999
2:30 p.m. – 4:50 p.m.
Amarillo College, Exhibits Hall
Amarillo, Texas

INTRODUCTION

The fifty-fourth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, April 27, 1999 at the Amarillo College Exhibit Hall, Amarillo, Texas. The meeting began at 2:30 p.m. and adjourned at 4:50 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports

PPCAB Members in Attendance: John Blakley, Sidney Blankenship, Paula Breeding, Nathaniel Cantly, Rusty Donelson, Bob Juba, Janette Kelley, Walt Kelley, Denise Price, K. R. Ramakrishnan, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Pam Allison, Galen Boothe, and Billie Poteet.

Ex-Officio Members in Attendance: David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control; and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: John Bernier, DOE; Thomas Edwards, Attorney General's Office; and Rafael Casanova, EPA.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, Tony Biggs, Tom Castleman, Jay Childress, Janice Clark, Lee Cockrell, Cheryle Cooper, Timothy Dwyer, Richard Edmondson, Mike Gardener, Deborah Griswold, Tom Jones, Richard Lee, Joe Lockwood, Dick Moos, Vaughn Nelson, Jeri Osborne, and Harish Sharma.

WELCOME/MINUTES

Kunz welcomed everyone to the meeting and reviewed the agenda. Review of minutes was delayed until a quorum was reached. Kunz reminded everyone that changes to March minutes must be turned into the office by May 6. November minutes were approved by consensus with one change by Breeding. Juba suggested just taking action minutes. Breeding stated she would be against it if the Board does not have actual extensive minutes. Juba withdrew the recommendation. Blankenship was under the impression that FACA requires a deposit of the minutes in the reading room within 30 days. He would be satisfied with more concise minutes, but because the Board does not have that many recommendations this is the only way to document what is occurring. The February minutes were approved by consensus with no changes. Cockrell provided changes to the March minutes, which will be included in May's packets.

CO-CHAIR COMMENTS

Blankenship stated he had recently received a copy of the DOE Commercial Disposal Policy Analysis for Low-Level and Mixed Low-Level Wastes that relates to the Board's recommendation of not sending waste to unlicensed disposal sites. The Department has decided to retain its ability to dispose at DOE sites and the current policy for limited commercial disposal. If anyone would like to review the document, let him know.

Prior to the EM-SSAB Chairs meeting in February, Blankenship had previously contacted Fred Butterfield and Martha Crosland about the possibility of the PPCAB hosting the SSAB Chairs meeting here in Amarillo. He would like to extend an invitation for the year 2000 if the Board would be interested. J. Kelley noted that Crosland had never been to Pantex and would like to visit. Ramakrishnan asked if Blankenship wanted the Board to make a decision. Blankenship stated there was no immediate urgency if the Board wished time to consider it. J. Kelley noted that quite a bit of preparation would be involved. Kunz asked if members would like to send comments to the Co-Chairs. W. Kelley asked for a vote now since it would not cost anything or take any time. Kunz asked for a vote and consensus was given to extend an invitation for the SSAB Chairs meeting to be held in Amarillo in the fall of 2000.

EX-OFFICIOS REPORTS

EPA

Casanova was unable to attend but sent in a report, which Kunz read. Informational meetings will be held on May 20, 1999, at the Radisson (near the airport). There will be

two sessions, one from 11:30 a.m. – 1:00 p.m. and the other from 6:30 p.m. – 8:30 p.m. The purpose of the meeting is to inform the public (and answer questions) about EPA's deferral criteria, the NPL deletion process, TNRCC's RCRA permit/compliance plan, and DOE's petition to delete the site based on deferral.

Governor's Office

Mulder stated they did get WIPP funding for a 60-90 day extension. He added that Denise Brooks from his office would be attending the Transportation Seminar in Cincinnati.

TNRCC

Hastings stated that the TNRCC along with EPA would be sponsoring an informational open house concerning the DOE's petition to the EPA for deletion of the site from the National Priorities List (NPL). They will be present to provide information and to answer any questions about the process.

Hess stated TNRCC has started the second quarter ground water monitoring. Today was the first day of sampling due to the rain. Hess has received all the ground water monitoring results for the first quarter and is compiling the quarterly report. He has some adjustments to make, but he should have the results at the next PPCAB meeting.

Department of Health

Martillotti stated that emergency exercises occurred in the last two weeks in Texas. The exercise went fairly well and had good representation. There were some interface problems between State and DOE people, the information flow was reasonably good, and the DOE contamination control procedures meshed with the State's. He noted that this was the first time the exercise was held with the State Radiological office. Both teams learned good lessons with the help of the critics. DOE-Albuquerque plans to provide a video to the State, if they do he will try to provide a copy to the Board.

DOE

Johnson stated they have obtained landowner signatures for property access. This access procedure will include borings. He added that DOE conducted a presentation for the Environmental Restoration task force.

Campbell stated the access agreement contacts would not have been signed without Lee Cockrell's assistance. There will be eight test borings done on Richard Crawford's property, three test borings will be done on Cockrell's land and three on Buddy Vance's land. The reason for the borings is to see what is already there. They will be starting as soon as the ground dries. Blankenship asked if the contracts are annual. Campbell stated the contracts start now and run through August 26. Once monitoring is

completed it will go quarterly, and then it will depend on what is found. Subsequent agreements could go up to five years.

Cockrell stated he signed his contract December 7, 1998. It expires May 31, 1999. On December 9 he signed a second contract with revisions, this was a six-month contract. The contract negotiated with Buddy Vance was done over a four-month period with Bruce Campbell. That contract expires August 26, 1999, and Richard Crawford's contract expires in July. Robert Musick from TNRCC arrived on Thursday, after which one person withdrew from the contract. Cockrell noted that borings take over a third of the cropland. Landowners get $2,500 for oil wells, but he settled with Campbell on $900. All he has asked for is reimbursement for damages to the land. The contracts are to drill test wells in May, June, and July. Richard Lee and Campbell wanted to negotiate contracts on the monitoring wells. The public was invited for comments.

OCCURRENCE REPORTS

Dolezal stated that eight of the occurrences involved procedure not being followed. There were four unusuals out of the ten new occurrence reports. Ramakrishnan asked if the unusuals are more than average. Dolezal noted they were pretty high. Ramakrishnan asked if there was a reason for that. Dolezal stated it was probably more bad luck than anything was, but it does need to be looked into. J. Kelley asked who decides what is unusual. Dolezal noted that when an occurrence happens there is a critic of the event. Martillotti added it is the criteria of the DOE and facility representative.

Blankenship asked about the vacuum cleaner and the tritium (occurrence #20), he is concerned with the subcontractors, and if they are fully apprised of what is going on there. Dolezal stated that subcontractors need a radiation permit for that job. They have job specific training for the job. Zerm added he attended the critique on that. He stated it was a brand new vacuum cleaner that broke down, the subcontractor out of frustration threw it in the back of his truck in order to take it back to Sears to get a new one. Breeding asked if more or longer training would help. Dolezal noted it is probably not the big culprit. During the review of the integrated plant safety management, a task group is looking into procedure enhancement, but it may be awhile before they get feedback from them. There are so many procedures that not everyone knows all of them.

Juba asked about occurrence #26. He had talked with some people at the plant, and asked if Dolezal could elaborate on the incident. Dolezal stated the PTs tried to do a test at the wrong time. They got faulty readings because the test was not done at the right time. Tests cannot be done without the manager being there. Juba noted it sounded like this was one of those too many rules and safety procedures. He asked if there is a way to improve safety by clustering steps of work or doing something for the workers who are getting conflicting messages, perhaps another prescribed method where the rules do not conflict. Dolezal stated the procedures the PTs work from could not be any simpler. It is on the top of the list of priorities, the procedure was

inexcusable. J. Kelley suggested the possibility of a checklist they could check off. Dolezal noted that another piece of weaponry already has this and they have tried to take this into account. W. Kelley asked just how unsafe this procedure was, because it bothered enough people that there was a problem. Why were people so concerned? Dolezal stated there was not any great risk, but part of the way the program is structured is to avoid inadvertent acts. When the tester is hooked up it stops this.

Blankenship noted that two of the reports had to do with the movement of high explosives #0017. He asked what does this signify, what does the level 1.4S mean, and also was there a current tracking center for the movement of explosives. Dolezal stated that a 1.1 is mass detonating, 1.3 is mass fire, and does not detonate. 1.4 is self-contained, and S is the least hazardous. 1.4 is like a small firecracker, if detonated it would not be noticed from outside the pack. When they started becoming more concerned with the tracking movement they were not tracking 1.4, but they were finding that 1.4 explosives were ending up in buildings they were not suppose to be in. This event was unique. The person who initiated the paperwork was not on site, and the person who moved it was not aware of the regulations in process. A better segregation of boxes is now in place.

Martillotti stated that #001 was a near miss involving a radioactive source. It said it was sufficient, but the word "not" was missing which changes the meaning of the sentence.

Zerm said in relation to the W87 occurrence report that he investigated this occurrence in detail and there was absolutely no way any action could be initiated. The best allegory Zerm could put forth was to having one's car being monitored through a "sun machine". This machine monitors one's automobile's circuits to check on their integrity.

UPDATES

Johnson stated that during a background survey Zone 12 south and Zone 4 had not been flown. He sent a letter to the Board about having it re-flown. There was discussion of having an over flight done before the next cycle, but they decided to wait.

Johnson noted there was discussion of attending a Hanford board meeting and if members are still interested please contact the office. He visited with attorneys about the Chamber of Commerce membership and it was decided it was not appropriate for the PPCAB to be a member. J. Kelley noted that because of the feelings of some of the members the Board would not participate in their May program.

Johnson stated that Steve Goodrum was to attend this meeting, but was unable due to his knee. Campbell added that Hanford would be sponsoring the Co-Chair meeting in the fall. Blankenship stated that Al Young gave a presentation on risk profiles in February. He received a letter stating Johnson had Pantex's risk profile. Debra Griswold, the Environment Restoration Program team leader stated she had been working with Young, and the profile drafts are out. The report will include coordinating with stakeholders, and will be a representation of information. It will become a national

document, or work in progress. Comments will still be welcomed, this is not a decision-making document, and is on a very summary level.

Addendum to March 1998 minutes

Kunz noted the addendum was due to a few words being left off the line. Blankenship stated that when this statement was made for the recommendation it was sent in. The addendum does not represent what was in the minutes, which were subsequently approved by consensus of the Board. He does not think the Board can add this to the minutes because it does not reflect the wording sent in the recommendation to Secretary Pena dated April 7, 1998. Zerm stated he understood they were talking about all the pits at the site. At the time of the presentation there was talk about storing 2400 pits a year. Belisle stated she did not know what letter was sent to headquarters, but she blocked consensus in reference to all the pits, and stood aside on the statement if it referred to pits in disposition. She talked to Hallmark and he remembered writing the exception on the overhead, if it was sent to DOE, it was not what the Board approved by consensus. Price asked where the addendum came from. Lopez stated it came from Belisle. Price noted the minutes are reviewed consistently and would be opposed to changing the minutes. W. Kelley stated that if they have a set of approved minutes that say one thing and are wrong the Board should address the issue again, not change the minutes.

Blankenship stated the Board couldn't change the letter sent to DOE, he is willing to open up the Nuclear Materials task force to review this if the Board feels they wish to do so. Zerm reiterated that from his point of view the Board was talking about all the pits. If the Board were just talking about certain selected pits then the workforce would end up having a higher exposure rate. The recommendation sent was correct because it did not discriminate between what is stored and what is not stored. Juba stated his understanding was they were talking about pits in general. In his mind they should all be in the safest storage. It's more important to have enhanced capabilities for storage. Martillotti noted he was watching this issue very closely and he understood they were talking about all the pits. He asked what the significance of this was now. Belisle stated that at the time this was being presented, pits were slated for disposition. These pits will not exist in 25 years. The document for strategic reserve pits assumes a life of 50 years. They were talking about a 20-year certification time limit, at the last meeting they heard it was 30 years. Pits are put in certified packaging for 50 years in a container that lasts 20 years, they will have to be repackaged, that is why this distinction was made. Martillotti noted that the only one that had a 20-year life was the knife edge seal. At the time this was the limitation on the copper gasket. That was his understanding of this process. The lid could be removed and the gasket replaced possibly by remote control. Zerm added that to keep exposure rates down, bore scopes could be used to view the pit through an accessible port. W. Kelley stated the issue is whether to amend the minutes. If the Board wants to discuss this it should be an assigned issue for a task force. Blankenship stated he would like to hold a task force meeting, and it would be worth consideration to review pits and the kinds of exposure warranted for

transportation and compliance with long-term storage, but the minutes would not be amended.

TASK FORCE/SUBCOMMITTEE REPORTS

Policy & Personnel

Blankenship stated Policy and Personnel had met twice to review the various approaches to membership continuity and new members. Kunz asked for consensus on all recommendations. Juba suggested adding "other" to III.B.3. Blankenship stated it was already in the bylaws under stakeholder vacancies that consensus may not be broken by a member under review. Price stated she believed it should be "member under consideration should not be able to block consensus". Juba suggested the statement "the board member under review is ineligible to block a consensus vote on his or her membership renewal." He also did not agree with III.B.2. He would not want to bring them back. W. Kelley stated the bylaws do not state you cannot serve after three terms. Juba noted that with the consensus arrangement he does not believe that after six years on the Board, someone should be eligible. The Board should just thank him or her and move on with a new member. W. Kelley stated if a person wants to get back on the Board, it only takes one person to block his membership at a later date. J. Kelley noted if anyone wants to come back after six years and staying out one they still have to go through process. Juba withdrew his block. Kunz called for a consensus with the addition to III.B.3. The Board approved the changes by consensus.

Health & Safety

Blankenship stated the task force met last week. The discussion was an extension of what was done previously. The task force would like to bring presenters that reflect concerns of health and safety. They would like to approach Program and Training for a presenter. The presenter could be someone from Pantex that could present an overview of the site. He would like to know more about exposure to beryllium. Martillotti stated that DOE worker health preparers have suggested they could make a presentation to the Board. Mortality report preparers have also noted they could make a presentation to the Board. Blankenship would also like to bring someone in to the task force, such as Dolezal, to coordinate the occurrence reports.

W. Kelley stated that concerning Donelson's questions there would be an emergency management session in June.

Donelson asked if Nominations would be having a meeting. Juba stated Zerm is working on getting minority applicants, and they have talked about having a Nominations meeting soon.

PUBLIC COMMENTS

Cockrell stated the advisory board mandate wants accurate minutes. He asked Mulder if the Board received $300,000 in allocated funds. Mulder stated he believed $350,000 was allocated, but local funds are significantly less. Cockrell stated the Board should at least act to hear the grievance of the area citizens and landowners. He noted that out of the 14 people east of Pantex only three people had been contacted. He would like the Board to address why there is no one from Carson County on the Board. There are many people from Panhandle who can serve on the Board. J. Kelley stated they have two Board members who live in Panhandle, Billie Poteet and Galen Boothe.

CLOSING REMARKS

W. Kelley asked that meetings be kept on the Friday fax until the week of the meeting. Kunz summarized the meeting and congratulated the Board on the passage of the bylaw changes. She reminded everyone to submit March minute changes to the office by May 6.

Kunz adjourned the meeting at 4:50 p.m.

PANTEX PLANT CITZENS' ADVISORY BOARD

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Meeting Summary
Draft
FIFTY-FIFTH MEETING

Tuesday, May 25, 1999
10:15 a.m. – 2:39 p.m.
Amarillo Senior Citizens' Association
Amarillo, Texas

INTRODUCTION

The fifty-fifth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, May 25, 1999 at the Amarillo Senior Citizens' Association, Amarillo, Texas. The meeting began at 10:15 a.m. and adjourned at 2:39 p.m. Due to the lack of a quorum the meeting was informational only. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Emergency Management Presentation

PPCAB Members in Attendance: Pam Allison, John Blakley, Sidney Blankenship, Galen Boothe, Paula Breeding, Rusty Donelson, Walt Kelley, Billie Poteet, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Nathaniel Cantly, Bob Juba, Janette Kelley, Denise Price, and K. R. Ramakrishnan.

Ex-Officio Members in Attendance: Liz Bills for Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Jerry S. Johnson, DOE; and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: John Bernier, DOE; Rafael Casanova, EPA; Shawn Hess, TNRCC and Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. James Hallmark, WTAMU.

Observers: Mavis Belisle, Tom Castleman, Richard Edmondson, and Don Moniak.

WELCOME/MINUTES

Hallmark welcomed everyone, and reviewed the agenda. March minutes were reviewed and changes by Allison were made. March minutes were not approved. Hallmark reminded everyone that changes to March and April minutes must be turned into the office by June 9.

CO-CHAIR COMMENTS

Blankenship praised the openness of the Clinton administration. He then referred to the supplement to the draft Surplus Plutonium Disposition EIS on page nine where pit repackaging exposure rates are mentioned in view of the sealed-inserts. He suggested the Board might want to review this. In last month's minutes he made the statement that Board minutes had to be in the reading room within 30 days. This statement was incorrect. FACA asks for comprehensive minutes, but there is no time limit.

Blankenship noted the balance of the Board is in need of corrections, it was suggested that the Nominations committee could meet during lunch. Several people have asked that Nominations come forward with a nominee.

Blankenship stated it is now May and the Board has not come up with any recommendations. Martillotti sent the ATSDR report to him and comments are due by the end of June. He suggested the Board review this report.

Zerm stated that in relation to openness in the O'Leary administration, his concern is in dealing with weapons system and the people who do not have the same concerns as the United States. He agrees the public needs ample information on environmental issues, but not the weapons system. He added that the executive order that any classified document over 25 years old would be open was suspended. Zerm suggested the Board discuss this for a possible recommendation.

Zerm added a commitment had been made to get more minorities and women on the Board. The Nominations committee has been working on this with brochures and applications sent out to LULAC, the Hispanic Chamber of Commerce and NAACP.

Booth stated the Board had not authorized the taping of meetings, and noted an audience member was taping the proceedings. Hallmark noted that it is the right of a member of the public to record the meeting without obtrusive lighting. Zerm noted that when Belisle was on the Board that they had requested meetings not be recorded. Allison stated it is a public meeting, and other persons have taped and recorded the meetings so there is precedence. She noted that the Bylaws address the Board's activities, but not the public's. Blakley stated he saw this as circumventing the bylaws,

and until the Board could get clarification he did not see how the meeting could proceed. He asked if Board members could be held liable if the meetings were taped. Walton stated the accepted standards of public meetings are they have no control over what the public does. The bylaws affect official recordings of the meetings, as far as the public taping it would be stepping beyond the bounds of the Board, as long as it is not disruptive to the flow of meetings. Blankenship stated that Bylaw 9B5 restricts the public from using cell phones, etc. He is not aware of any other tapings in the past, but suggested continuing the meeting and tending to business, if the taping proves disruptive then appropriate action may be taken.

Zerm objected to the taping and left the proceedings. Hallmark noted the Board no longer had a quorum, therefore the meeting would proceed as an informational process. Blankenship stated the ex-officios would not be required to stay for the meeting, but it has been requested that W. Kelley continue with the afternoon presentation. Mulder agreed it was a public meeting, and the public has the right to participate, but asked what happens if another individual in the public does not wish to be recorded. Blankenship noted it would be outside the Board's jurisdiction unless it became disruptive. He added that if the Board meetings are taped and then taken out of context the Board may want to consider recording their own meetings as a way to protect themselves.

Hallmark stated the Board has no jurisdiction over the public, therefore members must decide if they want to speak or even be at the table. Walton noted that case law states if in a public forum there is no recourse for taping by a public member unless it is used for commercial purposes or to defame a person. Blakley recommended adjusting the agenda to hear W. Kelley's presentation and adjourn the meeting since there is no quorum.

W. Kelley stated he had no problems with taping the meetings. He is used to being taped, and is familiar with what can happen if taken out of context. Since this is a public meeting the Board needs to go ahead and tape them. He noted the Board members need some answers from the State and DOE, he thinks the Board needs to be educated on liabilities for Board members. Everyone fears being sued but members may be protected. If members can be sued, then perhaps they may want to leave the Board, or get insurance for Board members. The Board may want to have a defender for members since they do not know what the liabilities truly are. Johnson stated they do not need input from the State of Texas since they are represented as an ex-officio member. The best thing is for this board to provide input with respect to activities ongoing at Pantex. He believes as long as the Board's remarks are tailored to ongoing activities and making recommendations, then he does not see how anyone can be held liable. Johnson added that liabilities occur when personal attacks or remarks are made. He recognizes that everyone has opinions and feels certain ways about what is occurring at Pantex, as long as it takes a consensus and business is being conducted members should be all right.

Hallmark asked if it would be appropriate for the June presentation to be on Board liabilities. Walton stated they could have someone from the legal department that could come out and make a presentation. W. Kelley stated the problem is not necessarily the concerns and fears of making recommendations, but what is occurring internally on the Board. Blankenship noted the bylaws put the Board under federal jurisdiction, but as a Board it is really functional. He did not know what would make members liable as a Board. He recommended this be presented to the Board for informational sake, and members may want to be educated as to the ramifications. Boothe stated he would like taping of the meetings to be put on the June agenda. If the Board is going to allow videotaping by the public, then he suggested having the Board record the meetings to limit liability. Allison noted she agreed with what the others were saying but she would also like a presentation on something substantive at the June meeting.

Johnson suggested that prior to proposing nominees to the full Board, the chairs meet with individuals, that way if there are concerns they can be worked out before the names are presented formally to the full Board. If their opinion changes between the meetings members can state they have a concern with a person on the slate, then nominations could go into session immediately. The Board needs to be mindful of sensitive issues.

Blakley reiterated he had made a recommendation to do the presentation then adjourn. Hallmark asked for comments on the recommendation. Moniak asked that the Board continue the meeting. Hallmark noted the recommendation was to skip to the presentation. Blankenship disagreed. He would like to continue the agenda for informational purposes only. It was decided to continue with the agenda.

TRANSPORATION SEMINAR UPDATE

Blankenship stated the transportation seminar took place over May 20-23. Himself, John Blakley, Dr. Ramakrishnan, Nathaniel Cantly, Denise Brooks, Laura Pendlebury and Becky Lopez attended it. Participants took a tour of Fernald on Friday morning, then spent the rest of the time developing transportation recommendations. He noted that Fernald is set for closure and has a dedicated train for transport to Utah. They have a very shallow water table, and use the pump and treat method for remediation of uranium contamination. They also have onsite disposal and lots of waste shipments. Participants focused on issues relating to all the sites. He participated on the routing, mode and cost group. He did not discover any significant routing through here by DOE at present. Blankenship noted that individuals signed the statements not as representatives of their Boards. Therefore they are not endorsed by the PPCAB. They are of a programmatic point of view. There was reluctance to give consideration of packaging and shipping of plutonium pits, so they were generally left out as transportation issues.

Blakley stated he found the workshop interesting. There was a presentation on the long shipping process from one point to another. It showed how cumbersome the process was. He could see that the crowd thought it was cumbersome, but they added

recommendations to it. It seems people also complained about the cost, but continue to make it more laborious. Transportation needs to be dealt with as quickly as possible. Disposition is safer then letting barrels sit outside waiting for shipment. He thinks DOE could do a better job of explaining the risks of transportation to the public.

Mulder stated that Denise Brooks attended from his office. As of today some shipments will be going through I-20 and I-10. He does believe some shipments are currently going on I-40 through Amarillo to the Nevada Test Site. The State does have a program for training local responders. He added there is a problem in educating the public with these issues. In the history of the U.S. there has never been one incident of a person dying from exposure due to an accident involving radioactive materials.

White stated he had a letter to the editor from a publication he circulated for those interested. Boothe stated that based on Mulder's comment on the response and education of low level waste by the DOE, it seems the states are doing well training people to respond to accidents. W. Kelley added that radiological training is big in Texas. He stated that at one time I-40 was going to be a route, and radiological concerns would be on the lower end of a response. The threats are there but the advantage is all the training received because of DOE and their radiological concerns. It takes training to respond to incidents and they do not want to do away with the training.

EX-OFFICIO REPORTS

TNRCC

Hastings stated that the TNRCC and EPA held a joint public meeting on May 20 to provide information concerning DOE's petition for deletion from the National Priorities List. The EPA is responsible for making a determination on the petition. The TNRCC will concur or will not concur with that decision. The TNRCC's role will remain the same regardless of the decision. DOE is required by their RCRA permit to cleanup the site. The TNRCC is currently reviewing documents related to the site cleanup and ground water issues.

Governor's Office

Mulder stated the PEIS database handout was on the table. Vanessa Gonzales from his office will be attending the PEIS meeting. He noted that Pantex and the PPCAB might be interested in seeing if any of that money is going to Pantex. Blankenship stated he was under the impression that the money would not go to the sites, but to the members who were involved in the suit. Moniak noted the Boards do not receive money, but they can solicit input on what is on the database. The database is a major part of the settlement. Mulder stated he did not mean the Board would get money, but that the Pantex program might get some. Blankenship asked if there was any sort of draft or any way of knowing what is going to be in the database. Mulder suggested coordinating with those entities that might have concerns with what is in it.

DOE

Walton stated that in the past members had asked about a tour of the site. He has received a list of members wanting to take the tour, it is a more complete tour then what the public gets. If any other members would like to participate, they should let him know. He will work with the office to firm up a date.

Johnson reported they had begun borings on Cockrell's land. They have three investigative borings on five feet of saturated zone, a quick detect test was used and it detected high explosives, the other two were dry. All three will be plugged. They will brief TNRCC on that. Moniak asked if "plugged," means a temporary covering so they can go back and put in monitoring wells. Johnson stated they were capped after they collected data and designed a remediation plan off-site. Moniak asked if it is contaminated if the people east and northeast are affected. Johnson stated they will contact affected landowners with the data. White asked about the wells being capped. Johnson noted they are capped according to the Texas administrative code.

SUBCOMMITTE/TASK FORCE REPORTS

Health & Safety

Blankenship stated that Martillotti had forwarded the Public Health Activities Site Plan for Pantex to him. The Health and Safety task force will try to deal with this and they may try to make recommendations at the next meeting. At the last meeting they dealt with the transportation workshop and health studies. The report reflects some suggestions that there are gaps in knowledge. It has come up with suggestions for future studies. He asked what kind of follow-up the Board wanted. The current studies are being conducted at the 12 sites. If the Board requested DOE to follow up on this they would be willing to do so.

Budget & Finance

Blakley stated the Budget and Finance committee met last week as tasked, to evaluate the office manger's performance and make a recommendation on a wage increase. The committee met, discussed and passed their recommendation on to WT. The committee had a limited amount of time to do this because the university's budget deadline was May 15. WT will make the ultimate decision on the administrator's salary.

Environmental Restoration

Allison stated the task force had met twice, once last month and then again this month. At the first meeting there were several people from the public present, and there was only one at the last. She asked if anyone had any suggestions to increase public participation. Hallmark suggested the community calendar in the newspaper advising of public meetings. Blankenship stated it would be better if the public knew what was going to be discussed at the meeting, but did not know if this would help. Allison

suggested sending out post cards to the office's mailing list. Johnson suggested they not limit it to just the mailing list, but have a public notice. Allison noted it might be useful to do both. Johnson added he would follow up to see if it needed to be included on the federal notice. W. Kelley suggested having the office administrator research the information, the Board may be want to put a quarter frame ad in the newspaper. Hallmark suggested this could be something Community Outreach may want to do.

Community Outreach

White wanted to let everyone know that they have volunteered Board members to speak at public meetings. The Tri-State fair is coming up and they will need volunteers to man the booth.

Policy & Personnel

Blankenship wanted to remind everyone of the need for a second reading of the new bylaw changes. He noted the committee might have to look at Nominations for changes.

OCCURRENCE REPORTS

Dolezal stated there were twelve occurrences this month. Mason & Hanger is in the process of answering a defense board issue as to why some of these things are occurring.

On #27 Breeding asked if the W76 was incorrectly processed because it looked like something else. Dolezal stated there was no difference in the part. They just need to look at the part. The procedure step that identified what they needed to do was in a note, not written as a procedural step.

It was noted that #28 had happened before. it was asked if this was an outside contractor. Dolezal stated it was a labeling discrepancy. They have the breakers labeled in the breaker panel.

Moniak asked about the Tritium vacuum cleaner, and if this was approved equipment. Dolezal noted it was a brand new cleaner and it died right away. It was approved for what they were going to do.

Moniak asked about the tornado doors on Bldg. 12-66, and how long they have needed to be repaired. Dolezal stated it was 6-8 inches thick, buttons operate the doors and the operating button and rope cannot be used at the same time. They have repair problems with these doors. The stage secondaries on 12-66 in Stage B are approved containers. The tornado doors are not required to stay stationary. Moniak asked how long items had been staged there and at what point does staging become storing. Johnson noted this was a policy question and Dolezal could not reply. Walton added that stored on an

interim basis means a formal decision has been made on where these will be stored, until then it is interim storing or staging. Dolezal noted staging started in May of 96.

Moniak asked why the occurrence report on #37 is sparse. Dolezal stated it involved sensitive materials, the concern at Oak Ridge is not of concern here. Dolezal noted that what is done at Pantex does not create a concern at Oak Ridge. Moniak asked if they had resolved the issue on tork. He asked if there is strategic reserve or are they surplus. Dolezal believed it was both and involves 56-70s.

EMERGENCY MANAGEMENT PRESENTATION

Walt Kelley made the presentation. A complete copy of the presentation is available in the PPCAB office.

Discussion following presentation

Donelson noted that those in the ten-mile emergency zone need to go to the fairgrounds, he asked if the Clements Unit is included in that. W. Kelley stated they would go into lock up and monitors would be sent out there. Donelson stated that the Clements Unit has about 4,000 including employees. The employees can leave and go to the emergency zone. He asked if the prisoners had been told that in case of a situation, they cannot leave. W. Kelley stated the Clements managers have been told, but what their procedure is he does not know. W. Kelley stated they have done their job by informing management at the prison. They have to leave a lot of what they do to the guards' discretion. Mulder noted they have gone through the procedures, and they will be handled just the same as in a tornado. Donelson asked if each and every inmate had been instructed that they are in the emergency zone, and have they been informed of the risk and that they cannot leave. He asked if they know the risk of being in that specific prison. Mulder stated he did not believe each individual had been given a list of potential risks they would come up against. Donelson noted this particular risk is unique to these two prisons. Booth agreed there is not another Pantex near the other prisons, but there are chemical plants close by to other prisons. If prisoners are going to be informed as to the risk of the surrounding areas, then they need to be informed about all risks at all prisons.

Blankenship asked if funds for emergency planning at Pantex were tied to the expiration of the AIP in August 2000. W. Kelley stated the AIP expires at the end of fiscal year 2000. Blankenship asked about the 100-year flood plain. Johnson noted that with respect to the Texas administrative code, the waste treatment plant must be placed above the 100-year plain.

Donelson asked what the plan with Highland School Park was. W. Kelley noted they have a warning bell inside the school, and sirens outside the school and the football field. He added that a specific exercise with Highland Park has not been conducted recently, but they are coordinating one with them. Donelson asked if they keep buses at hand to evacuate the children and teachers and bring them into the fairgrounds. W.

Kelley stated they are to use the buses on hand and teachers' vehicles to bring everyone to the center. They will also dispatch city buses to go pick them up.

Donelson asked how orderly the evacuation would be at the meat packing plant. W. Kelley stated it would be disorderly. Everything to do in case of an emergency has been posted in five different languages. They can just hope the public will take the steps they are supposed to. Donelson noted they might have a situation with city buses deployed to pick up children, mothers picking up children and IBP trying to come in to town. W. Kelley stated it would be a problem that will have to be dealt with after the fact.

Donelson asked what kind of training had been set up with IBP employees. W. Kelley stated he was not aware of any. Donelson asked if they were aware of the reception area, escape routes etc. and had been tested. W. Kelly stated they probably were not. It is up to the government to inform the management about the situations, they cannot go in and test them. Donelson asked if Kelley would like to see them trained. W. Kelley stated he would and that five years ago they spent $9,000 to train citizens of what to do in case of an emergency. They had one person attend the first program, two at the second and one at the third. Donelson noted that people tend not to take advantage of protection for themselves. It would be a nonstop job to make sure that everyone knows what to do and how. W. Kelley stated they have done everything possible, but if workers are not informed there may be regulatory programs that can be addressed. Allison asked what would happen if employees go home instead of the reception center. Kelley stated that if contamination is a problem then they will attempt to have management establish in place sheltering, but the contamination will be on cars also. They may not go home, or to the reception center but probably to area hospitals. Once word is out, they cannot wait to put everything in place then warn the public, they need to warn the public first.

Blankenship stated W. Kelley had mentioned funding a study of the emergency preparedness zone. He asked what would be studied, what did they hope to find, and where would the funding come from. Kelley noted the survey would answer Donelson's questions, things like; do they know what to do, where to go, are they getting the information needed, monitors, etc. If PPCAB, as an unbiased organization, funded a study by college graduate students it may provide more information. They have distributed 500 videos, but he does not know if anyone has seen them. Moniak asked where Randall county fit in this. Kelley noted it falls under his jurisdiction. Moniak asked what would happen if the winds came hard from the northwest. Kelley noted he had been led to believe that there was no danger outside the 10-mile EPZ.

Moniak asked for Kelley's general impression of the highest credible IBP accident. W. Kelley noted it was an ammonium release. Moniak asked how high that was. W. Kelley stated it was so significant that the school will be warned by IBP. He added that on June 21 IBP would provide documentation for this information.

PANTEX PLANT CITZENS' ADVISORY BOARD

806/373-3311 (phone) 806/372-3999 (fax)

Meeting Summary
Draft
FIFTY-SIXTH MEETING

Tuesday, June 22, 1999
1:30 p.m. – 4:55 p.m.
Amarillo Association of Realtors
Amarillo, Texas

INTRODUCTION

The fifty-sixth meeting of the Pantex Plant Citizens' Advisory Board (PPCAB) was held on Tuesday, June 22, 1999 at the Amarillo Association of Realtors, Amarillo, Texas. The meeting began at 1:30 p.m. and adjourned at 4:55 p.m. The agenda included the following:

- Subcommittee Reports
- Ex-Officio Reports
- Occurrence Reports
- Board Liabilities Presentation

PPCAB Members in Attendance: Pam Allison, John Blakley, Sidney Blankenship, Galen Boothe, Nathaniel Cantly, Rusty Donelson, Janette Kelley, Walt Kelley, Billie Poteet, Frank White and Ron Zerm.

PPCAB Members not in Attendance: Paula Breeding, Bob Juba, Denise Price, and K. R. Ramakrishnan.

Ex-Officio Members in Attendance: John Bernier, DOE; Rafael Casanova, EPA; Thomas Edwards, Attorney General's Office; David Hastings, TNRCC; Shawn Hess, TNRCC; Jerry S. Johnson, DOE; Joseph Martillotti, Texas Department of Health, Bureau of Radiation Control and Roger Mulder, Office of the Governor.

Ex-Officio Members not in Attendance: none.

Resource People in Attendance: Becky Lopez, Office Administrator and R. Bruce Campbell, Mason and Hanger Corporation.

Meeting Facilitator: Dr. Jenifer Kunz, WTAMU.

Observers: Mavis Belisle, Willie Beverly, Tom Castleman, Alan Dutton, Timothy Dwyer, Mike Gardipe and Don Moniak.

WELCOME/MINUTES

Kunz welcomed everyone, and reviewed the agenda. March minutes were reviewed and approved by consensus. April minutes were reviewed and approved by consensus. Kunz reminded everyone that changes to May minutes must be turned into the office by July 7. W. Kelley requested a change in the agenda while there was a quorum. The agenda was changed by consensus.

SUBCOMMITTEE/TASK FORCE REPORTS

Nominations

Zerm stated the committee interviewed Osborne & Villanueva last week and Cruz-Perez and Phillips were interviewed Tuesday morning prior to the Board meeting. Zerm presented a slate of all four names to the Board for a first reading. Kunz asked for comments. No comments were given. She asked for consensus of the slate of four. Consensus was given for the first reading. Blankenship congratulated the committee for their work in bringing forth the slate.

Policy & Personnel

Blankenship stated this was the second reading of the by-law changes. He asked for comments or questions in relation to the changes. Referring to Juba's previous comment of members serving no more than three terms he feels the spirit of the term change is reflected in the writing. He added that there is a turnover of 1/3 but it is due to resignations. J. Kelley questioned if the issue of someone taking over an unexpired term was addressed in a different area of the by-laws. Blankenship stated they did away with that because if a person serves more than twelve months then he is fulfilling the term.

Boothe stated he was opposed to III. B. 2 and suggested members be restricted to a full 2-year term. Blankenship noted it dovetailed with III. B. 4. Allison noted it would the Board's consensus if the member wanted to return to the Board. W. Kelley noted it should read one term not one year. Blankenship noted it should be term, but asked if the wording could be changed in a second reading. Allison asked if this was the same reading as the first. Blankenship stated it was. W. Kelley asked if the wording could be changed now and presented as a first reading. Blankenship agreed to the change.

Blakley asked how this would affect new members of the Board. He asked why members could not end from the start date of each member. Blankenship stated it would require going back to when each member started, whereas the original intent meant the Board would come up for renewal every two years. Blakley asked if he anticipated any early resignations due to this. Blankenship noted it would be easier for

record keeping. W. Kelley stated what the committee was looking at was if you have less than a year beginning on a certain date then it counts as a full year, otherwise it does not. Every term is two years. All new members would serve a full two years. These members today would actually serve 1½ years. Otherwise nominations would be constantly meeting and trying to fill slots. Kunz noted that with these by-law changes it would give everyone the opportunity to know when their terms end. Blankenship stated that if the Board kept up with each person's term and resignations they would be confronted every meeting with members being replaced or expired terms. They would always have to seat new members, and it would be an administrative burden to keep up with every member and when their term expires.

Kunz noted the office could keep up with the administrative bookkeeping if the Board decided to keep up with terms and send them out in the packets. Allison stated there are several ways to keep up with terms, but asked how members felt about what was on the table. Boothe asked to dispose of the second reading with the word "year", because he would block that, and do a first reading with the by-law word "term". Kunz noted the change "year" to "term" and asked for members opposed to the change. The Board approved the change by consensus. The first reading was approved by consensus.

Environmental Restoration

Allison stated that Environmental Restoration did not meet this month, but did last month. Johnson was looking into providing information to the committee and she noted that it was not included in the tracking list.

Health & Safety

Blankenship stated the task force met Monday night. John Campbell addressed the committee about the draft agenda. There was discussion of the different studies and the fact that comments are dune by June 30. The committee did not come up with a joint comment.

Nuclear Materials

Blankenship noted Nuclear Materials met and reviewed the packaging of the sealed inserts. The concerns addressed were those brought up at the last Board meeting. He conducted the meeting to address the concerns of the AT-400A and sealed inserts. Dennis Kelley from the plant helped the committee follow through on the concerns on the supplement disposition EIS and integrated pit storage document. The memo from Blair was also addressed in the meeting. He noted the timing of the document lends to the changes.

Martillotti noted a word change on page 2 of the Nuclear Materials minutes. It should read "containment". Moniak noted there was a concern about cutting the AT-400A open because it is sealed shut. He asked if this was identified as a concern when it was designed. Blankenship noted he was introduced to the AT-400A at a Board meeting.

He believed it was to be a dual container. Moniak noted there is a 3013 container that is sealed as well for plutonium oxide and metals. He asked if this was a concern. Bernier stated he could not answer that, but would find out.

Legal Presentation

Betty Hollowell, Area Counsel for the Amarillo Area Office, made the presentation. She stated the information was verified with Marc Johnston, and Martha Crosland and that similar advice had been given to the CAB at the Kirkland Area Office. She noted the office recognizes the possibility that a lawsuit based on discussion can occur. The general policy recommended is that legal counsel should represent CAB members. Two basic criteria are used to determine representation: 1) the activity the Board member was doing in the process of this was within the parameters of the member's duties, and 2) what is in the best interest of the United States. If it were found to be appropriate then a DOJ would represent the Board member.

As an individual, a Board member can reject representation and retain their own counsel at their own expense. If representation is accepted then whether representation is provided by counsel or not, the member is solely responsible for any costs in money damages. Punitive damages are those judged against a person to punish them and the government does not pay it. The policy is to promote citizen participation and providing representation does this.

Allison noted that if someone is doing the Board's business and unless they are attacking someone personally there is no liability. Hollowell stated that the number of lawsuits that are dismissed are due to suitability, it is hard to be found liable for actions conducted by the department. Hollowell added they could be sued for breach of contract if they have one with a facilitator. Allison asked if she agreed with what Walton said last month. Hollowell stated it was highly unusual for a Board member to be sued.

Moniak asked what the statue of limitations was for liable or slander. Hollowell stated it depended on the court where the suit was filed. Moniak asked how many suits had been brought against CABs. Hollowell stated she was not aware of any.

Hollowell cited as an example an altercation between two Board members. She stated it would be highly unlikely the Department of Justice would defend either for attacking each other. Moniak asked, for example, if someone stated a company is not doing a good job. Hollowell noted if it were stated in good faith, in the members opinion that company was not doing well, then the Department of Energy would recommend that Department of Justice defend the CAB member. If DOE asked the Board to review the work and comment on it and someone stated it was poorly done, then the Department of Energy would recommend defense of the member.

W. Kelley asked about action arising from Board recommendation. He cited the example of a Fernald recommendation. The department accepts the Board's recommendation; the farmer sues for loss of income. He fills against both the Board

and DOE, DOE may come out of it, can the Board. Hollowell stated that if DOE feels it is within the Board's purview they would recommend the Department of Justice defend the members. If the criteria were met then DOJ would defend. W. Kelley asked if both are found liable and the Board is responsible for 30% then who pays. Hollowell stated DOE would possibly indemnify the board. White added the Board in their statement noted there was more property that could be used by the farmer. W. Kelley asked if the Board could get personal liability insurance coverage. Hollowell noted the department is paying part of senior management insurance right now, but there are some aspects it does not cover. Hollowell said she was not aware whether DOE has addressed payment of insurance premiums for Board members.

Donelson asked if the CAB in Kirkland had concerns about liability and if the basis of their concerns were similar to this Board's. Hollowell believed it had to deal with a facilitator contract, and they did have concerns. J. Kelley asked if the Board could be sued for making a recommendation. Hollowell stated a case may or may not be dismissed by the court due to the nature of the issues, but it is possible the Board could be sued. Edwards noted the Board does not handle any money. Campbell added that Mason & Hanger provides for some of the CAB functions. DOE funds WTAMU a grant that also supports the Board. W. Kelley asked that if they are sued is their homestead protected. Edwards stated it depends on the lawsuit, he is not in a position to give legal advice, but his understanding is that if you have to go through bankruptcy the court would review it. He believes it would be protected. Blankenship noted that Policy & Personnel reviews facilitator, administrator, and budgetary issues. DOE takes the responsibility of whether to take advice, as long as it is taken in good faith he does not see this as a possibility.

DISCUSSION ON AUDIO/VIDEO TAPING

Allison suggested the Ex-Officio reports be first. W. Kelley then asked if there would be discussion of the audio/visual recordings. Blankenship stated he would like to discuss it if it could be done quickly. W. Kelley stated the purpose of looking at the liability issue was due to the recording of the meetings. His concern is that the Board is spending a long period of time on the minutes, and asked if the other Boards record the meetings. It the Board is going to open up the meetings to recordings then they need to have an official recording. J. Kelley noted that some Boards keep the recordings for a certain amount of time then discard them. Blankenship stated whether it is allowed or not, the Board should proceed with the meetings. He called for a vote to record the meetings and if it is approved by consensus then the Board needs to go ahead, if not then it needs to continue as usual. He added that if anyone wants a copy of the minutes they are available.

Campbell stated that Mason & Hanger can and is prepared to do this or the costs could be absorbed by WTAMU. W. Kelley proposed having audio and video recordings and allowing Mason & Hanger to do it for the Board. Kunz stated the recommendation before the Board would be that Board meetings would be both audio and video recorded and having it done by Mason & Hanger. Bernier asked how much this would

cost. Campbell stated he did not know at this time, but Johnny Mann attends the meetings anyway. Mann stated that if the Board wants to either audio or videotape he hoped to use videotape. If audio taped only it would present a problem because they only have 60-minute tapes. He suggested they bring a videocassette recorder, and if others want copies he can put them on videocassette. The camera would be stationary, and the audio would come through the soundboard. Mason & Hanger has a digital camera that shoots 3½ hours at a time. The cost of duplicating would be the issue. Allison noted they once had videotape but could not tell who was speaking. Mann noted that at that point they did not have the capabilities they do now. Bernier noted that the facilitator also identifies the speaker.

Kunz asked if the Board wanted a recommendation on one or two options, audio/video and who would record. She called for consensus for having all the meetings audio/video taped. Zerm added that if audio/visual taped that the master is kept in the Board office and only the administrator would make copies. The master never leaves the office. Blankenship stated he stands aside on the expense involved because it does not provide the accuracy of the minutes. Mann noted if the Board does a digital recording and wanted to keep the master they would need to incur the cost of a digital recorder and player. W. Kelley asked if it was possible for the custodian to not hand it out. Mann noted he could hand over the master to the administrator and have them take it to the plant to making copies. Johnson stated that FOYA would make things difficult when copies are requested. Boothe noted the Board needed to decide if the recordings would be made. W. Kelley noted that this is an administrative issue and therefore only requires one reading. It was recommended that the Board audio/video record the Board meetings.

EX-OFFICIO REPORTS

Governor's Office

Mulder noted he has been concerned with off-site contamination and, due to time constrains he wanted to recommend a Water 101 seminar. It would be held the morning of the next Board meeting at the Carson County Square House Museum. Some of the issues that are fairly volatile are lead levels in offsite production wells, they have had elevated levels off-site. The second issue is DOE drilling in one site and the landowner in another and coming up with different results. The cost of drilling is another issue. Other issues would be tritium in the water and state of Texas stepping in to protect human heath and safety and the environment.

Mulder is proposing that the State of Texas come in and make the presentation. If they do not get through all the topics he will propose they come back to the next PPCAB meeting until all the issues are addressed. The State is prepared to do this. Bernier noted the date as July 27, and feels this is a great idea. Allison believed the Board could come to consensus on this. J. Kelley noted the Board did agree in the retreat that water would be discussed and this would fall under the issue. Blankenship applauds the State doing this. He suggested members of the Board seriously try to consider a

decision and include this in a consensus decision on the basis of ground water. The Board has had presentations, considerations on proposals under consideration and he would like to come up with consensus advice in the meeting following this.
W. Kelley noted that one of the recommendations in the health study was the educating of the public on the use of the perched aquifer. Mulder stated there has been informal discussion with Hastings about it. Bernier suggested using mass advertising for both the presentation and the July Board meeting. Moniak stated he felt this was long overdue and supported this. There is an agriculture schedule Mulder may want to consider. Moniak asked they include background levels on the first topic, EM-50 technology research and try to do alternative studies. If someone could do this presentation. Bernier stated he felt this may be too large, and could be used at a future date.

Mulder stated that the lead levels proposed for safe drinking is 0.015 mg. They will be prepared to discuss all these issues. The perched aquifer is contaminated; it has been detected off-site. The Ogallala flows to the north. When lead contamination is found in the drinking water in the Ogallala they need to figure out how it got there. The Ogallala flows south to north and the contamination is in the east. Belisle stated she appreciated the initiative but would suggest involving the ground water district. Her understanding is that the natural flow was towards south/southeast. The local part of the Ogallala was now flowing to the north. The last map shows the direction was slightly changing. Hastings noted the current general flow direction is toward the north, neither he nor his staff is aware of changes. This may be recent information they have not looked at, but he will try to find out prior to meeting. Poteet stated she is really for going with the ground water district. Boothe asked if the Board needed to take a consensus vote. He made the motion for a consensus vote. Allison suggested making it a Resolution in support of the Texas ground water presentation on July 27th at the Carson County Square House Museum. Kunz asked for consensus. Consensus was given.

EPA

Casanova noted that EPA had a grant that STAND applied for to get technical advice on the Superfund. Several groups can apply, they can not have two separate tags. The public notice is to accept this. The group has to be non-profit and legally incorporated. It can not be a group that is federally supported. The deadline is July 29th.

On May 21 TNRCC and EPA sponsored a poster board session on EPA's deletion list. They mailed 1,000 fact sheets, and had a total of 50 to 55 people excluding DOE and state people at the afternoon meeting. There were three from the public in the evening session. There are currently no plans for another session.

On the review for petition the contractor is on board and reviewing the petition. They had to stop work due to funding roadblocks, but they have the funding back. They are going to meet Friday to discuss where they are on the petition. At that time they will get the schedule for memorandums. He did not have the schedule for petition. Donelson stated he detected disappointment as to the turnout to the poster board session. He

noted that page 2 of this report detailed the well samples that were taken this quarter. Any exceedences above the Risk Reduction Rule Guidance Document (1996) were listed. Hess then asked if anyone had questions, he would try to answer them.

Department of Health

Martillotti has been in contact with the people conducting studies at the plant in conjunction with the Health & Safety task force. NIOSH is willing to make a presentation to the Board once their report is out. The Epidemiological report is still on task and will be out later this year. Another report on female workers is also being done, but the researcher has moved out of state. It will be out sometime in the future. Allison asked if the mortality report was due out the end of the fiscal or physical year. Martillotti stated it was September. Blankenship asked who would be available to make the presentation on the mortality report. Martillotti stated the people from NIOSH would make the presentation, Thomas Kuble and Barbara Grajawski. The person from DOE would be Cliff Stader. DOE has taken a look at the production and studies. He will look to see if the information may still be available to the Board.

Moniak noted that in the Health & Safety minutes a tour was mentioned, he asked if anyone from the state would be attending that tour. Martillotti stated he was unaware of the tour. On the health & safety report agenda for 1999 and 2000, comments are due June 30. The fiscal year is over September 1999. Blankenship noted some of these are long-term studies and that any additional studies can be proposed.

Attorney General's Office

Edwards reported the National Association of Attorneys General (NAAG)/DOE Workgroup might be coming to the site. Members of the workgroup have expressed an interest in visiting either Oak Ridge or Pantex, so Pantex may be getting a request for a visit. Booth stated he would like the Board to encourage the AG's to visit site and meet with the Board. J. Kelley noted in a conversation with Martha Crosland that an invitation was extended to visit the site.

OCCURRENCE REPORTS

Dolezal noted there were only two new occurrences this month. Allison asked about #39; how does this work, and how did this influence it. Dolezal drew a sketch of how the drains ran through the d-con room outside of the cell. Bernier stated that one of the reasons the piping was hooked to the d-con room was to catch water when washing off any contamination. Dolezal stated they currently have an equipment room with drains in it. Donelson asked for a further explanation on the pipes. Dolezal noted every drain line was capped off so there was no pathway down.

Donelson asked what the condition of the two tanks is. Dolezal stated they were there since the cells were built in the mid-80's. They are drained fairly frequently, and the contents are tested about semi-annually. Donelson asked if he felt the tanks were still maintaining their integrity. Dolezal stated they were.

Moniak noted for lessons learned, since a leak path had been discovered was the facility operating outside the safety envelope without realizing it. Dolezal stated it was. Moniak felt whoever found this should be rewarded due to the possibility of an accident. J. Kelley noted that the final report on #15 but no completion date. Dolezal stated that anything that takes a long period of time to fix still needs to be signed off within 48 days.

CO-CHAIR COMMENTS

Blankenship participated on the conference call of Board Chairs. Hanford will be hosting the fall Site-Chair meeting. In conjunction with NAAG's, he has followed the work they have done with transportation issues. Pantex will be hosting the Site Board Chairs meeting in the fall of 2000.

Blankenship, Zerm, Lopez and Johnson attended the meeting in Albuquerque on funding for the area office. Johnson gave a presentation of what had been done at Pantex. Blankenship suggested considering ground water treatability in a recommendation. A follow up on the transportation workshop is how many members would like to focus on the follow-ups. A transportation-working group has come out of the workshop. He noted that those signing the workshop signed off as individuals not members of the Boards. The wording was wrong as to the Site-Boards deciding to have a working group.

Donelson stated he felt confident that our people did not misrepresent this Board at the workshop. With regard to the Albuquerque meeting he did not get the correspondence addressed to Lon Burnham. Zerm stated he sent the letter as chair of the Program & Training committee. Copies of the letter will be included with the Friday fax.

OTHER COMMENTS

J. Kelley asked if the Board had decided to hold the Site-Board Chair meeting in the fall 2000. Kunz noted it had been decided in April. Edwards asked if there was a date for that. Lopez noted it was tentatively scheduled for September 2000. Allison asked about the evaluation of the administrator and noted that Policy & Personnel usually evaluated her. Blakley noted he was given the task after a Board meeting.

Bernier asked about the tracking sheet and that he is still committed to a couple of items. He is not sure what. On the Hanford trip Lopez is still attempting to connect with the Hanford administrator. Blakley wanted to ask Blankenship about the transportation work group and if each site wanted to have a representative. Blankenship stated it was and if the Board wanted to designate someone to represent them or the Co-Chairs could ask someone to do this. It would have to be someone who would like to look at transportation issues and follow through on it. Kunz asked if there were any objections to having Zerm and Blankenship do so. Allison noted that more members of the Board that participate the better members know what is going on. Blankenship agreed and would like to encourage the other members to interact with other sites and issues that

are interfaced. J. Kelley believes that the representative of this Board could make either a written or oral report to the Board. Blankenship noted there is a stewardship workshop this fall if anyone was interested.

PUBLIC COMMENTS

Moniak asked if Mason & Hanger was now a whole subsidiary of Day & Zimmerman. Campbell stated it was. Moniak noted the April minutes questioned the Board belonging to the Chamber of Commerce. He asked what was decided about that. Johnson stated that legal noted the Board could not be a member of the Chamber of Commerce. Moniak noted the minutes state it was not appropriate. Did this mean legally or ethically? Johnson stated the Board could not be a member.

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Kunz asked for further comments from the public.

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For additional information on the National SSAB Meeting on Stewardship, contact the Oak Ridge SSAB Support Office:

Phone:
1-423-241-4690
1-423-241-3665
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P.O. Box 2001, EM-90
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Oak Ridge Site Specific Advisory Board

National SSAB Meeting on Stewardship

October 25-28, 1999
Oak Ridge, Tennessee

ORSSAB
National SSAB Meeting
on
Stewardship

October 25-28, 1999
Oak Ridge Mall Conference Center
Oak Ridge, TN

The meeting will provide SSAB members an opportunity to hear presentations about the national status of stewardship and to discuss stewardship issues at individual DOE sites. Participants will include representatives from the DOE site specific advisory boards and their affiliated local, state, and national regulatory agencies and elected officials.

SSAB members will spend much of their time in break-out sessions intended to address the following four stewardship topics:

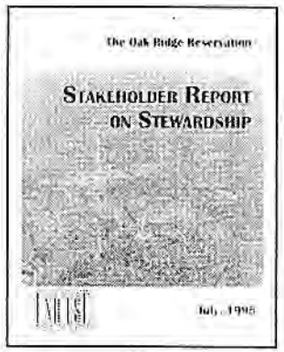
1. What Needs to Be Done?
2. Who Does What?
3. How Will Information Be Tracked?
4. How Will It Be Paid For?

On October 25, a tour of the Oak Ridge Reservation will be offered to interested participants. The emphasis will be on areas requiring long-term stewardship.

In order to prepare in advance for the meeting, information on stewardship will be mailed to SSAB members, along with registration forms and other pertinent material.

Oak Ridge Stewardship Working Group

The Oak Ridge Stewardship Working Group (SWG), a broad-based, independent stakeholder group sponsored by the ORSSAB, was formed to begin work on a goal of ensuring that DOE develops a stewardship program for contaminated areas on the Oak Ridge Reservation. Members of local organizations, city government, and federal and state agencies are working together to apply the principles outlined in the July 1998 **Oak Ridge Reservation Stakeholder Report on Stewardship**. The Stewardship Report was a joint effort of members of the Local Oversight Committee Citizens Advisory Panel, the Friends of Oak Ridge National Laboratory, the SSAB and others. It was developed because people began to realize that following remediation, much contamination would remain on the reservation.



Lorene Sigal

The issue, said Lorene Sigal, member of the SSAB and SWG, is one of national concern. "Even if all the waste were removed and put somewhere else, there would still be stewardship issues at the receiving sites." But that option is too risky, too expensive and time-consuming, and so each site is faced with how to handle what's left after "cleanup" is over.

National Stewardship Activities

Stewardship has recently surfaced at the national level. In December 1998 DOE announced that as part of its settlement of a lawsuit filed by the Natural Resources Defense Council it would prepare a study on long-term stewardship. National groups such as the State and Tribal Government Working Group, Resources For the Future, and the Energy Communities Alliance are also looking at stewardship and are making significant headway, at least in defining issues.

John Applegate, the former chairman of the SSAB at the DOE site in Fernald, Ohio and who currently serves on the national Environmental Management Advisory Board commented, "We need to have a better idea of what's there and we need to record and be better aware of what's going on now." But despite the need for national initiatives, said Applegate, if stewardship is going to happen, it's going to take grass-root participation.

Almost everyone agrees that stewardship is a concept whose time has come, but addressing the issues will take considerable effort and time. The work will stretch, like stewardship itself, well into the new millennium.

What is Stewardship?

Stewardship is defined as "acceptance of the responsibility and the implementation of activities necessary to maintain long-term protection of human health and of the environment from hazards posed by residual radioactive and chemically hazardous materials."

It's a concept that has been simmering on the back burner ever since DOE and a variety of national and local stakeholder groups came to realize that full remediation of certain contaminated areas would be too expensive, impractical, and/or risky. The areas where wastes would remain in place would therefore require some sort of institutional controls for as long as the areas remain contaminated. In the case of long-lived radionuclides, controls would likely be required far beyond the probable life of DOE itself. Furthermore, future generations need to know about and understand the issues associated with long-lived contamination.

One thing everybody agrees on is that it's a pressing problem and that planning for stewardship must accompany planning for remediation of contaminated sites.