PADUCAH GASEOUS DIFFUSION PLANT
SITE SPECIFIC ADVISORY BOARD

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

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

Chair

Craig Rhodes

Board Members

Kit Atkinson
Nola Courtney
Mark Donham
Edward Duff
Judy Ingram
Vicki Jones
Merryman Kemp
Ronald Lamb
Linda Long
Douglas Raper
Craig Rhodes
Rosa Scott
Jim Smart, Ph.D.
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)

Don Seaborg
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) 744-9010.

Agenda for the April 20, 2000, meeting:

5:30
Informal discussion

6:00
Call to order, introductions
Review of agenda
Approval of minutes from March meeting

Site Manager's Comments — **60 minutes**
ES&H issues
Other
Board discussion
Public comments and questions

SSAB recommendations status — **5 minutes**

Project status updates — **20 minutes**
EM&EF Projects
Drum Mountain/Scrap Metal
Groundwater Operable Unit
Board discussion
Public comments and questions

Administrative issues — **15 minutes**
Review of SSAB Draft Workplan
Review Executive Session Guidelines
Financial update

SSAB Subcommittee Reports — **15 minutes**
On-Site Disposal Facility
Community Relations
Consultant
Membership

Adjourn

Chair
Craig Rhodes

Board Members

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

***Ex Officio* Members**

Carl Froede, Jr.
Environmental Protection Agency

Wayne L. Davis
Fish and Wildlife Resources
(Kentucky)

Tuss Taylor
Division for Waste Management
(Kentucky)

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

Dale Jackson
Department of Energy

DOE Federal Coordinator

John D. Sheppard

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

Site Specific Advisory Board
Draft Meeting Minutes
April 20, 2000

The April 20, 2000, Site Specific Advisory Board (SSAB) meeting took place at the 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, Ronnie Lamb, Linda Long, Doug Raper, Craig Rhodes, Rosa Scott, and Jim Smart. The facilitator present was Steve Kay. *Ex Officio* members present were: Carl Froede, Environmental Protection Agency (EPA), Don Seaborg, Department of Energy (DOE) and Tuss Taylor, Kentucky Division of Waste Management (KDWM). The DOE federal coordinator present was John Sheppard. Todd Adams of the Kentucky Radiation Control Branch and Brian Baker, Gaye Brewer, and Jon Maybriar of the KDWM, were present. Also present were the following members of the public and employees, contractors, and subcontractors of the DOE: Greg Cook, Gordon Dover, Diana Feireisel, Bruce Gardner, Kristi Hanson, Norm Jetta, Tim Kreher, James Malone, Ernie Mitchell, Lou Moore, Ken Morgan, Walter Perry, Shirley Speer, M'balia Tagoe, John Tillson, Corrine Whitehead and Ernest Whitehead.

Agenda

Craig Rhodes called the meeting to order and asked if there were any modifications to the agenda. Rhodes asked that discussion of website and relationship of subcontractor be added to the Administrative Issues. He added discussion of Vortec under Project Updates. The amended agenda was approved.

Minutes

The March meeting minutes had two amendments. Rhodes wanted the correction on the discussion of Vortec noted. (First paragraph on page three.) It was to read, "Volpe agreed." Mark Donham had a correction in third paragraph of Project Status Updates. Change...the board's recommendations were not considered.... to read... "when DOE had gone against the board's recommendations." The revised minutes were approved by consensus.

Site Manager's Comments

Don Seaborg introduced himself and made comments regarding looking forward to working with the board. He stated his three priorities as; 1. Working to improve credibility of the local DOE site office, 2. Supporting the ongoing investigations, and 3. The big challenge of the cleanup.

He said the Department of Justice has the lead on the investigation and is working with the other agencies involved. He said there is no weapons work going on at the site today. He said there is no reason to expect a health impact. He mentioned the presence of lead, tantalum, and other isotopes. There is anecdotal evidence but cannot confirm with evidence. He said DOE is working with Pantex for records because most of the weapons work came in from Pantex. He said that machining went on in building 720, gold work went on in 400, and the only known classified burial yard is 746-F.

Donham asked if the Groundwater samples results, that Seaborg referred to, are written down in any document. If so, he would like the board to get a copy. Tillson questioned Beryllium dissolution and sampling the liquid from drums. James Malone asked about nickel. Donham said he had a FOIA request regarding shipping records from Pantex. Seaborg said that since Donham had made these requests earlier that he would check on them again. Seaborg explained that Amy Rothrock had approximately 175 FOIA requests and they are taken on a first come-first serve basis. Donham suggested hiring more people to meet the FOIA demands.

Seaborg explained that when the board discussed Vortec DOE would sit quietly because of the litigation. Seaborg asked about DOE's written response to the board's recommendation regarding Vortec. Sheppard said that it would have been presented tonight, but not now because of the litigation.

Sheppard said that Jackson had said if the investigation found anything related to ES&H, it would be brought to immediate attention. Ingram asked again for a chart of the breakdown of cleanup money. Seaborg agreed. Tillson asked if Seaborg was aware that in 1995 Pantex records were destroyed. Donham said people had made comments to him that Seaborg, during his speech to the Chamber of Commerce, had made it sound like cleanup would be handled and then compared the site to Hanford. Donham asked

Seaborg why he was downplaying the severity of the problems at this site. Seaborg said he had not meant to downplay the problems; he was sharing a personal experience about Hanford. He said he had worked on Plutonium discharge, not the tanks. He added that the work here is not going to be done fast, but it is going to be done. Courtney said she was at the meeting and she agreed with Donham that people probably left the meeting thinking Hanford was okay. She said the public at large should know that things are not good at Hanford and will not be good here in the next few years. Corrine Whitehead said some things could never be cleaned up. Courtney added that people need to understand that the attention may go away but the problem would not. Lamb asked Seaborg why he is here. Seaborg gave his background and the reasons he had taken the position here.

Rhodes said, in keeping with DOE's and Seaborg's assurances and to alleviate the concerns of the surrounding community, as well as to gather information, he would like to make a motion. He proposed that the board make a recommendation to allow homeowners within a 15-kilometer radius of the Paducah Gaseous Diffusion Plant (PGDP) to have their property tested, within certain parameters, for emissions from the PGDP by independent testing agencies at DOE's expense.

Jones and Smart said they would prefer to see a more detailed study of this before a formal recommendation was made. After discussion, the proposal was accepted by consensus.

Proposal was made and approved to have a subcommittee bring in parameters of the testing before the board. Donham, Long, and Rhodes volunteered to serve on subcommittee. They agreed to have comments by next board meeting.

Jones asked if the 1998 Annual Environmental Report had been issued. A copy had been put in SSAB office.

Rhodes proposed a SSAB recommendation that would place the Vortec incinerator/vitrification project on the DOE moratorium on incinerators. Rhodes read the recommendation. Tuss Taylor said that Vortec is not an incinerator. Donham said that at a previous meeting Taylor had called it an incinerator. Taylor said it was incinerator-like. Ingram asked if Vortec had been dropped. Rhodes said the paper had insinuated that Vortec had been scrapped but in fact it was still alive. Atkinson, Ingram, and Jones had concerns regarding proposal. The motion passed six for three against.

Rhodes also made a motion that the recommendation be run in the media. The motion was seconded and passed by a vote of five for, three against, and one abstention. Atkinson wanted to make it noted that he is not a part of the lawsuit against Vortec in anyway nor a member of PACE.

SSAB recommendation status

Sheppard said that DOE was not at liberty to comment.

Project Status Updates

Drum Mountain progress was discussed. USEC is to characterize waste. The mammal study was addressed by Diane Friesel. She said various mammals were being tested and results should be in within a week. There will be more testing.

Sheppard said there would be an ITRD meeting on Tuesday and Wednesday of the next week. Donham asked if this was going to be considered a categorical exclusion. He said it is an experiment and has had little public involvement. Sheppard said this is not a new technique and is used successfully throughout the complex. Donham said that it might become a source itself. Tillson asked what this project was expected to cost. Donham asked if the bench scale test results have been issued. He asked that a copy be sent to the board.

Administrative Issues

Workplan

Ingram said she would like to add the investigations. Sheppard said add ITRD to June and July. Donham said Groundwater needed to be discussed and questioned why it was not marked on the Workplan. Ingram asked about Lasagna. Lamb said the board did not need more information regarding pump and treat but things like WAG 6 and other sources. Donham commented that obviously the plume had moved off site and that we never get to treating the sources. Sheppard said a document was coming out in June. Tagoe said the document addresses many of Donham's concerns.

Atkinson asked who is doing the permeable wall. He asked if he could have information on the companies involved. He added that contracts should be performance based. Dover and Tagoe said the contractors were responsible.

Tillson suggested the board request a blueprint library. He said he would email the document numbers to Rhodes.

Review of Executive Session

Sheppard said according to FACA guidelines that no part of a board meeting could be exclusive of the public. The only exception is with a letter from the Secretary of Energy on a case-by-case study basis. Nola said that some things should not be discussed in front of the public. Donham said Sheppard was correct but they had done it anyway.

Financial Update

Raper asked if the handout was in response to last meeting's discussion. He said the handout was totally unsatisfactory. Tagoe said that this is really more information than

should have been given out. Courtney said the spikes in some areas were very noticeable for March. Sheppard said a subcommittee was needed to help with the budget. Seaborg said he would get more information. Raper said the board should wait for more information and then see if the board still needed a subcommittee.

Relationship of Subcontractors

Rhodes covered minute changes and prior decisions by the board to have minutes typed and sent to Rhodes for comments before being distributed to board for comments and approval. Seaborg stated that from now on the minutes would be sent only to the chairperson for comments before being put in the mailout to the board.

Rhodes stated that as chairperson he felt he should have direct contact with the webmaster for the board's website. Seaborg said he would check on this request.

The board asked that Speer check on purchasing new tape equipment for the board.

On-Site Disposal Facility

Raper gave a report on the subcommittee meeting. Raper, Lamb, and Long are planning a tour of the Fernald facility.

Membership

Courtney said they had been trying to get a membership cycle going. New applicants have been turned in and packet is being created for membership approval.

Meeting adjourned.

Status: Waste Area Groups 3, 8, 28 and Data Gaps

- **Remedial Investigation field work for WAG 3, WAG 28, WAG 8 Site Evaluation and Data Gaps have been completed.**
- **The Draft (D1) Remedial Investigation Report for WAG 28, was issued to regulatory agencies on Jan. 26, 2000 and is undergoing regulatory review. The D1 Site Evaluation Report for WAG 8 is scheduled for June 2000 and the D1 Remedial Investigation Report for WAG 3 for September 2000.**
- **The D1 WAG 28 Remedial Investigation Report and the D1 Data Gaps Data Summary Report are under regulatory review.**

April 2000

Status: Northwest/Northeast Plume Groundwater Systems

- **9.5 million gallons of groundwater were treated at the Northwest System during March, with the facility operational 98.9 percent of the time. This brings the total treated to 465.6 million gallons.**
- **6.3 million gallons of groundwater were treated at the Northeast System during March, with the facility operational 95.2 percent of the time. This brings the total to 246.6 million gallons of water treated since the facility opened.**

April 2000

Status: Groundwater Operable Unit/WAG 6

- **EPA comments on the D1 Work Plan for the Southwest Plume Permeable Treatment Zone (PTZ) Treatability Study were received April 10.**
- **The 60 percent design package for the PTZ was sent for comment to the project team and regulators on April 5, 2000.**
- **The Innovative Treatment Remediation Demonstration Bench-scale test using Regional Gravel Aquifer material and water continues. A test summary was issued for review on April 7, 2000.**
- **Selection for the material to be used in the PTZ Treatability Study is scheduled for April 24 and 25, 2000.**
- **The 90 percent design package is scheduled for May 5, 2000, with issuance of the Certified for Construction documents on June 9, 2000. Construction is tentatively scheduled to begin this summer.**
- **Regulatory briefings on the Feasibility Study for the Groundwater Operable Unit were held on April 4, 2000.**
- **Internal comments on the D0 Feasibility Study are being addressed and the D1 version is scheduled for issuance to regulators on June 18, 2000.**

April 2000

Status: Waste Area Group 27

- 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 approved the report on September 27, 1999 after changes were made to the original document. Remedial Investigation data have been incorporated into the Groundwater Operable Unit.
- On September 29, 1999, USEC personnel completed the removal of all sediments and liquids from the abandoned C-720 maintenance facility compressor pit sump. More than 700 gallons of liquid and five drums of sediments were placed in storage pending characterization. After characterization and review, the empty sump will be filled with concrete.
- On October 29, samples of the final rinseate were sent for laboratory analysis to confirm contamination is below TCLP (Toxicity Characteristic Leaching Procedure) standards for volatiles, semi-volatiles and metals.
- Lab results reported back December 1 showed the rinseate was below TCLP levels. A letter was sent to the state on December 10 requesting concurrence with this interpretation. The sump will be filled after the Kentucky Division of Waste Management grants approval.
- The state on Jan. 4, 2000 granted approval to backfill the sump.
- The sump was filled on Feb. 4, 2000. A report will be submitted to EPA and the state in March.
- **The task completion report was transmitted to stakeholders on March 15, 2000.**

April 2000

Status: Surface Water Operable Unit

- 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 was transmitted to regulators September 29, 1999. Responses from regulators were due by January 3, 2000, however EPA and the state requested a 30-day extension due to the Department of Justice characterization of the North-South Diversion Ditch. The state responded on Feb. 9, 2000 and the EPA on Feb. 10, 2000.
- **A Core Team consisting of representatives from DOE, EPA and KDWM was chartered to resolve programmatic issues resolving cleanup. They met for the first time in Nashville on March 9-10 and April 10-12, 2000. To allow them time to resolve these issues, the D2 Surface Water RI/FS Work Plan has been placed on hold for 90 days. It is now due on July 10, 2000.**

April 2000

Status: Waste Treatment, Storage and Disposal

- On October 29, a test demonstration of the photocatalytic chemical reactor system for wastewater treatment was conducted in Paducah. The system destroys organic contaminants and may potentially remove some Tc-99 by adsorption. Test results will be evaluated for future use.
- The contract for waste operations was conditionally awarded in September to Weskem LLC. Weskem passed a readiness review, was given notice to proceed, mobilized, and started operations on Feb. 28, 2000.
- **USEC was awarded a subcontract to characterize and remove Drum Mountain by December 2000. A Draft Technical Work Plan was submitted on March 22, 2000 and is under review.**
- **A D1 Removal Action Work Plan for Drum Mountain was scheduled for submittal to regulators the week of April 12, 2000.**
- **The Drum Mountain Project is progressing on schedule. The Action Memorandum was approved March 14. A D1 Removal Action Work Plan was submitted to state and federal regulators on April 20. Analytical results from the animal samples obtained in March are expected in early May. USEC is preparing to start field work in late May.**
- **The D0 "Balance of Scrap Metal EE/CA" is scheduled to begin internal review on May 1, 2000. A D1 document is scheduled for regulator review in July. Public comment on this document should begin in September.**
- **A draft RD&D permit application for the Vortec Demonstration project has been submitted to the state of Kentucky. A draft RCRA permit will be submitted on April 30, 2000.**

April 2000

Status: Soils Operable Unit

- **Following a March 9 meeting, work on the Soils Operable Unit was suspended for 90 days while a Core Team works on programmatic issues.**
- **The D1 Scoping Document is now scheduled for release on July 6, 2000.**

April 2000

-END-

BECHTEL JACOBS
Bechtel Jacobs Company LLC

Interoffice Memorandum

To	P. A. Gourieux	*File No.*	IOM-PAD/MP-AS-00-0027
Subject	Approval to Start Drum Mountain Mammals Study	*Date*	March 13, 2000
		From	Gordon L. Dover
		Of	Paducah Manager of Projects
Copies To	Distribution	*At*	Kevil *Ext* 5030

The Paducah Readiness Assessment Board has completed its assessment of project readiness for the Drum Mountain Mammals Study. Flagging the area for project start was initiated after the Unreviewed Safety Question Determination was completed. The conditional actions identified from the assessment have now been completed.

Approval is hereby granted to begin the setting of traps for the Drum Mountain Mammals Study.

GLD:as

Distribution
G. A. Bazzell (DOE-PAD)
D. L. Chumbler
D. Feireisel (DOE-PAD)
D. R. Guminski
J. D. Jackson (DOE-PAD)
C. S. Jones
L. D. Payne
R. E. Scott
M. Tagoe
File-EMEF-DMC-PAD-RC

CDM Federal Services Inc.

consulting
engineering
construction
operations

325 Kentucky Avenue
Kevil, KY 42053
Tel 270 462-3006 Fax 270 462-3060

March 13, 2000

Mr. Craig S. Jones
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

Subcontract Name:	Paducah Environmental Services Subcontract
Subject:	Final Drum Mountain Mammal Sampling Project Submittals
Subcontract No.:	23900-SC-RM056
Document Control No.:	1701-001-CO-0144

Dear Mr. Jones:

Attached for your review and concurrence are the following documents for the Drum Mountain Mammal Sampling Project:

Project Plan
EM Project Readiness Evaluation Criteria
Security Plan – Richard Halbrook
Waste Generation Plan
Activity Hazard Analysis For Drum Mountain Mammal Sampling Project
MSDS 10% Buffered Formalin

If you have any questions, please contact Tracey Brindley or me at 462-3006.

Sincerely,

CDM FEDERAL SERVICES INC.

Joseph J. Tarantino, P.E.
Project Manager

JJT/jls

Enclosure

cc: Paducah Project File

PROJECT PLAN

Drum Mountain Mammal Sampling Project at the Paducah Gaseous Diffusion Plant

Drum Mountain Mammal Sampling Project at the Paducah Gaseous Diffusion Plant

Project Overview

The following methods will be used to collect and analyze various mammalian species near Drum Mountain at the Western Kentucky Wildlife Management Area/DOE Paducah Gaseous Diffusion Plant. Drum Mountain is a large pile of scrap material, mainly used 55 gal drums. A variety of metals, PCBs, and radioactive materials may be present at this site and there is concern that various contaminants may be accumulating in wildlife species and transported off the complex.

The existing Environmental Services Subcontract Health and Safety plan and Quality Assurance and Data Management Plan will be followed. The current deer sampling procedure will be utilized for the large animal sampling. A project specific Waste Generation Plan will be developed, along with Security plans for the sampling subcontractor and the veterinarians. A veterinarian will be utilized to euthanize the live animals that are captured. The traps with the animals will be brought out of the radiological area and the veterinarian will utilize Xylazine Sodiumpentobarbital. These drugs will be included on the security plan for the veterinarian.

Methods

Small Mammals Collection

Forty mouse and/or rat snap traps will be placed along 2 transects (20 traps per transect) on the North and South sides of Drum Mountain. Traps will be set for a minimum of 4 nights. The goal will be to collect a minimum of 10 individuals of each represented species. Capture locations will be identified and captured mammals will be placed in individual uniquely marked zip lock plastic bags.

In addition, a Victor Tin Cat trap (multiple mouse capture traps) will be placed at identified animal runs that pass underneath the South fence bordering Drum Mountain. Trapped animals will be identified and those representing species not previously evaluated for contaminants at the Paducah Site will be collected for analyses.

The animals will be weighted and the liver and kidneys removed and weighted. A section of liver and kidney tissue will be placed in 10% neutral buffered formalin for possible histological evaluation. The remainder of the animal will be homogenzied and submitted for radiological, metals, and PCB analysis.

Animal samples will be provided to the AIP personnel if a sufficient number of animals are collected. A radiological screen sample will be collected and analyzed prior to releasing the animal or sample to the offsite laboratories of AIP personnel.

Large Mammals Collection

Two live traps will be set each night for four nights of trapping. These traps will be used to capture raccoons, foxes, or other animals. Each morning the traps will be checked and if animals are present, the animals will be taken from the radiological area and placed on the gravel roadway near Drum Mountain on plastic sheeting. A veterinarian will be on call to administer drugs to euthanize the animals.

These animals will be sampled for the following analyses:

Liver	Metals, Rads, PCB
Muscle	Metals, Rads
Fat	PCB
Bone	Strontium, Rads
Kidney	Metals, Rads

Animal dissection will take place in a designated location at the C-755 subcontractor staging area.

The remainder of the animal including the head will be labeled and frozen.

Split samples will be provided to the AIP personnel if a sufficient volume of tissue is collected. A radiological screen sample will be collected and analyzed prior to releasing the animal or sample to the AIP personnel.

Laboratory Analyses

Samples will be delivered to the USEC Analytical Laboratory for gamma analysis for rad screen purposes. Upon approval to ship, samples will be shipped to Portsmouth and Southwest Research Laboratories for the full analysis of metals, PCB and radionuclides. See attached statement of work for parameters, methods and detection limits.

Sections of liver and kidney preserved in 10% neutral buffered formalin will be prepared for histological evaluation. These samples will be shipped to a licensed facility upon completion of radiological screens. Additionally, tissues will be embedded in paraffin, sectioned, treated with hematoxylin and eosin stain, and mounted on microscopic slides. Slides will be archived for possible microscopic lesion evaluation.

BECHTEL JACOBS COMPANY, LLC WORK AGREEMENT

Paducah-SMO Analytical Laboratories 3/10/00

Project Description: Drum Mountain Wildlife Sampling

Analytical services are required in support of the sampling and analysis of tissue collected from various wildlife in and around Drum Mountain

Project Number: EMPDM00-01

Task Lead: Craig Jones

Charge Number: RRIG5598

Sample Scheduling: 3/16/00 - 4/15/00

Sample Quantity: 60

Data Deliverable/QC: Level III

Turnaround Time: 21-DAY

Sample Disposal: Lab Disposal

Storage Time: 1 month **Archive Time:** 3 months

Estimated Level of Radioactivity: Not Provided

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 9
To Tracy | From Jana
Co. | Co.
Dept. | Phone #
Fax # 4G2-3000 | Fax #

Comments: Actual rad numbers should be reported for all radiological analysis and data should include the MDA, TPE, and rad error. USEC Sample Management will be responsible for the shipment of samples to both PORTS, SIU and SWRI. Detection limits are dependent upon the sample volume submitted. If insufficient volume is submitted, detection limits will be elevated. Labs will note if volume requirements were not met. Analytical priority is as follows: Rad, metals, PCB.

Craig Jones, Task Lead — Date 03/10/00

Jana White, Bechtel Jacobs, LLC. Sample Manager — Date 03/10/00

G. L. Herndon, PGDP Analytical Laboratory Program Management — Date

D. K. Perez, PORTS Analytical Laboratory Program Management — Date

Project Sampling Requirements

Project ID EMPDM00-01

Wildlife Sampling - Drum Mountain **Labcode** PORTS **SOWNumber:** EMPDM00-01

Parameter	Number	Matrix	Method/Reporting Limit		
METALS					
Aluminum	30	TISSUE	6010B	1.7 MG/KG	Liver, Muscle, Kidney
Antimony	30	TISSUE	6010B	4.1 MG/KG	Liver, Muscle, Kidney
Barium	30	TISSUE	6010B	0.14 MG/KG	Liver, Muscle, Kidney
Beryllium	30	TISSUE	6010B	0.02 MG/KG	Liver, Muscle, Kidney
Cadmium	30	TISSUE	6010B	0.23 MG/KG	Liver, Muscle, Kidney
Chromium	30	TISSUE	6010B	1.2 MG/KG	Liver, Muscle, Kidney
Cobalt	30	TISSUE	6010B	2 MG/KG	Liver, Muscle, Kidney
Copper	30	TISSUE	6010B	0.34 MG/KG	Liver, Muscle, Kidney
Iron	30	TISSUE	6010B	0.58 MG/KG	Liver, Muscle, Kidney
Lead	30	TISSUE	6010B	2.9 MG/KG	Liver, Muscle, Kidney
Manganese	30	TISSUE	6010B	0.09 MG/KG	Liver, Muscle, Kidney
Nickel	30	TISSUE	6010B	0.7 MG/KG	Liver, Muscle, Kidney
Silver	30	TISSUE	6010B	0.41 MG/KG	Liver, Muscle, Kidney
Thallium	30	TISSUE	6010B	3.9 MG/KG	Liver, Muscle, Kidney
Vanadium	30	TISSUE	6010B	0.26 MG/KG	Liver, Muscle, Kidney
Zinc	30	TISSUE	6010B	0.52 MG/KG	Liver, Muscle, Kidney
Arsenic	30	TISSUE	7060A	0.3 MG/KG	Liver, Muscle, Kidney
Mercury	30	TISSUE	7470A	0.025 MG/KG	Liver, Muscle, Kidney
Selenium	30	TISSUE	7740	0.5 MG/KG	Liver, Muscle, Kidney
METALS-Homogenized					
Aluminum	20	TISSUE	6010B	1.7 MG/KG	Homogenized
Antimony	20	TISSUE	6010B	4.1 MG/KG	Homogenized
Barium	20	TISSUE	6010B	0.14 MG/KG	Homogenized
Beryllium	20	TISSUE	6010B	0.02 MG/KG	Homogenized
Cadmium	20	TISSUE	6010B	0.23 MG/KG	Homogenized
Chromium	20	TISSUE	6010B	1.2 MG/KG	Homogenized
Cobalt	20	TISSUE	6010B	2 MG/KG	Homogenized
Copper	20	TISSUE	6010B	0.34 MG/KG	Homogenized
Iron	20	TISSUE	6010B	0.58 MG/KG	Homogenized
Lead	20	TISSUE	6010B	2.9 MG/KG	Homogenized
Manganese	20	TISSUE	6010B	0.09 MG/KG	Homogenized
Nickel	20	TISSUE	6010B	0.7 MG/KG	Homogenized
Silver	20	TISSUE	6010B	0.41 MG/KG	Homogenized
Thallium	20	TISSUE	6010B	3.9 MG/KG	Homogenized
Vanadium	20	TISSUE	6010B	0.26 MG/KG	Homogenized

Zinc	20	TISSUE	6010B	0.52 MG/KG	Homogenized
Arsenic	20	TISSUE	7060A	0.3 MG/KG	Homogenized
Mercury	20	TISSUE	7470A	0.025 MG/KG	Homogenized
Selenium	20	TISSUE	7740	0.5 MG/KG	Homogenized

PREP

Biota Sample Prep	40	TISSUE	OA71033174	PER METH	Bone, Liver, Muscle, Kidney
Microwave Digestion	30	TISSUE	OA71033213	PER METH	Liver, Muscle, Kidney

PREP-Homogenized

Biota Sample Prep	20	TISSUE	OA71033174	PER METH	Homogenized
Microwave Digestion	20	TISSUE	OA71033213	PER METH	Homogenized

QA/QC-EQUIP

Aluminum	2	WATER	6010A	PER METH	
Antimony	2	WATER	6010A	PER METH	
Barium	2	WATER	6010A	PER METH	
Beryllium	2	WATER	6010A	PER METH	
Cadmium	2	WATER	6010A	PER METH	
Chromium	2	WATER	6010A	PER METH	
Cobalt	2	WATER	6010A	PER METH	
Copper	2	WATER	6010A	PER METH	
Iron	2	WATER	6010A	PER METH	
Lead	2	WATER	6010A	PER METH	
Manganese	2	WATER	6010A	PER METH	
Nickel	2	WATER	6010A	PER METH	
Silver	2	WATER	6010A	PER METH	
Thallium	2	WATER	6010A	PER METH	
Vanadium	2	WATER	6010A	PER METH	
Zinc	2	WATER	6010A	PER METH	
Arsenic	2	WATER	7060	PER METH	
Mercury	2	WATER	7471	PER METH	
Selenium	2	WATER	7740	PER METH	
PCB	2	WATER	IH-570	PER METH	
PCB-1016	2	WATER	IH-570	PER METH	
PCB-1221	2	WATER	IH-570	PER METH	
PCB-1232	2	WATER	IH-570	PER METH	
PCB-1242	2	WATER	IH-570	PER METH	
PCB-1248	2	WATER	IH-570	PER METH	
PCB-1254	2	WATER	IH-570	PER METH	
PCB-1260	2	WATER	IH-570	PER METH	
PCB-1268	2	WATER	IH-570	PER METH	
Gross Alpha	2	WATER	RL-7111	PER METH	

Gross Beta	2	WATER	RL-7111	PER METH	

RADIOLOGICAL

Strontium-90	10	TISSUE	OA710333003	Actual Numb	Bone
Cesium-137	40	TISSUE	XP4TSRL400	Actual Numb	Bone, Liver, Muscle, Kidney
Technetium-99	40	TISSUE	XP4TSRL7320	Actual Numb	Bone, Liver, Muscle, Kidney
Neptunium-237	40	TISSUE	XP4TSRL7630	Actual Numb	Bone, Liver, Muscle, Kidney
Plutonium-239	40	TISSUE	XP4TSRL7630	Actual Numb	Bone, Liver, Muscle, Kidney
Uranium-234	40	TISSUE	XP4TSRL7630	Actual Numb	Bone, Liver, Muscle, Kidney
Uranium-235	40	TISSUE	XP4TSRL7630	Actual Numb	Bone, Liver, Muscle, Kidney
Uranium-238	40	TISSUE	XP4TSRL7630	Actual Numb	Bone, Liver, Muscle, Kidney
Thorium-230	40	TISSUE	XP4TSRL7650	Actual Numb	Bone, Liver, Muscle, Kidney

RADIOLOGICAL-Homogenized

Strontium-90	20	TISSUE	OA710333003	Actual Numb	Homogenized
Cesium-137	20	TISSUE	XP4TSRL400	Actual Numb	Homogenized
Technetium-99	20	TISSUE	XP4TSRL7320	Actual Numb	Homogenized
Neptunium-237	20	TISSUE	XP4TSRL7630	Actual Numb	Homogenized
Plutonium-239	20	TISSUE	XP4TSRL7630	Actual Numb	Homogenized
Uranium-234	20	TISSUE	XP4TSRL7630	Actual Numb	Homogenized
Uranium-235	20	TISSUE	XP4TSRL7630	Actual Numb	Homogenized
Uranium-238	20	TISSUE	XP4TSRL7630	Actual Numb	Homogenized
Thorium-230	20	TISSUE	XP4TSRL7650	Actual Numb	Homogenized

Wildlife Sampling - Drum Mountain Labcode SWRI **SOWNumber:** EMPDM00-02

Parameter	Number	Matrix	Method/Reporting Limit		
Percent Lipids	20	TISSUE	%LIPIDS	PER METH	Fat, Liver
PCB	20	TISSUE	8081	50 ppb	Fat, Liver

Homogenized

Percent Lipids	10	TISSUE	%LIPIDS	PER METH	Homogenized
PCB	10	TISSUE	8081	50 ppb	Homogenized

Wildlife Sampling - Drum Mountain Labcode PGDP SOWNumber: EMPDM00-03

Parameter	Number	Matrix	Method/Reporting Limit		
DOT Screening					
Gamma Scan	60	TISSUE	RL-7124	PER METH	DOT Screening

Wildlife Sampling - Drum Mountain Labcode SIU SOWNumber: EMPDM00-04

SIU Histology

Parameter	Number	Matrix	Method/Reporting Limit	
HISTOLOGY	20	TISSUE	NA PER METH	Brain, Liver, Kidney

Wildlife Sampling - Drum Mountain Labcode TBD SOWNumber: EMPDM00-05

Parameter	Number	Matrix	Method/Reporting Limit	
ARCHIVE				
ARCHIVAL		TISSUE	TBD PER METH	BRAIN ARCHIVE

Wildlife Sampling - Drum Mountain Labcode PGDP **SOWNumber:** EMPDM00-06

Parameter	Number	Matrix	Method/Reporting Limit		
DOT Screening for AIP					
Gamma Scan	10	TISSUE	RL-7124	PER METH	AIP Samples

EM Project Readiness Evaluation Criteria

Criteria	Applicability		Justification for Non-Applicability	Review Approach and Evidence Required
	Yes	No		
A. Personnel Availability and Training				
(1) A well defined and documented operations plan exists that defines the types of jobs needed for project completion, how many of each function are required, and who will be serving in each function.	X			Project Plan documents this information.
(2) The minimum staff that must be present and/or on call for safe operations has been well defined; staffing requirements must consider both project staff and matrix support staff	X			2 trappers/samplers are identified. 1 H&S representative in the field. A backup H&S representative is also identified.
(3) Training requirements have been defined for each *operations and safety related* job function; these training requirements must be inclusive of all ES&H related training (Hazwoper, HazCom, RadWorker II, RCRA generator, etc.) and any job specific training required to conduct the assigned functions (Operating procedures, Safety Plans, QA Plan, NCSA, etc.).	X			Training printout of personnel are provided. The job specific AHA identifies requirements. Minimum training for field personnel are GET/GERT, RAD II, Bloodborne pathogen review.
(4) Review of training program indicated it is geared toward ensuring and verifying that personnel actually learn something and is not a paperwork exercise just for creating a file.		X	Training courses were conducted in a classroom.	
(5) Training program is performance based.	X			GET/GERT, RAD II are performance based courses.

Criteria	Applicability		Justification for Non-Applicability	Review Approach and Evidence Required
	Yes	No		
(6) Training records are complete for all staff required for safe operations.	X			Training printout provided.
(7) A sufficient number of trained backup staff is available.	X			A H&S backup is identified.
(8) Interviews with operations and matrix support staff indicate that they are fully knowledgeable of their assigned tasks and can conduct the operation in a safe and effective manner (staff appear to know and respect the safety related hazards of the job)	X			Pre-job briefing was held 3/9/00 at the CDM office in Kevil, Kentucky.
(9) Emergency staff readiness has been verified through site drills.		X	Project will use plant emergency procedures and staff.	
(10) The contractor readiness evaluation has adequately covered items (1) to (9) above.	X			Readiness Assessment will be conducted on 3/13/00.
B. Procedures and Management Controls				
(1) Safety and Health responsibilities are defined, understood, and accepted by all levels. An appropriate level of safety and health support and oversight is being provided to the project.	X			The H&S representative will be on site during work.
(2) The activities that constitute routine and emergency operations have been defined and written procedures have been approved and issued to cover these activities.	X			The AHA defines this information. Also, approved sampling procedures are being conducted.

Criteria	Applicability		Justification for Non-Applicability	Review Approach and Evidence Required
	Yes	No		
(3) Written procedures contain the appropriate level of detail for safe operations and have are prepared in a step-wise manner that is readily usable by the intended operator.	X			Approved sampling procedures and a QA plan are being utilized.
(4) The project has verified by walkdown that the procedures match the actual working conditions and actions that are required to be performed.	X			The team reviewed information on 3/13/00 to verify adequacy of plans and procedures.
(5) The project has developed a Health and Safety Plan, a Waste Management Plan, and a QA Plan.	X			The ESS H&S Plan and QA plan has been approved. Also, the project generated a Waste Generation plan for this activity.
(6) A Job Hazards Analysis has been completed to ensure an adequate review of planned operations for any safety related hazards and required hazard mitigating measures; this review must be documented in the Health and Safety Plan or by itself.	X			The AHA developed for this specific activity identifies these items.
(7) Operating instructions and/or procedures ensure that staff use the appropriate protective measures and work process controls to mitigate any work related hazards that have been identified in the Job Hazard Analysis, Nuclear Criticality Safety Approvals, Safety Authorization Basis documents (BIO or SAR). FOR EXAMPLE, if PPE are required the operating procedures spell out PPE requirements. Also, if operational TSRs are required then some procedure must contain these.	X			The AHA developed for this specific activity identifies these items. The ESS H&S Plan and QA plan has been approved. Approved sampling procedures are being utilized.

(8) A document control system is in place to ensure that staff have the most recent versions of plans and procedures.	X			CDM has a document control system in use. Also procedures are maintained in controlled manuals and updated consistently.
(9) A routine program of assessments is planned including surveillances and inspections of routine operations; these assessments are geared towards verifying that the job is being conducted per procedures and that all required safety controls are being met	X			ESS has a QA assessment and surveillance program in place. This consists of 2 self-assessments and 1 surveillance each quarter to review areas of scope.
(10) All required operating permits and approvals have been issued. Examples include: Radiation Work Permits (RWPs) Nuclear Criticality Safety Approvals (NCSAs) Labor Standards Determinations Regulatory Approvals Environmental Permits (Clean Air Act, NESHAPS, NPDES, etc.) Lift Plans Drilling Permits Safety Work Permits Hot Work Permits NEPA and NEPA related statutes	X			The RWP is the only permit required and is completed.
(11) The Safety Authorization Basis is defined and approved including SARs, BIOs, ASA, USQDs, etc.		X	This activity does not affect the SAR.	Documentation will be obtained for the file.
(12) Contractors involved in the project must have an ISMS which meets the requirements of DOE P 450.4	X			ESS ISMS matrix is applicable to this activity.

(13) Project specific Work Smart Standards must be flowed down to each contractor involved in the project.	X			Exhibit G of the ESS subcontract and the G-3 Crosswalk.
C. Facilities and Equipment				
(1) Prior to commencement of construction it shall be determined that the project meets all applicable structural and safety code requirements including: Life Safety Codes, OSHA Requirements, Fire Protection, RCRA, Building Evacuation Plans, Building Emergency and Response Plans Hazard Communications Plans, Pressurized Piping, Project specific safety design requirements, Emergency Contact Plans, and Applicable Code Requirements from ASTM, NEC, AISC, ANSI, AWS, ASME, etc. Walkdowns prior to and during construction shall verify that this is the case, and shall verify that required personnel protective equipment has been provided and is available on-site."		X	Project does not involve construction.	
(2) The facility and site meet all applicable signage, posting, and boundary control requirements for Radiological Control per 10 CFR 835.	X			Radiological areas will be established in sampling area
(3) The site is adequately equipped with personnel monitoring equipment (e.g. frisk stations, continuous air monitors, volatile organics emissions monitors, LEL monitors, etc.).	X			Health Physics will provide this support.
(4) Adequate eye wash and safety showers are set-up in areas where they are needed for their intended purpose	X			Eye wash will be available in sampling area.

(5) Hazards labeling for chemicals, physical hazards, and explosion potential (e.g. NO Smoking Signs around ignitable chemicals) is complete, and Material Safety Data Sheets are available prior to the commencement of construction activities.	X			MSDSs are provided for chemicals. Hazard labels will be applied before taking to the work area.
(6) Key process piping, equipment components, and valves are labeled to provide easy location and adequate implementation of operating procedures.	X			The hood being utilized has adequate documentation of flow and operation.
(7) All process and safety related instrumentation, monitoring equipment, and gages are calibrated with a certified and traceable source (e.g. NIST), and building site emergency contacts have been contacted and coordinated with concerning the project and Site/building Lock Out/Tag Out Procedures..	X			SEC will provide calibrated rad instruments. The HNu instrument will be calibrated and documented in a logbook.
(8) A routine calibration recall and preventative maintenance program is established for equipment and instrumentation, and a formal mechanism is in place to ensure that required frequencies for calibration and preventative maintenance are not exceeded (includes HEPA filters, radiological monitors, valves, gages, flow meters, etc.).	X			SEC will provide calibrated rad instruments. The HNu instrument will be calibrated and documented in a logbook.
(9) Equipment operability checks have been performed using operating procedures to ensure that the equipment functions as intended and that the procedures reflect the actual work that is to be accomplished.		X	There is no equipment being utilized that requires procedures for operations.	

(10) As built or redlined drawings have been prepared and coordinated with building site personnel to reflect the actual site conditions, location of equipment, piping layout, and any safety related system that could potentially be involved or affect the project.		X	This project does not involve configuration management.	

VISITORS (MORE THAN ONE DAY) UNCLEARED SECURITY PLAN

Full Name: Richard Hallbrook

Employer: LMUS ____ LMES ____ DOE ____ UCEC ____ OTHER Bechtel Jacobs/CAM

PGDP Point of Contact: Craig Jones Phone: 441-5114

Beginning Date: 3/6/00 Ending Date: 3/24/00

Specific job description of individual: Original sampling at Drum Mountain

Specific work locations (primary work location and other locations this individual could be working in must be listed): Drum Mountain

Specific security route to be taken by this individual from entry post to the primary work location and satellite work areas listed above: Enter at Post 48 Tennessee to Constitute to Virginia Ave 48 Patrol Road.

Any need for this uncleared individual to go to security interest areas that are identified in CF2-SS-SE1061, "Development of Security Plan for Uncleared Individuals"? If yes, explain: No

Identify computer access requirements for the above individual; i.e., network, local PCs, e-mail, Oracle, etc.: None

Identify computer equipment/media the individual is bringing inside PGDP: None

GROUP MANAGER

The above individual's work location has been reviewed. Where necessary, an ADC review of all potentially classified documents, drawings, etc., has been completed. PC Support or myself has verified sanitization of all computer systems (network or local PCs).

All computer equipment/media will be checked for viruses before utilization inside PGDP and all data collected will be ADC-reviewed before exiting PGDP.

Escorting can only be by the visitor's point of contact or delegated escort. (FOCI escorts can be utilized to and from work areas.)

If Security Interest Areas are to be accessed by this individual, work area supervisors of each building must be notified and verify the area to be accessed has been sanitized. Notification must be made to Personnel Security via e-mail or telephone of this requested SIA access.

Group Manager 03/08/00

PERSONNEL SECURITY

The above individual is granted access to the PGDP plant site with the point of contact or a delegated escort (excluding FOCI escort).

3-13-00
Date Approved

Personnel Security

cc: Visitor Control
Group Manager (2)
Records Management

CP-81458
(7-24-97)

Drum Mountain Small Mammal Sampling
WASTE GENERATION PLAN

Waste Stream (1)	Volume (cubic feet) (2)	Container (number) (3)	Preliminary Category (4)	Characterization Method (5)	Analytes (6)	Future Disposition (7)	Schedule (8)	Comments (9)
IDW Liquid	60 gal	2- 30 gal containers	Biohazard/ Sanitary	Project Plan	Project Plan	Release off-site	3/14/00 – 3/24/00	Hold until radiological analysis is complete and release to ~~Fish and Wildlife personnel~~ upon approval from Health Physics. C-612 Treatment Facility. 03/17/00
PPE & Plastic	~ 3	2 drums	Biohazard/ Sanitary	Project Plan Landfill Waste Acceptance Criteria	Project Plan	Landfill	3/14/00 – 3/24/00	PPE and plastic will be placed in drums and disposed at landfill
Animal Carcusses	N/A	NA	Biohazard	Project Plan Landfill Waste Acceptance Criteria	Project Plan	Archived Samples	3/14/00 – 3/24/00	The remaining animal will be stored in project freezer as archived sample. Once ~~Disposition determination will be handled after completion of Drum Mountain removal.~~ determined a waste the carcusses will be disposed at the bomb
Sharps	1 Small Container	NA (disposed in PPE & Plastic Drum)	Biohazard/ Sanitary	Project Plan Landfill Waste Acceptance Criteria	Project Plan	Landfill	3/14/00 – 3/24/00	Placed in drums and disposed at landfill 03/1

Note: This table documents the packaging requirements, forecasted quantities, and characterization requirements for the waste generated during the project. Requirements for labeling, transportation, GSA management, etc., must be followed to insure proper waste management.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

Instructions for filling out AHA

Enter information on the AHA for as described below. Bracketed numbers refer to the numbered sections of the form.

[1] Enter a unique identifying number for each AHA on every page.
[2] Describe the work location.
[3] Enter the task title.
[4] Describe as many phases for completing the work as needed to clearly break down the steps, hazards and hazard controls. (See Example)
[5] List the Craft or technical discipline for each work group needed to conduct each phase of the task.
[6] List the steps needed to complete each phase of the task..
[7] List the work group (craft or discipline) that will perform each step.
[8] List the hazards involved with each step.
[9] List the controls for each hazard in the following priority order:
   1. Engineered controls
   2. Operational work practices
   3. Administrative documents
   4. Personal Protective Equipment
   5. Special personal qualifications for workers
[10] List documents that will be attached to the AHA for use in the field (e.g., RWP, LOTO, Hotwork Permits)
[11] List reference documents that should be available on site but do not need to be in the supervisors hands to conduct job briefings or control work.
[12] Site Environmental Safety and Health Representative and Site supervisor complete this section to agree that the work can be safely performed as described in the AHA.
[13] Repeat steps 6 through 9 to describe any changes needed in the AHA based on changes in work or hazards encountered.
[14] Site Environmental Safety and Health Representative and Site supervisor complete this section to agree that the work can be safely performed as described in the AHA change.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[2] Work Location: The area surrounding Drum Mountain at the Paducah Gaseous Diffusion Plant	
[3] Task Title: Environmental Services Subcontract	
[4] Work Phase	[5] List Work Groups Needed for Each Phase
A. This AHA shall be reviewed annually or as requested by the workers, supervisors, and/or safety representative	A.
B.	B.

[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)
Site Work		Radioactive contamination control	• Follow the direction of the Health Physics technician and the requirements of the task specific RWP. • Vehicles will be parked on the roadway to avoid potential contamination of tires. • Vehicles will be scanned prior to entry, and daily if used for other purposes.
		Emergency notification	• The PSS will be notified of field activities prior to the beginning of fieldwork. The field crew will have a cellular phone and a plant radio. • In case of emergency the PSS can be contacted at 441-6333 or 441-6211 or by Alpha-1 on the maintenance or operations net.
		Hand injuries	• Leather gloves will be worn while setting traps. • Care shall be taken when placing traps on the ground to avoid "tripping the trap".
		Foot injuries	• Steel toed leather work boots with steel shanks will be required when setting, checking, and retrieving traps.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)
Site Wor- (continued)		Slips, trips and falls	• Boots will be worn to help prevent ankle injuries, care shall be taken to observe for any holes, ditche or other obstacles which may cause a person to loose their balance. • Personnel will not move/touch/climb or in any way disturb the drum pile.
		Rain	• Stop work and discuss steps with Health Physics Technician.
		Biological hazards (snakes, turtles, spiders, ticks)	• Insect repellent as well as Permanone will be available to reduce insect and tick hazards. All other animals should be avoided.
Animal euthanization		Untrained personnel	• A veterinarian will be on-site to euthanize the large animals. The veterinarian will remain on the gravel access road while injecting the animal. They will have a GET/GERT escort. • At no time will the veterinarian come in physical contact with the animals. A pole stick will be used to euthanize the animals.
		Contamination control	• The traps will be carried to the access road and placed on plastic sheeting. • Once the animal has been euthanized the Health Physics technician will scan the animal and the trap.
		Hand injuries	• The veterinarian will wear latex gloves and safety glasses.
		Puncture wounds	• A sharps container will be available on-site for disposal of used needles.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)
Collecting traps/animals		Hand injuries	• Leather gloves will be worn when retrieving animals and or traps.
		Contamination control	• Follow the requirements of the task specific RWP. • All deceased animals and traps will be scanned prior to handling.
		Disease transmission	• Company issued clothing will be worn during the completion of the task. Latex gloves will be worn when handling animals. Safety glasses will be worn at all times during the setting of traps and the collection of the animals. • Open wounds/sores will be protected by an impermeable barrier. • Personnel will wipe their hands and face with anti-microbiological wipes after handling the animals/specimens. • Animal bites, cuts with contaminated equipment, and/or sticks with needles will be reported immediately to the health and safety representative.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)
Collecting animals from live traps		Bites	• Large animals will be euthanized prior to removal from the live traps. • Personnel will keep hands away from the sides of the traps containing live animals. • Traps containing live animals will be moved to the roadway and placed on plastic, these traps will be moved utilizing the handles located at the top of the traps. • A minimum of two people will be present when moving live animals traps. • In case of escape, personnel will step away from the animal and allow it to run free.
		Hand injuries	• Leather gloves will be worn while retrieving animals and or traps.
		Puncture from needles	• A sharps biohazard container will be present. Needles will not be recapped – they will be disposed of after use. Upon completion of the job, these needles will be disposed of in accordance with local laws. • All punctures/sticks will be reported immediately to the health and safety representative.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)
Dissecting animals		Cuts	• Cut resistant gloves will be worn during the dissection.
		Blood/body fluids	• A sharps container will be used to dispose of scalpel blades. • Aprons will be worn over company coveralls during the dissection of the large animals. • Latex gloves will be worn on the exterior of all other gloves. Safety glasses with side-shields will also be required.
		Slips, trips and falls	• Plastic will be on the floor in the sample area, care should be taken when walking in this area. Slippery conditions will occur if animal blood is on the floor, attempts will be made to wipe up large accumulations of blood.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

Sample Preservation (Formlin)		Inhalation Absorption Ingestion	• MSDS is attached • The formalin will remain capped until needed for sample preservation. • Safety glasses and latex gloves will be required when transferring formalin from its original container to sample containers. • Sample bottles will be filled with the appropriate amount of formalin, and immediately capped. The sample jars will be filled in the C-743-T17 laboratory hood. Tissue samples will be placed in sample jars once collected. • The formalin will be used in the sample staging area only, the roll up door will remain open at all times during sample collection and transfer. • HNu readings will be taken when sample bottles are opened. • Safety glasses and latex gloves will be required when handling sample jars containing formalin. • Personnel will be required to wash hands with soap and water after handling.

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[10] Attachments:

Document Type	Document Number	Applies to Work Group	For Work Step(s)/Phase(s)
MSDS	10% Buffered Formalin	Designated Sampling Crew	All
Comments:			

[11] References:

Document Type	Document Number	Applies to Work Group	For Work Step(s)/Phase(s)
General Health and Safety Plan		All	All
Quality Assurance and Data Management Plan	1701-001-QA-00370	All	Sampling
Procedure	CDM-022 Deer Sampling	All	Sampling

[12] Subcontractor Approvals		a. Print Name	b. Signature	c. Date
1	Environmental, Safety, and Health	Arnis Guymon	Arnis L. Guymon	3/13/00
2	Site Supervisor	Tracey Brindley	Tracey Brindley	3/13/00

ACTIVITY HAZARD ANALYSIS FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT

[1] AHA No. 003

[13] Change Summary			
[6] Activity Steps	[7] Work Groups	[8] Hazards	[9] Hazard Controls (Engineered, Operational, Documents, PPE, Qualifications)

	[14] Subcontractor Approvals	a. Print Name	b. Signature	c. Date
1	Environmental, Safety, and Health			
2	Site Supervisor			

ACTIVITY HAZARD ANALYSIS

PRE-JOB BRIEFING ATTENDANCE

AHA No: 003	Job Title: AHA FOR DRUM MOUNTAIN MAMMAL SAMPLING PROJECT	Date:
Service Supervisor	Performer Organization: TN&A AND RICHARD HALBROOK	Time:
I agree to work within the scope of work and follow the work controls described in the briefing.		

Signature	Badge No. or SSN	Organization

10% Neutral Buffered Formalin
88082

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: 10% Neutral Buffered Formalin
Catalog Numbers:
23005500, 23011120, 23023798, 23023799, 23026783, 23027274, 23028865, 23028866, 23029973, 23031092, 23032059, 23032060, 23032061, 23032062, 23035159, 23036223, 23036225, 23036226, 23037238, 23037239, 23038528, 23045111, 23045112, 23045149, 23046785, 23046986, 23046988, 23047002, 23111003, 23111004, 23111005, 23111008, 23111114, 23111123, 23245684, 23245685, 23245864, 23245865, 23253998, 23269627, 23269628, 23286200, 23286603, 23305510, 23314264, 23314499, 23316153, 23316154, 23316155, 23316156, 23426796, 23426797, 23427098, 57011
Synonyms:
None.
Company Identification: Biochemical Sciences, Inc.
100 Clarendon Drive
Swedesboro, NJ 08085
For information, call: 800-524-0294
Emergency Number: 800-524-0294
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
50-00-0	Formaldehyde	3.8 %	200-001-8
7558-79-4	Sodium phosphate dibasic	<1.0	231-448-7
7558-80-7	Sodium phosphate monobasic	<1.0	231-449-2
7732-18-5	Deionized Water	Balance	231-791-2

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW
Appearance: colourless. Flash Point: > 200 deg F.
Warning! Harmful if inhaled. May cause allergic respiratory reaction. May cause allergic skin reaction. Harmful if absorbed through the skin. May cause respiratory and digestive tract irritation. May cause lung damage. May cause pulmonary edema. May cause eye irritation and transient injury. May cause severe skin irritation. May cause reproductive and fetal effects. Contains formaldehye. Respiratory sensitizer. Potential cancer hazard.
Target Organs: Lungs.

Potential Health Effects
Eye:
May cause severe eye irritation. May result in corneal injury.
Skin:
May cause skin irritation. May cause severe skin irritation. Harmful if absorbed through the skin. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. In severe cases may produce blistering, scaling and the formation of fissures.
Ingestion:

Harmful if swallowed. May cause irritation of the digestive tract. Ingestion may cause violent vomiting and diarrhea leading to collapse.
May cause systemic toxicity including central nervous system depression, convulsions, coma, and possible death due to respiratory

Inhalation:
Harmful if inhaled. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause asthmatic attacks due to allergic sensitization of the respiratory tract. May cause pulmonary edema and severe respiratory disturbances.

Chronic:
Prolonged or repeated skin contact may cause dermatitis. May cause respiratory tract cancer. May cause fetal effects. Formaldehyde has been associated with nasal and nasopharyngeal cancers. Repeated exposure may cause skin discoloration and thickening and nail decay.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

Skin:
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion:
If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:
Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:
Treat symptomatically and

Antidote:
None reported.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Use water spray to keep fire-exposed containers cool.

Extinguishing Media:
For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spill/Leaks:
Absorb spill with inert material, (e.g., dry sand or earth), then place in a chemical waste container. Clean up [illegible], observing precautions in the Protective Equipment section. Provide ventilation. Urea based materials are available which can be used to bind the formaldehyde forming a polymer.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Do not ingest or inhale.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Formaldehyde	C 0.3 ppm; C 0.37 mg/m3	0.016 ppm TWA; NIOSH Potential Occupational Carcinogen - see Appendix A Potential NIOSH carcinogen.	0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential c ancer hazard (29 CFR 1910.1048)
Sodium phosphate dibasic	none listed	none listed	none listed
Sodium phosphate monobasic	none listed	none listed	none listed
Deionized Water	none listed	none listed	none listed

OSHA Vacated PELs:

Formaldehyde:

3 ppm TWA (unless specified in 1910.1048)

Sodium phosphate dibasic:

No OSHA Vacated PELs are listed for this chemical.

Sodium phosphate monobasic:

No OSHA Vacated PELs are listed for this chemical.

Deionized Water:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:	Liquid
Appearance:	colourless
Odor:	Characteristic odor.
pH:	7.0 +/-0.1@25C
Vapor Pressure:	Not available.
Vapor Density:	>1 (Air= 1)
Evaporation Rate:	Similar to water.
Viscosity:	Not available.
Boiling Point:	102 deg C
Freezing/Melting Point:	Not available.
Autoignition Temperature:	Not applicable.
Flash Point:	> 200 deg F (> 93.33 deg C)
NFPA Rating:	Not published.
Explosion Limits, Lower:	Not available.
Upper:	Not available.
Decomposition Temperature:	Not available.
Solubility:	Completely soluble in water.
Specific Gravity/Density:	1.0 (Water=1)
Molecular Formula:	Not applicable.
Molecular Weight:	Not available.

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable under normal temperatures and pressures. Polymerization at low temperatures may occur.

Conditions to Avoid:
Polymerization at low temperatures may occur., incompatible materials, ignition sources, acids, reducing agents, oxidizers, bases.

Incompatibilities with Other Materials:
Hydrogen peroxide, magnesium carbonate hydroxide, nitrogen dioxide, nitromethane, peroxyformic acid, perchloric acid + aniline, performic acid, phenol, potassium permanganate. Substance reacts with hydrogen chloride in humid air to produce bischloromethyl ether (carcinogen).

Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide, oxides of carbon.

Hazardous Polymerization: May occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 50-00-0: LP8925000
CAS# 7558-79-4: WC4500000
CAS# 7558-80-7: WA1900000
CAS# 7732-18-5: ZC0110000

LD50/LC50:
CAS# 50-00-0: Inhalation, mouse: LC50 =400 mg/m3/2H; Inhalation, rat: LC50 =203 mg/m3; Oral, mouse: LD50 = 42 mg/kg; Oral, rat: LD50 = 100 mg/kg; Skin, rabbit: LD50 = 270 mg/kg.
CAS# 7558-79-4: Oral, rat: LD50 = 17 gm/kg.
CAS# 7558-80-7: Oral, rat: LD50 = 8290 mg/kg.
CAS# 7732-18-5: Oral, rat: LD50 = 490 mL/kg.

Carcinogenicity:
Formaldehyde -
ACGIH: A2-suspected human carcinogen
California: carcinogen - initial date 1/1/88

NIOSH: occupational carcinogen
NTP: Suspect carcinogen
OSHA: Possible Select carcinogen
IARC: Group 2A carcinogen

Sodium phosphate dibasic -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Sodium phosphate monobasic -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Deionized Water -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:
No information available.

Teratogenicity:
No information available.

Reproductive Effects:
No information available.

Neurotoxicity:
No information available.

Mutagenicity:
No information available.

Other Studies:
Please refer to RTECS (LP8925000) for additional data.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
Bluegill LC50=100 ug/L/96H Lake trout LC50=100 uL/L/96H Atlantic salmon LC50=173 uL/L/96H Catfish (fresh water) TLm=32 ppm/24H Flounder (salt water) TLm=100-330 ppm/48H Fathead minnow LC50=10-100 uL/L/96H Rainbow trout LC50= 168mg/L/48H Zebrafish LC50=41 mg/L/96H Water flea LC50=52 mg/L/24H

Environmental Fate:
Persistence/Degradation: Substance is biodegradable in aerobic and anaerobic conditions. Bioconcentration: Studies on various fish have shown little potential for bioconcentration of substance. Soil Adsorption: log octanol/water partition coefficient=0.35 (indicates low potential for soil adsorption). Substance has a high biological oxygen demand.

Physical/Chemical:
Substance photolyzes and reacts with hydroxyl radicals. The half-life (in sunlight) is a few hours. Without light, substance reacts with nitrate radicals.

Other:
None.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.
RCRA P-Series: None listed.
RCRA U-Series: CAS# 50-00-0: waste number U122.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
No information available

Canadian TDG
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA
CAS# 50-00-0 is listed on the TSCA inventory.
CAS# 7558-79-4 is listed on the TSCA inventory.

CAS# 7558-80-7 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)
CAS# 50-00-0: final RQ = 100 pounds (45.4 kg)
CAS# 7558-79-4: final RQ = 5000 pounds (2270 kg)

Section 302 (TPQ)
CAS# 50-00-0: TPQ = 500 pounds; RQ = 100 pounds (does not meet toxicity criteria but because of high production volume and recognized toxicity is considered a chemical of concern)

SARA Codes
CAS # 50-00-0: acute, chronic.

Section 313
This material contains Formaldehyde (CAS# 50-00-0, 3 8%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:
CAS# 50-00-0 is listed as a hazardous air pollutant (HAP).
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
CAS# 50-00-0 is listed as a Hazardous Substance under the CWA.
CAS# 7558-79-4 is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
CAS# 50-00-0 is considered highly hazardous by OSHA.

STATE

Formaldehyde can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Sodium phosphate dibasic can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
Sodium phosphate monobasic is not present on state lists from CA, PA, MN, MA, FL, or NJ.
Deionized Water is not present on state lists from CA, PA, MN, MA, FL, or NJ.
The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:
WARNING: This product contains Formaldehyde, a chemical known to the state of California to cause cancer.
California No Significant Risk Level:
CAS# 50-00-0: no significant risk level = 40 ug/day

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
Risk Phrases:
Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37 Wear suitable protective clothing and gloves.
S 44 If you feel unwell, seek medical advice (show the label where possible).

S 51 Use only in well ventilated areas.

WGK (Water Danger/Protection)

CAS# 50-00-0: 2
CAS# 7558-79-4: 1
CAS# 7558-80-7: 1
CAS# 7732-18-5: No information available.

Canada

CAS# 50-00-0 is listed on Canada's DSL/NDSL List.
CAS# 7558-79-4 is listed on Canada's DSL/NDSL List.
CAS# 7558-80-7 is listed on Canada's DSL/NDSL List.
CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.
WHMIS: Not available.
CAS# 50-00-0 is not listed on Canada's Ingredient Disclosure List.
CAS# 7558-79-4 is not listed on Canada's Ingredient Disclosure List.
CAS# 7558-80-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 50-00-0: OEL-ARAB Republic of Egypt:TWA 2 ppm (3 mg/m3)
OEL-AUSTRALIA:TWA 1 ppm (1.5 mg/m3);STEL 2 ppm (3 mg/m3);CAR
OEL-BELGIUM:TWA 1 ppm (1.2 mg/m3);STEL 2 ppm (2.5 mg/m3);CAR
OEL-CZECHOSLOVAKIA:TWA 0.5 mg/m3;STEL 1 mg/m3
OEL-DENMARK:STEL 0.3 ppm (0.4 mg/m3);Carcinogen
OEL-FINLAND:STEL 1 ppm (1.3 mg/m3);Skin
OEL-FRANCE:STEL 2 ppm (3 mg/m3)
OEL-GERMANY:TWA 0.5 ppm (0.6 mg/m3);Carcinogen
OEL-HUNGARY:STEL 0.6 mg/m3;Carcinogen
OEL-JAPAN:TWA 0.5 ppm (0.61 mg/m3);Carcinogen
OEL-THE NETHERLANDS:TWA 1 ppm (1.5 mg/m3);STEL 2 ppm (3 mg/m3)
OEL-THE PHILIPPINES:TWA 5 ppm (6 mg/m3)
OEL-POLAND:TWA 2 mg/m3
OEL-RUSSIA:TWA 0.5 ppm;STEL 0.5 mg/m3;Skin
OEL-SWEDEN:TWA 0.5 ppm (0.6 mg/m3);STEL 1 ppm (1. mg/m3)
OEL-SWITZERLAND:TWA 0.5 ppm (0.6 mg/m3);STEL 1 pp (1.2 mg/m3)
OEL-THAILAND:TWA 3 ppm;STEL 5 ppm
OEL-TURKEY:TWA 5 ppm (6 mg/m3)
OEL-UNITED KINGDOM:TWA 2 ppm (2.5 mg/m3);STEL 2 ppm (2.5 mg/m3)
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 6/07/1999 Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

NEWS MEDIA CONTACT:
April Kaufman, 202/586-5806

FOR IMMEDIATE RELEASE
April 12, 2000

Secretary Richardson Announces Proposal to Compensate Thousands of Sick Workers

Administration Addresses Cold War Legacy

Secretary of Energy Bill Richardson today announced a Clinton/Gore Administration initiative that reverses the decades-old government practice of opposing workers' claims that their illnesses resulted from the hazards associated with designing, testing and building nuclear weapons.

"For decades, government ignored mounting evidence that workers who were contributing to our nation's defense were themselves being put at risk," said Vice President Al Gore. "While we cannot undo their suffering, today this administration begins the process of healing by admitting the government's mistakes, designing a process for compensating these workers for their suffering and by becoming an advocate for Department of Energy workers throughout the nuclear weapons complex."

The announcement is the culmination of a series of actions that the Administration has taken over the past 10 months to compensate the men and women who developed illnesses from exposure to dangerous chemicals and radiation while working to build America's nuclear defense.

"We are moving forward to do the right thing by these workers," Secretary Richardson said. "The men and women who served our nation in the nuclear weapons industries of World War II and the Cold War labored under difficult and dangerous conditions with some of the most hazardous materials known to mankind. This is a fair and reasonable program. It will compensate workers and get them the help they have long deserved."

The Administration's proposal, if enacted into law by Congress, would compensate more than 3,000 workers with a broad range of work-related illnesses throughout the Energy Department's nuclear weapons complex. The legislation would give lump sum financial benefits or a package of benefits including lost wages, medical expenses and job retraining to workers with pulmonary diseases caused from breathing particles of beryllium, workers with cancers caused by workplace radiation exposure and specific groups of workers at the department's Paducah, Ky., Portsmouth, Ohio; and Oak Ridge, Tenn., sites.

The initiative expands on legislation introduced by Secretary Richardson in November 1999, in response to President Clinton's July 1999 request. Following its 8-month review, the National

Economic Council (NEC) recommended to the President that the 1999 legislative proposal be significantly expanded. The 1999 legislation proposed benefits for workers with beryllium disease, a group of workers at the department's Paducah, Ky., plant and benefits for certain workers at the department's Oak Ridge, Tenn., site.

The administration's enhanced proposal would provide:

- *for workers with beryllium-related illnesses* – compensation comparable to benefits provided by the Federal Employees' Compensation Act (FECA), including medical costs, lost wages and job retraining. All medical expenses would be paid in full by the compensation program, including prescriptions, treatments and travel costs. Workers diagnosed with a beryllium-related pulmonary condition before the legislation passes may choose a $100,000 lump sum benefit or the compensation package. This applies to any past or present worker with chronic beryllium disease – including federal and contractor employees, as well as individuals who worked for companies that manufactured beryllium for the U.S. government;

- *for workers with radiation-related cancers* – the benefits will be the same as those for beryllium affected workers, including full, first dollar medical coverage, lost wages and job retraining. If adequate information about the amount of radiation workers were exposed to is not available, the Department of Energy will assume they were exposed to the highest amount of radiation associated with the tasks they performed. Workers diagnosed with a cancer caused by exposure to certain kinds of radiation before the legislation passes may choose a $100,000 lump sum benefit or the compensation package;

- *for other groups of sick workers* – $100,000 lump sum benefits are available to workers with specific types of cancer at the department's three former gaseous diffusion plants and, upon Secretarial approval, to a group of workers at the department's East Tennessee Technology Park in Oak Ridge who have illnesses an independent panel of physicians determines are caused by workplace exposures. These workers might also be eligible for benefits under the program for workers with radiation-related cancers; and

- *for workers with other occupational illnesses* – Secretary Richardson announced that he is establishing a workers' advocacy office to help workers with illnesses not specifically addressed in the legislative proposal obtain state workers' compensation benefits.

Total program costs, including administrative costs and worker benefits, are estimated to be about $120 million annually over the first three years the program is fully operational, declining to about $80 million per year after that as the backlog of claims is reduced.

Most of the workers who would benefit from this proposal have worked at the department's Hanford Reservation (Wash.), Oak Ridge Reservation (Tenn.), Savannah River Site (S.C.), Nevada Test Site, Rocky Flats Environmental Technology Site (Colo.), Pantex Plant (Tex.), Mound Plant (Ohio), Lawrence Livermore National Laboratory (Calif.), Los Alamos National Laboratory (N.M.), Fernald Environmental Management Project (Ohio) and the gaseous diffusion plants in Paducah, Ky.; Portsmouth, Ohio; and Oak Ridge, Tenn. All workers with occupational illnesses across the

department's nuclear weapons complex will be assisted with state workers' compensation claims by the department's new advocacy office.

As part of the NEC-led review, one panel of government public and occupational health experts examined whether some workers at Energy Department nuclear weapons production facilities were at an increased risk for developing certain illnesses. Their conclusion supporting workers' claims was based on available scientific evidence, worker monitoring programs and other information.

A second panel of experts reviewed how Energy Department contractor employees with occupational illnesses fared in state workers' compensation systems and concluded more could be done to help workers in this arena.

The Department of Energy held several public town hall meetings to hear directly from workers about their illnesses. Approximately 3,000 current and retired workers and family members attended meetings held by Assistant Secretary of Energy for Environment, Safety and Health, Dr. David Michaels, near the department's major sites in: Paducah, Ky.; Piketon, Ohio; Oak Ridge, Tenn.; Rocky Flats, Colo.; Hanford, Wash.; Mercury, Nev; Los Alamos, N.M., and Burlington, Ia.

Further information about the administration's proposal, including benefit summaries, NEC materials and transcripts from public meetings, is available at www.eh.doe.gov/benefits.

– DOE –

R-00-103

The Clinton/Gore Administration's Proposal to Help Sick Workers

Last summer, President Clinton instructed the National Economic Council (NEC) to coordinate a comprehensive review of the need for additional compensation programs to assist current and former workers throughout the Department of Energy (DOE) nuclear weapons complex.

The Clinton/Gore Administration's proposal is a fair and reasonable package to right the wrongs of the past. Energy Department and contractor employees who developed illnesses from their work in the department's nuclear weapons complex would receive the compensation and help they deserve. It is aimed to help all workers with occupational illnesses and their families, either through compensation from the federal government or assistance obtaining state workers' compensation.

FOR WORKERS WITH BERYLLIUM-RELATED ILLNESSES

Any past or present worker -- including federal and contractor employees, as well as individuals who worked for companies that manufactured beryllium for the U.S. government -- with chronic beryllium disease or beryllium sensitivity will receive compensation comparable to benefits provided to federal workers by the Federal Employees' Compensation Act (FECA), including medical costs, lost wages and job retraining. Medical benefits would be full, first dollar coverage, meaning workers do not pay a co-pay or deductible and that all medical expenses are paid in full by the compensation program, including prescriptions, treatments and travel costs. Workers diagnosed with a beryllium-related pulmonary condition before the date this proposal is passed into law may choose a $100,000 lump sum benefit or the compensation package.

FOR WORKERS WITH RADIOGENIC CANCERS

An approach modeled after the system the Department of Veterans' Affairs uses to compensate veterans exposed to radiation will determine eligibility for contractor workers with radiogenic cancers. If information about the amount of radiation workers were exposed to is not available, the Department of Energy will assume they were exposed to the highest amount of radiation associated with the tasks they performed. Where a work-related cancer is found, the benefits will be the same as those for beryllium affected workers, including full, first dollar medical coverage; lost wages and job retraining. Workers diagnosed with a radiogenic cancer before the date this proposal is passed into law may choose a $100,000 lump sum benefit or the compensation package.

FOR GASEOUS DIFFUSION PLANT WORKERS

Federal and contractor workers at the Department of Energy's three former gaseous diffusion plants in Paducah, Ky., Piketon, Ohio, and Oak Ridge, Tenn. will be eligible for a lump sum benefit of $100,000 if they have a primary lung or bone cancer or a cancer listed in the Radiation Exposure Compensation Act and were exposed to radioactive contaminants associated with processing reactor tailings for at least one year. Gaseous diffusion plant workers may apply for the same benefits available to workers with radiogenic cancers. If they are eligible to receive the compensation package, they may choose between it and the $100,000 lump sum payment.

FOR EAST TENNESSEE TECHNOLOGY PARK WORKERS

A group of workers at the department's East Tennessee Technology Park in Oak Ridge who have illnesses which an independent panel of physicians finds were caused by workplace exposures could, upon Secretarial agreement with the finding, receive a $100,000 lump sum benefit.

FOR WORKERS WITH OTHER OCCUPATIONAL ILLNESSES

A workers' advocacy office will be established within the Energy Department to help past and present employees of department contractors obtain benefits from state workers' compensation programs. Occupational physicians will review the cases of workers who have occupational illnesses not related to beryllium or radiation exposure. The office will help workers or their survivors submit a state compensation claim when work-related illnesses are found.

Department of Energy
Occupational Illness Compensation Office
The Workers' Advocate

The Department of Energy (DOE) is establishing a workers' advocacy office to help qualified current and former employees of DOE contractors get benefits through state workers' compensation programs. The Occupational Illness Compensation Office will also help the department's employees with qualifying occupational illnesses, make claims to the U.S. Department of Labor for benefits under the Federal Employees Compensation Act.

The office will begin reviewing workers' claims on May 1, 2000.

The office will be headed by a director reporting to the Assistant Secretary for Environment, Safety and Health. It will utilize independent physicians who specialize in occupational health to determine if diseases are work-related.

Occupational Illness Compensation Office Functions

- Work with benefits administrators to review and track the dozens of compensation claims for occupational illnesses currently pending in the department's system.

- Expedite claims that can be processed without further review and help workers get any additional information needed to process the remaining claims.

- Operate a toll-free hotline for workers who are interested in filing workers' compensation claims with their state programs or need assistance with previously filed claims.

- Develop and implement a program to educate and reach out to workers and their families, unions and others about the benefits and assistance available to sick workers and their survivors.

- Have worker advocates, who will serve as liaisons with state workers' compensation programs, benefits administrators, occupational physicians, union representatives, workers' compensation experts, and others. The role of these advocates, who are not legal representatives for workers, is to:
  - identify existing and perceived barriers to filing successful workers' compensation claims; and
  - establish criteria, processes and procedures for when and how to help workers file benefits claims for occupational illnesses.

Proposed Future Functions

The office will administer the program to provide compensation benefits to workers with beryllium-related lung disease or radiogenic cancers, as well as the programs that compensate workers with certain cancers at the gaseous diffusion plants in Paducah, Ky., Piketon, Ohio and Oak Ridge, Tenn., and the pilot program for workers at the East Tennessee Technology Park.

The Clinton/Gore Administration's Proposal to Help Sick Workers

Hypothetical Case Studies

Whether a worker or surviving spouse chooses to receive the workers' compensation benefits or the optional lump sum payment available under the proposal depends on individual and family circumstances. Consider the following hypothetical cases:

Current Worker with Cancer – *elects to receive workers' compensation benefits*

- "Bob" is a 55 year-old worker at Los Alamos who has recently been diagnosed with disabling chronic granulocytic leukemia. He makes $50,000 per year and has worked for a Department of Energy contractor for the past 25 years. He is expected to survive with the disease for a number of years.

- He and his wife, Emma, have two children at home, ages 12 and 15. Emma does not work outside the home, and Bob is their only source of income and medical insurance.

- Bob and Emma accept the workers' compensation benefits option. By selecting this option, they will receive untaxed wage loss benefits of $37,500 per year for the duration of his disability.

  For Bob's medical care related to his cancer, he will receive:
  - all his office visits, diagnostic tests and therapies without having to pay any co-payment or deductibles;
  - transportation and other costs associated with his medical care;
  - prescription drugs and hospitalizations at no cost to Bob and his family; and
  - job retraining if Bob is unable to return to his original job after the illness.

Deceased Worker with Cancer – *spouse elects to receive workers' compensation benefits*

- "Brandon" worked for 30 years at the Portsmouth Gaseous Diffusion Plant and made $45,000 in his last year of work. Brandon died of bone cancer at age 60, after living for five years with the illness. His widow, Cathy, had to quit her job a year before he died to care for him.

- Brandon was actively employed until one year before his death but missed a great deal of work during three of the last five years he worked. He was able to work at times between recurrences, but used all his eligible sick days and disability benefits. During much of the last year Brandon worked, he received no lost wage benefits.

- In the last three years of Brandon's life, he required significant medical attention. He was in and out of the hospital, which was mostly covered by insurance. He and Cathy paid more than $40,000 during his last year of life on co-payments and deductibles for hospital care, office visits, therapies, testing and medication. Additionally, in-home nursing care during

his last year cost of more than $50,000.

- Cathy elects to pursue the workers' compensation option. She will receive:
  - 66 2/3 % of Brandon's lost wages, totaling more than $30,000.
  - reimbursement for the in-home care and other medical expenses, totaling more than $90,000.

Current Worker with Cancer – *elects to receive lump sum payment*

- "Ray" is a 50 year-old worker at a Department of Energy site with an annual income of $48,000. He has a wife and three adult children. Ray was recently diagnosed with inoperable kidney cancer that has progressed beyond his kidneys. He is not expected to live for more than six months.

- Ray was not ill and continued to work until one month before his disease was diagnosed.

- He had one surgery during the diagnostic process and is now taking a number of medications.

- Because hospital and medical care costs were largely covered by Ray's medical insurance and lost wages would not be significant, Ray and his wife elect the $100,000 option instead of the workers' compensation package.

Deceased Worker with Cancer – *spouse elects to receive lump sum payment*

- "Janet" was a 22-year Department of Energy contractor employee at Oak Ridge who died at age 53 after a two year illness with bladder cancer. She is survived by a husband, Alex, and three children, ages 24, 22 and 17.

- While Janet missed work during her two year illness, she received long term disability to replace her wages during that time.

- Most of her medical costs, including hospitalization and treatment, were covered by her medical insurance.

- Because Janet's medical costs and lost wages were largely covered, Alex chooses the $100,000 lump sum benefit.

Worker with Beryllium Disease – *elects to receive workers' compensation benefits*

- "Fred" is a 45 year old machinist at Rocky Flats who earns $45,000 per year. He has a wife and two young children. He was recently diagnosed with chronic beryllium disease (CBD) and has been beryllium sensitive for the last five years. Fred's condition has not yet required

him to miss work, but his beryllium disease prevents him from continuing in his current job.

- Fred's current medical costs for CBD are more than $1,000 per year, including medical exams, blood tests and lung function testing.

- Fred elects to accept the workers' compensation benefits program option. By selecting this option, he will receive the following:

  For any missed work, Fred will receive untaxed wage loss benefits of $37,500 per year. He will also receive job retraining, so he can return to gainful employment.

  For all medical care related to his CBD, Fred will receive:
  - his choice of medical provider;
  - transportation to and from his medical appointments, if necessary;
  - full coverage, without any co-payment or deductibles, for his medical care, including testing, blood work and examinations;
  - all prescriptions and treatments at no cost to him; and
  - additional care his condition may require in the future, like oxygen and special foods.

Retired Worker with Beryllium Disease – *elects to receive lump sum payment*

- "Joe" is 70 years old and worked at a Department of Energy facility for 35 years before his retirement at age 65. He has recently been diagnosed with CBD and is being treated for his illness.

- He missed no work due to his condition, receives a retirement pension and has good medical insurance.

- Joe elects the $100,000 lump sum benefit.

Deceased Worker with Beryllium Disease – *spouse elects workers' compensation benefits*

- "Millie's" husband, "Don," died of CBD at age 63, after a ten year battle with the disease. He earned $45,00 per year until he was unable to work for the last five years of his life. He worked for the Department of Energy for 25 years.

- Hospitalization was covered by insurance, but Millie and Don had to pay for oxygen at home, part of Don's prescription drugs and special food to keep him alive during the last year of his life. The food supplement and oxygen alone cost more than $1,000 per week and took more than $80,000 of their savings. Millie and Don also made co-payments and paid deductibles on all of Don's doctor visits, medical tests and laboratory work during his illness. Their medical expenses during his last ten years of life were well beyond Don's pension since he retired early due to his medical problem.

Paducah Gaseous Diffusion Plant

Possible Worker Exposures
Workers may have been exposed to many hazardous substances, including but not limited to: radiation, uranium, neptunium, plutonium, technicium, nickel, fluorines, trichloroethylene, hydrofluoric acid, beryllium, asbestos and various chemicals. An independent Department of Energy safety and health investigation concluded that, until 1990, workers were not adequately informed of hazards at the site or given training on how to protect themselves from their possible health impacts.

Public Meetings on Worker Health and Benefits
A public meeting with the Assistant Secretary of Energy for Environment, Safety and Health Dr. David Michaels was held in August 1999, in Paducah, Ky. About 200 attended the meeting. Secretary Richardson held a town hall meeting in Paducah on September 16, 1999, where opened by saying, "on behalf of the United State Government, I am here to say I'm sorry."

Important Contact Information
U.S. Department of Energy Workers' Compensation Helpline (toll-free): **888-447-9756**

U.S. Department of Energy Benefits Website: **http://www.eh.doe.gov/benefits**

U.S. Department of Energy Paducah Investigation Report: **http://www.eh.doe.gov/oversight**

Site Background
The Department of Energy's Paducah Gaseous Diffusion Plant opened in 1952 to enrich uranium for nuclear weapons. During the plant's Cold War history, more than one million tons of uranium was processed. Uranium enriched at the site today is used as nuclear fuel in commercial power plants. The Paducah plant performs the first step in the uranium enrichment process, followed by further enrichment at the Ohio plant. The Paducah Gaseous Diffusion Plant is located on about 3,425 acres in McCracken County, Kentucky, almost 10 miles west of the city of Paducah and 3 miles south of the Ohio River.

Environmental Management and Integration Contractor:	Bechtel Jacobs Company, LLC
Lessee to U.S. Department of Energy:	United States Enrichment Corporation
Number of current contractor employees:	1,987 (estimated; includes 1,740 USEC employees)
Historical number of contractor employees:	10,000 (estimated)

Minutes of Bi-Monthly SSAB Chairs Conference Call
Thursday, March 23, 2000
2:00-4:00 pm

Martha Crosland of Headquarters gave the opening remarks and explained that Headquarters General Counsel would hold a discussion of Conflicts of Interest and then proceed with the regular items. The following sites participated:

Los Alamos	Ann DuBois
Idaho	Woody Russell/Wendy Green Lowe
Nevada	Jim Gorman
Oak Ridge	Lorene Sigal
Pantex	Sidney Blankenship/Becky Lopez
Rocky Flats	Tom Marshall/Ken Korkia
Sandia	Ted Truske
Savannah River	Karen Patterson/Dawn Haygood

A. DISCUSSION OF CONFLICT OF INTEREST

- Susan Beard, Hal Halpern and Greg Burgess of Headquarters General Counsel discussed in great length the issue of "Conflict of Interest" as it pertains to Board membership.

- **Action: A copy of the General Counsel's comments on the Conflict of Interest Section of the Revised Guidance will be sent to the local boards for their information.**

- **Action: Woody Russell, ID suggested that the Federal Coordinators and Administrators receive training on COI at the upcoming Chairs' Meeting in Pantex.**

B. LOCAL SSAB PUBLIC PARTICIPATION ISSUES/UPDATES

Los Alamos Area Office

- Ann DuBois reported that she is attending the Jim Creighton training session this week and that it is very good.

- They are in the process of getting 2 new members for their Board – package is at Headquarters.

- Staffers from Senators Bingaman, Domenici and Congressman Udall will be attending the April meeting as they are particularly interested in the presentation of the FY 2002 budget.
- Board is concerned/involved in discussions about extent of groundwater contamination that is showing up in the perched water zones.

Idaho Operations Office

- Board held meetings Tuesday and Wednesday of this week. Six recommendations were reached.
- Sixty local high school students reviewed the High Level Waste EIS. Lots of intelligent questions were asked.
- This week was the final meeting for seven of their CAB members. Eight members remain.
- Plan to have their next meeting in May.
- Stanley Hobson is now the Interim Chair.
- The CAB is planning to hold their September meeting in Jackson, WY.

Nevada Operations Office

- At a March 10th CAB Committee meeting the issue of radioactivity in a Nye County well was discussed. This issue is receiving considerable media attention.
- Presently taking applications for new members.
- Announced the new Board Chair as Phil Claire and Vice Chair is Cynthia Ortiz.

Oak Ridge Operations Office

- Lorene Sigal reported that they are getting 7 new members on the Board.

Pantex Area Office

- Dan Glenn has replaced Steve Goodrum as the Amarillo Area Office Manager
- Discussion of the groundwater contamination issue (TCE detected in the Ogalalla Aquifer) on the site.
- Held February Board meeting wherein chronic beryllium surveillance was discussed.
- March meeting is 3/28/00. A groundwater seminar will be held at the meeting in conjunction with the Texas Governor's office.
- They have recently lost 3 of their 20 Board members – hope to replace them soon.

Rocky Flats Operations Office

- Announced that Barbara Mazurowski is to become the new Rocky Flats Operations Manager.
- Risk Assessment Corporation has completed its study on soil actinide levels (level of residue plutonium allowable in "remediated" soil) and made recommendations to the Board on the clean up levels.
- The Board has not reviewed the report – plans to discuss this in April.
- Preparing for "controlled burns" at portions of the site – to burn off noxious weeds and restore the native grasses–to prevent spontaneous fires after the site is closed.

Sandia (Kirtland Area Office)

- Some anxiety among Board members with the Board being abolished in September.
- Preparing for an outreach workshop in May to discuss long-term stewardship at the site, stimulate community interest in this issue and in potential "Working Group" that may be set up after the CAB sunsets.
- They have an outside contractor doing an evaluation on the Mixed Waste Landfill.
- The needs of the stewardship working group are being reviewed/discussed.

Savannah River Operations Office

- New Board Chair is Karen Patterson.
- March CAB meeting to be held this week. Agenda items include:
  - Budget motion
  - DNFSB presentation and recommendations
  - Discussion on how the site might "close" a non-characterized land fill
  - Election of 6 new members
- K-reactors ready for plutonium storage.

3. OTHER SITE-SPECIFIC ADVISORY BOARD ISSUES

1. Fred Butterfield gave an update on the status of the "Guidance Document" – General Counsel has concurred on the package and it is being sent back to EM for distribution.

2. Martha Crosland reminded everyone that attended the Idaho Chairs Meeting in February to **please complete the Survey Form** (copy was attached to the agenda) and **send it to Naomi Wiegler** at your earliest convenience.

3. Martha also inquired about the upcoming Pantex meeting.
Becky informed all that the conference was planned for 2 ½ days and would be held at the **Ambassador Hotel on August 3-5, 2000.**

Action: Naomi to call Becky and work with her on the particulars of the meeting.

4. The next Stewardship Conference was announced by Ken Korkia of Rocky Flats. The Conference is scheduled for **October 24-27, 2000 at the Executive Tower Inn, downtown Denver.**

Action: Naomi to call Ken/Tom in mid-April to set up a /conference planning call with other interested sites to plan the agenda for the Conference.

D. UPDATE-CONGRESSIONAL ACTIVITIES

– Betty Nolan gave an update on the status of many hearings over the next few weeks. Many Budget hearings are on the schedule and the EM budget is doing well.

– Announced that the STGWG meetings would be in Washington March 28th-29th.

– Announced that the White House National Economic Council would be releasing a report on March 30-31st on "Sick Worker Issues". NEC looked at questions of whether workers were made sick as a result of work at defense facilities and, if so, are they being adequately compensated (ala worker compensation benefits). If the report finds compensation is not adequate, Secretary Richardson is expected to ask Congress to provide support, as is being done in pending legislation to support former beryllium workers. This will include Federal employees as well as contractors.

– EMAB meetings will be in Washington on April 13-14th.

– There is a public meeting on March 27th to discuss the proposed Rocky Flats controlled burn of the buffer area.

E. CLOSING REMARKS

– Martha thanked everyone who participated and closed this call with a reminder that the next Chairs call will be on or about **May 25, 2000.**

April 17, 2000

DOE Sponsored Public Meetings and Workshops

	LOCATION	ISSUE
Apr. 5	Oak Ridge, TN Las Vegas, NV	Oak Ridge Site Advisory Board Mtg. NTS Community Advisory Board Mtg.
Apr. 6	Westminster, CO	Rocky Flats Citizens Advisory Board Mtg.
Apr. 6-7	Richland, WA	Hanford Advisory Board Mtg.
Apr. 10	Carlsbad, NM	Public Tour of WIPP
Apr. 11	Fernald, OH	Fernald Monthly Progress Briefing
Apr. 13-14	Washington, DC Washington, DC	EIA-American Statistical Assn. Committee on Energy Statistics Spring Meeting EM Advisory Board Meeting
Apr. 18	Washington, DC	Public Meeting on Proposed Standards for Efficient Fluorescent Lighting/Commercial-Industrial
Apr. 19	Albuquerque, NM	Sandia Citizens Advisory Board Mtg.
Apr. 20	Paducah, KY	Paducah Site Advisory Board Mtg.
Apr. 25	Amarillo, TX	Pantex Plant Citizens Advisory Board Mtg.
Apr. 26	Santa Fe, NM	Northern NM Site Advisory Board Mtg.
Apr. 28	Sun Valley, ID	Annual Hispanic Youth Symposium (Sponsor: INEEL)
May 3	Oak Ridge, TN Las Vegas, NV	Oak Ridge Site Advisory Board Mtg. NTS Community Advisory Board Mtg.

May 4	Westminster, CO Albuquerque, NM Carlsbad, NM	Rocky Flats Citizens Advisory Board Mtg. DOE/Sandia Stewardship Working Group Mtg. WIPP Quarterly Review Mtg. (T)
May 9	Fernald, OH	Fernald Monthly Progress Briefing
May 13	Fernald, OH	Fernald Citizens Advisory Board Mtg.
May 16-17	Sun Valley, ID (T)	INEEL Citizens Advisory Board Mtg.
May 17	Albuquerque, NM	Sandia Citizens Advisory Board Mtg.
May 18	Paducah, KY Golden, CO	Paducah Site Advisory Board Mtg. Golden Field Off./NREL Annual Public Mtg.
May 22-23	Savannah, GA	SRS Citizens Advisory Board Mtg.
May 23	Amarillo, TX	Pantex Plant Citizens Advisory Board Mtg.
May 24	Las Vegas, NM	Northern NM Site Advisory Board Mtg.
May 24-26	Richland, WA	Groundwater/Vadose Zone Integration Project Expert Panel Mtg.
May 31	LaGrande, OR	Hanford Tri-Party Agreement Quarterly Public Involvement Committee Mtg.
June 1	Westminster, CO	Rocky Flats Citizens Advisory Board Mtg.
June 1-2	LeGrande, OR	Hanford Citizens Advisory Board Mtg.
June 5	Idaho Falls, ID	Tech Transfer Workshop: Passive Soil Vapor Extraction Technology (Co-sponsors: INEEL & SRS)
June 7	Oak Ridge, TN Las Vegas, NV	Oak Ridge Site Advisory Board Mtg. NTS Community Advisory Board Mtg.

June 15	Paducah, KY	Paducah Site Advisory Board Mtg.
June 21	Albuquerque, NM	Sandia Citizens Advisory Board Mtg.
June 27	Panhandle, TX	Pantex Plant Citizens Advisory Board Mtg.
	Idaho Falls, ID	INEEL Tech Transfer Workshop: Non-Nuclear Technologies
June 28	Taos, NM	Northern NM Site Advisory Board Mtg.

This calendar is not comprehensive. It includes only those meetings and other events related to DOE public participation activities, as Program and Field Offices voluntarily report them. Comments and additions are welcome: 202/586-5373

Common Values

Funding/Budget:

- Funding for cleanup and long term stewardship (6 green dots) **(Paducah, Los Alamos, Oak Ridge, Pantex, Fernald, Savannah River Site, Idaho)**
- Predictable and adequate budget to meet compliance needs (3 green dots) **(Paducah, Pantex, Savannah River Site, Idaho)**
- Consideration for risk reduction in funding (1 green dot) **(Idaho)**
- Effective use of funding (1 green dot) **(Paducah)**

Public Participation/Stakeholder Involvement:

- Commitment to public involvement (7 green dots) **(Paducah, Oak Ridge, Pantex, Savannah River Site)**
- Recognition that communities have paid a high price - obligation to them (4 green dots) **(Paducah, Pantex, Savannah River Site, Idaho)**
- Independent and representative voice (3 green dots) **(Paducah)**
- Effective public involvement (3 green dots) **(Paducah, Pantex, Fernald, Idaho)**
- Effective public relations (3 green dots) **(Paducah, Los Alamos, Pantex, Fernald)**
- Equity and environmental justice (3 green dots) **(Fernald)**
- Timely sharing of information (2 green dots) **(Idaho)**
- Cultural sensitivity (1 green dot, 1 red dot) **(Los Alamos, Fernald)**
- Access to information (no dots) **(Fernald, Idaho)**
- Keep Board members educated on issues (no dots)
- Recognize Treaty rights (no dots)

Protection of the public/Worker health and safety:

- Human health and safety and environment should drive cleanup (9 green dots) **(Paducah, Pantex, Fernald, Savannah River Site)**
- Consideration of worker health and safety (2 green dots) **(Paducah, Idaho)**
- Public safety (no dots) **(Fernald, Idaho)**

Protection of the Environment:

- Ground and surface water protection (3 green dots) **(Paducah, Fernald)**
- Do not harm during cleanup (3 green dots) **(Idaho)**
- Protect the environment (1 green dot) **(Pantex, Fernald, Savannah River Site)**
- No new messes (no dots)
- Do not repeat mistakes (no dots) **(Idaho)**

Long-Term Stewardship:

- Consistency of land use planning with end state cleanup (2 green dots) **(Paducah, Fernald)**
- Commitment to future generations not to leave mess/jeopardy to lives (2 green dots) **(Savannah River Site, Idaho)**
- Keep end state in mind (1 green dot) **(Savannah River Site, Idaho)**

- Nationally coordinated disposition paths (1 green dot)
- Get on with it! (no dots)

Cleanup:

- Cleanup in compliance with all legal drivers and community desires (6 green dots) **(Paducah, Oak Ridge, Pantex, Idaho)**
- Decision making based on science over politics (5 green dots) **(Paducah, Los Alamos, Pantex, Savannah River Site)**
- External independent regulations of all cleanup activities (no self regulation) (5 green and one red dots) **(Paducah)**
- Decisions based on life cycle costs (2 green dots) **(Paducah, Savannah River Site, Idaho)**
- Decisions based on risk assessment (1 green dot) **(Savannah River Site, Idaho)**
- Use available technology (no dots)
- Reasonable interpretation of regulation (no dots) **(Savannah River Site)**
- Bias toward action - not study (1 red dot)
- Technology development to enhance cleanup (1 red dot)

DOE Responsibilities:

- Integrate all sites in planning (4 green dots) **(Paducah, Pantex, Idaho)**
- Integrity of DOE documents (no dots) **(Fernald)**
- Better internal DOE coordination (1 green dot)
- Openness (no dots) **(Idaho)**
- Commitment to executive involvement in disputes toward litigation (no dots)

The following was provided by the Idaho SSAB. It is a compilation of the opening Statement and many of the common interests brought-up at the SSAB Chairs' meeting:

The Site Specific Advisory Boards are a collection of concerned citizens from diverse backgrounds whose purpose is to provide informed recommendations to regulators, States, and the U.S. Department of Energy on cleanup, closure, and long-term stewardship activities at DOE facilities. The following statements express values that are held in common by all of the SSABs.

We believe the federal government's obligation continues in all communities that have paid a high price for DOE's past mistakes. Fulfillment of this obligation requires adequate and predictable funding for cleanup programs to ensure compliance with all relevant regulatory requirements and community desires. Overall risk reduction should serve as the primary mechanism for effective allocation of funds. Every effort should be made to do no further harm, avoid repeating past mistakes, and protect future generations.

We believe that protection of public and worker health and safety and the environment should drive the cleanup program. State-of-the-art risk assessment processes should serve to prioritize among cleanup projects. Decisions related to cleanup should be made in consultation with interested stakeholders, after full consideration of the environmental impacts and life cycle costs of all reasonable alternatives. All cleanup decisions should be consistent with end state plans developed in cooperation with the communities that will eventually assume responsibility for stewardship activities.

We believe the federal government must recognize the legitimate role of the public by demonstrating a firm commitment to effective public involvement. This requires openness on the part of government officials, timely access to relevant public information materials that serve to educate the public, and meaningful roles for the public into all decision-making.

We believe that the federal government should make every effort to efficiently and effectively integrate and coordinate planning efforts and the cleanup programs for all DOE sites. Whenever such an effort reveals that intersite transfers of wastes are technically appropriate, public involvement in the communities at shipping and receiving sites and along transportation corridors is of utmost importance.

We believe every effort should be made to find solutions that result in a sense of equity among affected parties.

To: Martha Crosland
From: Marilyn Reeves, Chair Hanford Advisory Board

Re: Draft Statement of Common Interests

In preparation for the conference call scheduled for 3-30-00, 2:30pm EST, I am submitting some comments on the drafts...

I have reviewed the drafts from our initial discussion in Idaho, and the rewrites from the Boards. There is a lot of agreement so far in the first three paragraphs. I hope I do not complicate the process, but I have tried to use as much of the wording from the other drafts along with my proposed changes.

First, I would like to title the three sections in the opening paragraphs: "who we are. What we do. What we expect." I prefer "What we do" to "What we believe." Next, I think it is important to reference that we are chartered under FACA in accedence with the recommendation of the Federal Facilities Environmental Dialogue Committee. Next, I want environmental restoration added, I think it means more that "closure." Next, I want reference to hazardous wastes and stabilization of nuclear wastes. I do not support wording that links funding to "the primary goal of risk reduction." Finally, DOE is not completely responsible for the funding so I agree with the wording from Pantex.

Listed below is my draft of the opening statement for your consideration:

WHO WE ARE. Site-Specific Advisory Boards (SSAB) are composed of representatives of stakeholders and the public who are concerned about cleanup and stabilization of radioactive and hazardous wastes at the Department of Energy's (DOE) nuclear weapon and research facilities. We are chartered under the Federal Facility Environmental Restoration Dialogue committee to provide independent policy and technical advice.

WHAT WE DO. We provide an opportunity for open, informed, and inclusive discussion about proposed decisions or actions with DOE, EPA, regulators, stakeholders, and the general public. Our goal is to provide timely, informed policy and technical advice and recommendations to DOE, EPA, and state regulatory agencies on selected issues relating to environmental restoration, cleanup, closure, stewardship and management of nuclear hazardous wastes and material.

WHAT WE EXPECT. DOE and state and federal regulators will support and encourage effective public involvement in cleanup, environmental restoration, closure, stewardship, and nuclear hazardous waste management decisions. DOE will seek advice and provide opportunities for public involvement, locally when the decision affects one site, and nationally when the decision affects more than one site.

We expect that timely, understandable and relevant information will be provided to enable SSAB to make informed recommendations and advice. We expect that DOE and the regulators will substantively and promptly continue to value the importance and benefit of effective public

involvement and give upmost consideration to equity and environmental justice in its decision making. We expect that DOE will honor Tribal treaties and conduct government to government consultation.

We expect that DOE will submit budgets that meet legal requirements, reduce current and future risks and are in accord with values and need of local communities. We expect that DOE will protect the public, workers and the environment.

* * *

For the statement of common values, I suggest that we try and agree on some categories or themes rather than just a laundry list. I also suggest that we got through the lists without word smithing each item. We could put them in boxes like "keep as is," "keep with minor changes" and "delete."

I hope that after this telephone work we can come up with one draft. It is confusing to work with all this paper.

Opening Statement As devised by the Rocky Flats Contingent at the SSAB Chairs' Meeting, Including Changes/Edits from SSABs:

The Site-Specific Advisory Boards (SSAB) are a collection of concerned citizens from diverse backgrounds whose purpose is to provide informed recommendations to regulators, States, and the U.S. Department of Energy (DOE) on the activities involved in the cleanup/closure/stewardship at DOE (as appropriate) weapons facilities.

We believe in an open, informed, and inclusive decision process with participation from board members, regulators, DOE officials, and the general public.

We expect the DOE to remain open to provide timely and relevant information on site issues. We expect the DOE to respond in a timely manner to the recommendations from the SSABs. As representatives from local sites, we expect the DOE to involve local stakeholders in the decision processes involved in all aspect of cleanup/closure/stewardship. We expect that funding be provided for the cleanup/closure/stewardship of the sites in our communities, in a manner consistent with all legal requirements and with the wishes of the community. We expect all funding to be used in an efficient manner. ~~We are concerned that current cleanup budgets may not meet obligations agreed to by DOE and that this results in unacceptable threats to the public, workers, and environment.~~ We expect that cleanup budgets will meet obligations agreed to by DOE so as to avoid unacceptable threats to the public, workers, and the environment. (Oak Ridge). We expect DOE and site contractors to act in the best interest of the public and worker safety in all matters related to cleanup/closure/stewardship of the sites in our communities (Fernald).

Los Alamos suggests adding wording the Department's commitment to dealing with sovereign nations.

The following opening Statement was written by the Savannah River Site:

The Department of Energy Environmental Management Site Specific Advisory Board (SSAB) is composed of concerned citizens with diverse backgrounds from across the country. Its purpose is to provide DOE, EPA, and state regulatory agencies with informed recommendations on cleanup/closure/stewardship activities and management of nuclear materials across the DOE nuclear weapons complex.

Informed recommendations result from effective public involvement. The SSAB will provide an open, informed, and inclusive decision process that includes SSAB members, regulatory agencies, DOE and informed stakeholders. SSAB members will provide independent and informed recommendations based on our common values, to DOE and its regulating agencies.

DOE will support and encourage effective public involvement in cleanup/closure/stewardship and nuclear materials management decisions. DOE will involve stakeholders in all aspects of the decision process, locally when the decision affects one site and nationally when the decision affects more than one site. DOE will provide timely and relevant information on site issues. DOE will also provide timely and relevant responses to SSAB recommendations. DOE will continue to value the importance and benefit of effective public involvement and give upmost consideration to equity and environmental justice in its decision making.

DOE will allocate adequate funding for the cleanup/closure/stewardship of the nuclear weapons complex and management of nuclear materials. Funding will be allocated and used efficiently, with a primary goal of risk reduction. Cleanup/closure/stewardship and nuclear materials management decisions will be consistent with all legal requirements, and with the wishes of affected communities.

The following statement was submitted by the Pantex SSAB:

The Environmental Management Site-Specific Advisory Boards are composed of concerned citizens from diverse backgrounds whose purpose is to provide informed recommendations to the Department of Energy, to the states and to the appropriate regulatory agencies on the activities involved in the cleanup, closure and stewardship of DOE nuclear weapons facilities. We are committed to an open, informed and inclusive decision process with participation from board members, regulators, DOE officials and the general public. We expect a continuing commitment from the DOE that provides timely and relevant information on site issues. We expect the DOE to respond substantively to the advice and recommendations from the SSABs. As representatives from individually affected sites, we expect the DOE to involve local stake holders in the decision-making processes regarding all aspects of cleanup, closure and stewardship. We expect requests for funding to be commensurate with all legal requirements and the wishes of the community. We expect the best efforts of the DOE in a restoration of the natural environment. We are concerned that current cleanup budgets may not meet obligations agreed to be the DOE and that this will result in unacceptable threats to the public, workers and the environment. We submit the following statements of principle and shared values:

Paducah Site-Specific Advisory Board
FY 2000 Costs

Item	Budget	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	YTD	Remaining
General Support to SSAB															
Office Rental	5,000.00	776.00			776.00	776.00								2,328.00	2,672.00
Member Travel	33,000.00						1,098.00							1,098.00	31,902.00
Admin. Support	72,331.00	3,438.00	4,988.00	3,330.00	4532.00	4,706.00	7,310.00							28,304.00	44,027.00
Information & Communication	45,090.00	480.00	480.00	480.00	720.00	3,450.00	9,390.00							15,000.00	30,090.00
Support to Subcommittees															
Community Outreach															
Travelling Exhibit	9,000.00													0	9,000.00
Exhibit Revisions	900.00													0	900.00
Media Announcements	3,630.00		484.00											484.00	3,146.00
Newsletter	6,658.00													0	6,658.00
Fact Sheets	1,440.00					960.00								960.00	480.00
Mailing List Maintenance	1,824.00	152.00	152.00	152.00	152.00	152.00	152.00							912.00	912.00
Web Page Maintenance	1,500.00													0	1,500.00
Policy & Personnel															
Technical Advisor	25,000.00													0	25,000.00
Total	205,373.00	4,846.00	6,104.00	3,962.00	6,180.00	10,044.00	17,950.00	0	0	0	0	0	0	49,086.00	156,287.00

Notes:

The Paducah Sun
Paducah, Kentucky
ONLINE EDITION Thursday, April 20, 2000 Paducah, Kentucky

Place Your Banner Ad In The Online Edition
Place Your Banner Ad In The Online Edition

KENTUCKY VOTES.com
Polls, Opinions, Comments

PACRO gets aid for plant future

By **David Fraser** dfraser@paducahsun.com--*270.575.8650*

MAYFIELD, Ky.

U.S. Rep. Ed Whitfield (left) and Ric Ladt, who will become PACRO chairman on May 1, talk after the meeting.

Sen. Mitch McConnell brought word that $2 million will be given to the organization trying to prepare the area for life without the Paducah Gaseous Diffusion Plant.

McConnell made the announcement of the federal grant Wednesday afternoon at the annual meeting of the Paducah Area Community Reuse Organization. He and 1st District U.S. Rep. Ed Whitfield attended the meeting along with government leaders from McCracken, Marshall, Ballard, Massac and Graves counties, who make up most of the organization.

Diversity in jobs for the area is what McConnell hopes PACRO will achieve.

"This is about what happens after the plant is gone," he said. "In terms of the government, we are about as well positioned as we could be. ... People are in the right places to apply pressure. ... I am glad to be able to bring you news of the $2 million today. I know you'll spend it wisely.

"Regardless of the fate of this facility, whether it closes or stays open, we have to diversify. For the cleanup, we need to employ the

AP AP/WIRE
NewsChannel 6 WPSD-TV
Paducah ONLINE PADUCAHONLINE

maximum number of people who will get the job done in the shortest time. If the plant goes, then we can move on to what lies ahead for western Kentucky. It's refreshing to see the potential and hear the plans of this organization. This multi-county organization understands we are in this together."

PACRO Chairman and Greater Paducah Economic Development Council President and Chief Executive Officer Kristin Williams said the money is needed, but where it will go is to be determined.

"We'll have to get together and decide that," Williams said. "We have a transition plan. We need to to take a look at the whole program before we make a decision."

During the meeting, Williams summed up the organization's past year.

"At this time last year, we were reporting on the work we were about to embark upon," she said. "We combined two years' activities into one, planning and starting up at the same time."

During the first several months, members fleshed out components of entrepreneurial programs that would complement existing programs. In July, PACRO received a $6 million grant for transition activities from the Department of Energy's Office of Worker and Community Transition. The organization's budget was cut from $8 million, the amount requested.

In September, PACRO was used as a model at the Department of Labor/Department of Energy directors' workshop in Las Vegas.

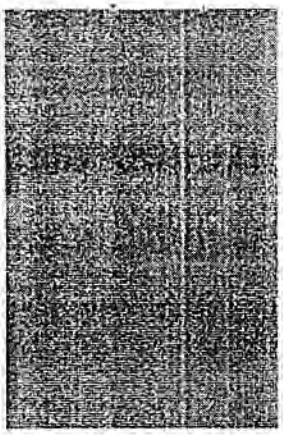
"... Competing interests have a seat at this table," Williams said. "We all listen to one another and respect sometimes differing opinions. This and acknowledging the value we all bring to the process make PACRO stand out from the crowd."

During October, members of the organization said they were interested in developing nickel ingots at the site. A month later, the organization's executive committee approved a $731,195 grant to Metropolis, Ill., to widen the access road into the Metropolis Industrial Park.

Contracts with ELR Consultants as the facility reuse (program) agent and Paul McInturff of West Kentucky Technical College as the workforce director were signed in December. Consultants told PACRO members that western Kentucky is woefully short on product and advised a large-acre industrial site in the area be identified.

"This is not to compete with any local industrial parks; in fact, they would complement each other well," Williams said. "The goal is to identify and provide infrastructure to a regional park that could be the home to the next 'once in a lifetime' location of Mercedes-Benz or Boeing."

In February, Williams said PACRO provided the vital job of getting word of its programs and services to disenfranchised employees. In



March, the executive committee approved a lease for an office in the Paducah Information Age Park.

"In the seven months that the PACRO has been implementing its Transition Plan, $2,480,771 has been sub-granted to four of the five primary counties' local economic development programs," Williams said. "There has been $75,000 allocated to the Regional Marketing Group and $495,639 will be sub-granted within the next five months between the remaining primary county's local economic development program and initial studies into a Regional Industrial Park."

E-Mail this article to a friend.

Powered by eMediaMaker from WCS

The Paducah Sun
Paducah, Kentucky
ONLINE EDITION Thursday, April 20, 2000 Paducah, Kentucky

Place Your Banner Ad In The Online Edition
Place Your Banner Ad In The Online Edition

KENTUCKY VOTES.com
Polls, Opinions, Comments

DOE to add to benefits for layoffs

By **Bill Bartleman** bbartleman@paducahsun.com--*270.575.8650*

The U.S. Department of Energy will announce next week that it will provide enhanced benefits for the 425 Paducah Gaseous Diffusion Plant workers who will be laid off this summer.

"We will be doing something to help the workers," said Walter Perry, a DOE spokesman. "We are just trying to find out how much more we can do. It is likely to involve helping with relocation, medical (benefits), retraining and education benefits."

It is the first confirmation from DOE of an addition to the standard layoff package that will be offered by the U.S. Enrichment Corp., which operates the plant.

The layoffs of the 425 workers in Paducah and 425 workers at a sister plant in Portsmouth, Ohio, are scheduled to take place July 14. The layoffs are a move to reduce costs for financially troubled USEC.

DOE's announcement will come as USEC prepares to begin a three-week period of seeking volunteers willing to be laid off. The volunteer period was to have begun next Monday, but an announcement is expected today that it will be delayed, apparently awaiting the DOE announcement.

U.S. Sen. Mitch McConnell had pushed for DOE to offer enhanced benefits after the Senate failed to approve a supplemental appropriation for DOE and the Paducah plant earlier this month.

Late Wednesday, McConnell, R-Louisville, said he hadn't been notified of the enhancement package by DOE but learned about

AP AP/WIRE
NewsChannel 6 WPSD-TV
Paducah ONLINE PADUCAH ONLINE

Perry's comments from a reporter.

"Before applauding, I want to see what they have in mind," McConnell said. "We look forward to the announcement so that we can confirm that it is a meaningful package, and I hope it will be meaningful."

Perry said details of the package were still being decided Wednesday by top DOE officials in Washington. "We are in the final stages of determining any enhanced package and anticipate making a decision next week," he said. "We are looking at a number of options."

Perry said he didn't know how much the enhancement package would cost.

After the period for layoff volunteers to speak up expires next month, USEC will review the list and decide which volunteers to accept. A USEC representative said that some may not be accepted if they are in key positions that aren't part of the layoff plan.

Once the volunteer list is finalized, USEC will announce the mandatory layoffs of other employees. USEC has indicated that 40 to 48 percent would be union employees, with the rest salaried personnel.

USEC's severance package will pay laid-off workers based on their years of service. The pay for union workers will range from three to 26 weeks, and from 4.3 to 30.4 weeks for salaried employees.

An April 11 memo to all USEC employees from Jim Adkins, USEC vice president of production, said the first consideration in deciding layoffs is plant safety. He said the reductions will not compromise the safe operation of the plant.

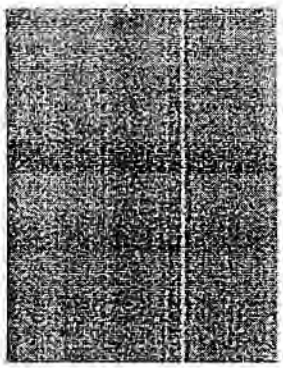
Adkins also said a new organizational structure is being implemented that includes new job descriptions. "The next phase of the process (to decide who will be laid off) involves selecting salaried employees who meet job qualifications and have the requisite skills and competencies needed now and in the future," Adkins said.

McConnell also said he would continue to push for cleanup funds that could provide jobs for some of those laid off. Also, he said the 2001 budget being considered by Congress should include additional funds for a worker severance package.

Also, he said the next budget is likely to include enough money to fund properly a worker medical testing program that began two years ago.

McConnell and others in Kentucky's Washington delegation have been seeking additional funds so that all past and current workers can be tested for potential health problems related to working in the plant. Without additional funds, it would take five years or more to complete the testing.

McConnell also said it is likely the federal government would take over the plant if USEC fails because of financial problems. The



government owned the enrichment operation until 1998 when a plan to privatize the industry was completed.

Changes in market conditions and restrictions placed on USEC since the takeover have caused financial problems. The conditions included restrictions on layoffs and plant closings and requiring USEC to buy nuclear grade uranium from Russia. Others have alleged that the operation has been poorly managed as a private enterprise.

E-Mail this article to a friend.

Powered by eMediaMaker from WCS

The Paducah Sun
Paducah, Kentucky

Place Your Banner Ad In The Online Edition
Place Your Banner Ad In The Online Edition

ONLINE EDITION Wednesday, April 19, 2000 Paducah, Kentucky

FRONT PAGE
NEWS
SPORTS
WEATHER
OBITUARIES
EDITORIALS
COLUMNS
FEATURES
SPECIAL SECTIONS
CLASSIFIEDS
NEWSPAPERS IN EDUCATION
ARCHIVES
CONTACT US
COMICS EDGE
TRIVIA BLITZ
Subscriptions
SUBSCRIPTIONS

KENTUCKY VOTES.com
Polls, Opinions, Comments

Earth Day 2000

Students tour Ballard haven

By **Angie Kinsey** akinsey@paducahsun.com--*270.575.8650*

LA CENTER, Ky.--Don't call Ashley Windhorst a litterbug.

ANGIE KINSEY/The Sun--Back to nature: Brian Chambers, a Heath Middle School sixth-grader, uses his sense of touch to identify a tree.

Windhorst, a sixth-grader at Unity Elementary School in Brookport, Ill., decided to clean up her act after spending a day in nature Tuesday celebrating Earth Day, which is officially Saturday.

"For one, I won't argue with my dad when he wants me to take out the trash," Windhorst said. "And second, when I'm going down the road, I won't throw out something. This is pretty interesting. I learned how water can be polluted and we never notice."

Making kids think about environmental issues is the object behind Earth Day 2000, which continues today at Ballard County Elementary School's new environmental studies area. The event is

FEATURED paducahcars.com
PADUCAH CARS
AP
AP/WIRE
NewsChannel 6
WPSD-TV
Paducah ONLINE
PADUCAH ONLINE

co-sponsored by the U.S. Department of Energy and the Kentucky Department of Fish and Wildlife Resources, and coordinated by Bechtel Jacobs.

About 800 sixth-graders from Ballard County Elementary; Heath, Lone Oak, and Reidland middle schools in McCracken County; Clark and Cooper-Whiteside elementary schools in Paducah, and Franklin and Unity elementary schools in Massac County, Ill., are taking part.

The students visited nine stations, learning about everything from endangered species to recycling. Heath High School sponsored the Hug-a-Tree station, where students led their blindfolded classmates to trees in the forest.

"They have to feel (the tree) and notice all its unique characteristics," Heath senior Natalie Lents said. "The point is to show every tree is different and you shouldn't cut down trees. We relate it to how all people are different and unique and you need to get to know each other."

Unity teacher Debbie Christiansen said the students take the lessons they learn at the event seriously.

"They remember this," she said. "They like it. This is the third or fourth year we've done this, and they always enjoy it so much. We're working on an environmental project right now and part of this will back up what we're working on."

This is the first time Ballard County Elementary has hosted the event at its environmental studies area, a 25-acre tract behind the school that includes wooded areas, a pond and trails. The school has been developing the area for an outdoor classroom, but Bechtel Jacobs has donated money for improvements and for a road that will lead to a new pavilion.

"It was a good fit," said Greg Cook, Bechtel Jacobs public affairs officer. "We get to do the event here, and they get the area established at the same time. Much to my surprise, for a lot of these kids, this is one of the few times they get out in the woods."

Ballard County Elementary teacher Judy Poole said the students have picked up trash and planted wildflowers.

"It's like a dream come true," Poole said of hosting Earth Day 2000. "I think having kids come out and be involved in activities gives them an appreciation and teaches them to have a more active role. It will stick with them more than just reading about this.

"It's just so pretty out here. You can hear animals. You can hear them skittering around the grass and trees."

The Courier-Journal
Tuesday, April 18, 2000 LOCAL NEWS

Are you ready to retire?

U.S. Energy Department is sued over incinerator proposed at Paducah plant

By JAMES MALONE, The Courier-Journal

PADUCAH, Ky. -- Environmentalists sued the Energy Department in federal court yesterday, alleging the agency broke the law by failing to study the full impact of a controversial waste incinerator at the Paducah Gaseous Diffusion Plant.

Though it is not yet built, the Vortec incinerator "threatens to dump airborne radioactive and hazardous waste over Western Kentucky and Southern Illinois," said the complaint filed by the Regional Association of Concerned Environmentalists. Vortec officials insist the project is safe and benefits the environment.

The suit seeks an injunction stopping further progress on the incinerator until the government has complied with environmental regulations.

"We're simply requiring DOE to comply with their own federal regulations regarding Vortec," said Tod Megibow, a Paducah lawyer who filed the suit.

Energy Department officials last week said they were scaling back the Vortec project - which was supposed to cook about 40,000 barrels of soil tainted by low levels of hazardous or radioactive waste into blocks of inert glass. But the incinerator will still be built to its original size and configuration, said local project manager Norm Jetta.

New regulations will allow the Energy Department to ship the materials to a distant landfill more economically, agency officials said last week. The department said it still wants to test undefined aspects of Vortec, but not on a broad scale.

Plaintiffs say the incinerator could be handling materials with "highly toxic" combinations of heavy metals, uranium and plutonium. Cooking them to ultra-high temperatures could create new compounds and release them into the environment, the suit alleges.

"Clearly (Vortec's) proximity to park lands, wetlands and prime farmlands is significant," the lawsuit said.

Foes also have complained that public input was excluded. From the beginning, the Energy Department has "attempted to avoid the public and scientific scrutiny" the project requires, the suit alleged.

One of the Energy Department's main failings is that it has not, under the National Environmental Policy Act, studied Vortec's cumulative effects on the

environment, said Mark Donham of Brookport, Ill., one of the plaintiffs.

Some of the 200 members of the environmental group are farmers whose land could be threatened by discharges, the suit said.

Another plaintiff, Ronald Lamb, lives near the Paducah plant. The government condemned Lamb's drinking-water well because it was contaminated by radioactive material leaking from the plant.

Donham also alleged that the Energy Department neglected to consider alternatives to Vortec.

After about five years and about $30 million, the Vortec project still is not built. Part of the delay resulted from an earlier court challenge on essentially the same grounds. It was resolved when the Energy Department agreed to a limited assessment of Vortec's environmental impact before more money was spent on ordering its equipment.

Last month, Energy Department officials said the project would not have a significant impact on the environment, which appeared to clear the way for the project's resumption. But then, an internal report surfaced that recommended that Vortec be abandoned because of its uncertain future.

The Energy Department did not have a spokesman available for comment to discuss the suit late yesterday afternoon.

BACK TO NEWS DIGEST TO NEWS ARCHIVE

All pages © 1998-99 Terms of Service
Send questions and comments to The Webmaster

The Paducah Sun
Paducah, Kentucky

ONLINE EDITION Sunday, April 16, 2000 Paducah, Kentucky

KENTUCKY VOTES.com
Polls, Opinions, Comments

DOE site board to meet

The Paducah Gaseous Diffusion Plant Citizens Advisory Board will meet from 5:30 to 8:30 p.m. Thursday in the Resource Center at the Paducah Information Age Park.

The agenda includes project status reports and various administrative issues. For more information, call 744-9010. The board is a local advisory committee charted under the Department of Energy Environmental Management Site Specific Advisory Board.

E-Mail this article to a friend.

Louisville Courier-Journal
April 14, 2000

Page B1

Incinerator test to be scaled back

Study proposed killing Paducah plant project

By JAMES MALONE
The Courier-Journal

PADUCAH, Ky. — The Energy Department told Sen. Jim Bunning yesterday that it will scale back a test of the controversial Vortec incinerator at the Paducah Gaseous Diffusion Plant.

The Energy Department has put about $30 million into the incinerator, which backers say can melt low-level hazardous waste into inert blocks of glass.

The Courier-Journal reported two weeks ago that an internal study by the Energy Department had recommended against continuing funding for the project. The study found that it could cost $26 million more to complete the demonstration and that there was no sure timetable for getting it on line.

Asked what part of the project the Energy Department intends to support, Norm Jetta, Vortec site manager at Paducah, said, "I wish I knew."

Jetta said Vortec has not gotten any official notification from the Energy Department.

In a letter to Bunning, Assistant Energy Secretary Carolyn Huntoon said new regulations permit the Department of Energy to affordably haul the waste to an off-site disposal facility.

So there is justification to continue Vortec only on a "limited scale" to pre-treat and "condition" some wastes, Huntoon wrote.

Bunning called the Vortec decision "just another example

See PADUCAH
Page 2, col. 5, this section

Continued from Page B 1

of the (Energy Department's) inability to follow through on their promises to the community of Paducah. On July 20, Secretary (Bill) Richardson wrote me a letter in which he expressed support for the project and anticipated completing the demonstration next year."

Criticizing Richardson, Bunning said, "Every time I meet with (him), he makes promises to me, the workers and to the Paducah community. Inevitably, those promises are broken."

The Vortec project has been slowed by a lawsuit from environmentalists, which prevented some equipment from being ordered while the Energy Department conducted a $250,000 environmental analysis. In March, the Energy Department said it found that Vortec would not have a significant impact on the environment.

Yesterday, Mark Donham of Brookport, Ill., who sued to stop Vortec, said he is still skeptical of the Energy Department's intentions and will not rule out another court challenge. If the plant is built, the Energy Department will find ways to use it, he said.

Donham said he also questions the plan to send waste elsewhere.

"Every time I meet with (Energy Secretary Bill Richardson), he makes promises.... Inevitably, those promises are broken."

U.S. Sen. Jim Bunning

"I'm a little uncomfortable with shipping this material off site," he said. "It dumps liability on another community. We could consider other options for the waste here, such as mixing it with concrete or building better storage facilities."

Jetta, the Paducah Vortec manager, said he assumes the company will go ahead and erect a full-size plant because most of the equipment is on site, but he doesn't know for sure. Energy Department officials were not available for comment late yesterday afternoon.

"We will be trying to develop a strategy as to what we will propose to the Energy Department," Jetta said. Shipping out the material "creates more problems. There may be wrecks or leaks. We have a solution, and we could put it into a landfill here."

The Paducah Sun

Paducah, Kentucky

ONLINE EDITION Thursday, April 13, 2000 Paducah, Kentucky

Place Your Banner Ad In The Online Edition

Place Your Banner Ad In The Online Edition

FRONT PAGE
NEWS
SPORTS
WEATHER
OBITUARIES
EDITORIALS
COLUMNS
FEATURES
SPECIAL SECTIONS
CLASSIFIEDS
NEWSPAPERS IN EDUCATION
ARCHIVES
CONTACT US
COMICS EDGE
TRIVIA BLITZ
Subscriptions
SUBSCRIPTIONS
paducahcars.com
PADUCAH CARS
AP
AP WIRE
NewsChannel 6
WPSD-TV

KENTUCKY VOTES.com
Polls, Opinions, Comments

DOE plan to expand sick benefits

Workers with radiation-induced cancers may now recover lost wages, a year's medical benefits and job retraining.

By **Joe Walker** jwalker@paducahsun.com--*270.575.8650*

Department of Energy officials say a sweeping new plan to help at least 3,000 sick defense plant workers nationwide expands a benefits program announced last fall for current and former Paducah Gaseous Diffusion Plant employees.

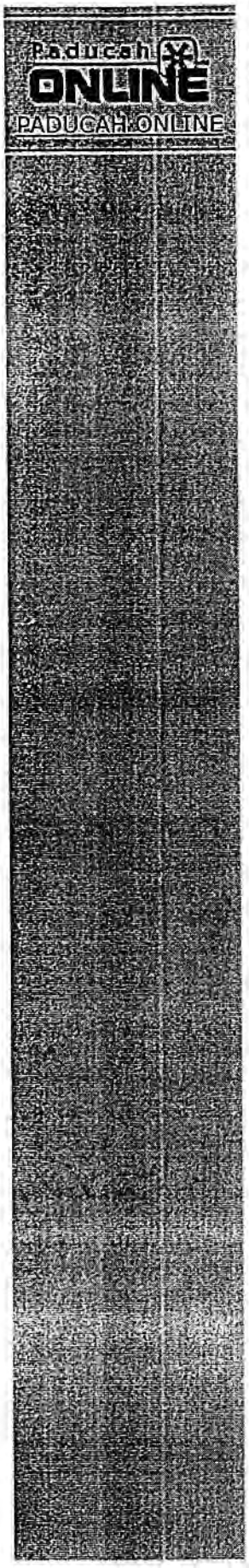
Workers already eligible for a $100,000 lump-sum payment for specific radiation-induced cancers such as leukemia may now get more by meeting certain exposure thresholds, said Dr. David Michaels, assistant secretary of environment, safety and health. Depending on the extent of exposure, those people could receive lost wages, a year's medical benefits and job retraining, which would be worth more than $100,000, he said.

That part of the change must still be approved by Congress in a program expected to cost about $120 million annually during the first three years of full operation. Yearly costs would drop to about $80 million as a claims backlog lessens, DOE says.

Michaels and Energy Secretary Bill Richardson made the announcement Wednesday in Washington. In a telephone press conference later, Michaels said a second component — advocating state workers' compensation claims for those with other occupational diseases — will start immediately without the need for legislative action. That also will expand the benefits program at Paducah, he explained.

Few workers' compensation claims have been filed against the plant because the government has fought them and because Kentucky law immunizes primary plant contractors from negligence actions arising from regular business. Under the new program, DOE will tell contractors not to contest such claims for eligible workers identified by independent doctors.

"We'll just step back and pay the bill," Michaels said.



He said the program will begin next month by establishing regional or plant Occupational Illness Compensation Office centers for such claims. By then, a toll-free number will be available for workers to call for assistance, Michaels said. Details are available on the DOE Web site at Department of Energy: www.doe.gov.

While praising the historic overall compensation program, the plant atomic workers' union blasted DOE for using state workers' compensation programs to pay claims for other illnesses caused by toxic chemicals, heavy metals or silicon dust.

"This is naive, if not unworkable. DOE lacks credibility and independence to advocate for workers when they are liable for paying out compensation," said Richard Miller, Washington-based policy analyst for the union. "Given its history of mounting scorched-earth defense against workers, promoting DOE as an advocate for workers' comp claims against its contractors is like promoting a child molester to start a day-care center."

Others also spoke less than glowingly about the new program. U.S. Sen. Mitch McConnell, R-Ky., who has repeatedly questioned Richardson's sincerity and the lack of funding to back it, said the Clinton administration "has put new wrapping paper on an old package" that is late in coming.

"The provisions in this 'new' plan were announced months ago. It wasn't enough then, and it's still not enough now," McConnell said. "Workers at Paducah and other plants have been stricken with cancer and other life-threatening diseases because of DOE's lax radiation safety controls, and at the very least we owe these victims health-care benefits to cover the expense of their treatment."

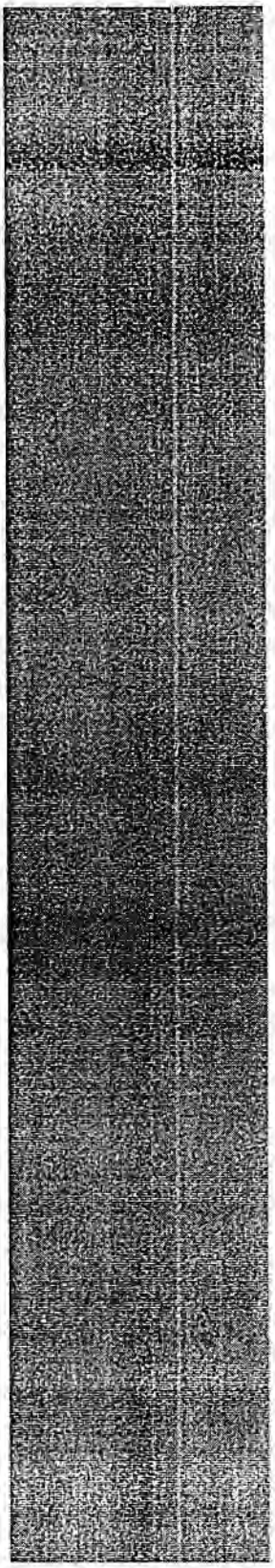
McConnell and 1st District U.S. Rep. Ed Whitfield, R-Hopkinsville, said they support legislation for more help. Whitfield is working on a larger proposal to provide medical care and $200,000 to ill workers at all weapons plants.

The DOE plan also expands compensation for government and contract workers with lung illnesses related to breathing or ingesting dust from beryllium, a highly toxic metal. Subject to congressional funding, they may now choose $100,000 or compensation including medical costs, lost wages and retraining. Medical costs include prescriptions, treatments and travels costs.

When the $100,000 lump-sum program for beryllium disease was announced last year, DOE said there was no evidence of beryllium at Paducah. Since then, the department has admitted that beryllium probably was in nuclear weapons parts milled for precious metals at the plant during the Cold War.

Earlier this year, the Sun reported that traces of beryllium were found in more than 100 groundwater samples at and near the plant during the past decade. Most of the findings were near scrap yards and a building where the recovery of precious metals reportedly took place.

Dr. Steven Markowitz, an epidemiologist heading a health study of enrichment plant workers, said earlier that beryllium testing could



easily be added if DOE provides specific information to identify target groups. The study has mainly dealt with radiation exposure.

"We certainly think there could be beryllium exposure, because we found beryllium (at Paducah)," Michaels said Wednesday. "But we don't know if there is any beryllium disease. We'd like to find that out."

DOE officials anticipate that about 3,000 workers in 10 states — 1,500 with cancer, 750 with beryllium disease and the rest with other illnesses — will receive benefits. Michaels said he is unsure how many workers at specific sites such as Paducah will be eligible.

Richardson's announcement, which expands coverage to Paducah's sister plant near Portsmouth, Ohio, follows a White House panel's conclusion that toxic and radiation exposure probably caused many workers at the nuclear weapons plants to contract lung cancer and other serious illnesses.

The proposal assumes workers were exposed to the highest expected level of radiation associated with their jobs if actual medical records are unavailable.

While the panel said the evidence did not in all cases show a direct causal link between workplace exposures and specific illnesses, it found that workers at the plants suffered higher than normal rates of a wide range of cancers and that they clearly were exposed to cancer-causing radiation and chemicals in the workplace.

The studies examined health records and other data covering three decades of the Cold War, and officials emphasized the findings do not relate to working conditions at the plants today.

The report said elevated rates of 22 categories of cancer were found among workers at 14 facilities in the department's atomic weapons complex. They included leukemia, Hodgkin's lymphoma and cancers of the prostate, kidney, salivary gland and lung.

President Clinton ordered the review after DOE concluded the government should compensate workers who had developed beryllium disease. Richardson and the White House wanted to know if other nuclear weapons plant workers likewise should be compensated because of exposure to plutonium, uranium and many other radioactive or highly toxic substances. The interagency group reviewed dozens of epidemiological studies, raw health data and other documents, many of which in the past have been dismissed by the government.

The Associated Press contributed to this report.

E-Mail this article to a friend.

Powered by eMediaMaker from WCS

McConnell takes DOE to task for discrepancies

■ **Senator tries** *to pin directors down on cylinder contamination and budget allocation.*

By Joe Walker
Sun Business Editor

The head of the Department of Energy's nuclear energy program says he is surprised and unsure why foreign plutonium and similar highly radioactive contamination are in newer cylinders of uranium hexafluoride waste stored at the Paducah Gaseous Diffusion Plant.

William Magwood, director of DOE's Office of Nuclear Energy, Science and Technology, told Sen. Mitch McConnell last month that the contamination was found in cylinders generated in 1988 and 1993. The department had previously thought the material was limited to cylinders generated before 1980, when the plant processed uranium contaminated with plutonium and other elements from spent reactor fuel from facilities in the United States.

On Tuesday, Magwood told a Senate subcommittee that he suspects the contamination came from the foreign research reactors, "but we are not really certain of that," Magwood said the matter is under investigation.

DOE officials have told congressional sources they believe the material went from either foreign research or nuclear power reactors to the department's Savannah River nuclear fuel plant in South Carolina. From there, the fuel was reprocessed and sent to Paducah.

McConnell

The Savannah River plant was a chief source of contamination in domestic spent fuel received at Paducah before 1980.

During the congressional hearing, Magwood responded to questions from McConnell, a member of the Energy and Water Subcommittee on Appropriations. McConnell asked Magwood to explain why the contamination is in newer cylinders.

"I am not being facetious, but that is really a good question," Magwood said. "We have been trying to figure that out. It is something that was something of a surprise to my office."

A DOE investigation has shown that workers in certain areas of the plant were exposed to the plutonium and similar radioactive substances. Two federal lawsuits allege the exposure was intentional because plant contractors placed production ahead of safety.

In the hearing, McConnell expressed concern that a project to convert the waste into safer material is mired in government bureaucracy. DOE expects to award a contract about a year from now for the conversion facility, which would help offset some of the 425 job cuts that USEC is planning to start this summer, Magwood said.

DOE officials have said the project was delayed because of concerns about the contamination and the risks it poses to conversion workers. But lawmakers and the plant atomic workers' union say would-be contractors have no significant concerns about the contamination.

"They (DOE officials) are using that as an excuse," said a chief legislative assistant, speaking on condition of anonymity. "That doesn't alter the technology or engineering, just the protection for workers and some of the processes needed."

McConnell said in the hearing that despite Energy Secretary Bill Richardson's promise to build the facility, DOE has allotted only a third of the $60 million needed for design work. He said he was disappointed that Richardson has offered only half of the $24 million pledged last year.

Magwood denied that Richardson has backed out of his commitment. He said the level of funding is "just about right," considering the delays regarding contamination. The $60 million, or the balance needed for design, must be budgeted in fiscal 2002, Magwood said.

McConnell asked Magwood why only $12 million was budgeted for conversion when Richardson promised last year to commit $21 million from the sale of enriched uranium from DOE stockpiles.

"Is this a budget sleight of hand or what?" McConnell asked. "How do you explain that?"

Magwood said the department is deferring use of the money but could not explain why the $21 million was not budgeted.

His office controls $10 million to paint, inspect and otherwise maintain the cylinders from 2002 to 2010. McConnell asked why that money could not be used immediately to provide enhanced severance to displaced workers, increase worker health testing and accelerate the conversion project.

Magwood said he had "not heard that idea come up" but would discuss it with Richardson. Because it will take 25 to 30 years to convert all the material (Paducah has about 37,000 cylinders), a balance is needed between maintenance and conversion, he explained.

Another witness was Dr. Carolyn Huntoon, DOE assistant secretary of environmental management, who oversees $1.6 billion in funds to clean up contaminated buildings and other facilities at enrichment plants in Paducah and two other cities. She told McConnell she was unaware of a reason that some of the money could not be used for the conversion project.

"It is hard to imagine a reason why the 57,000 cylinders (the 20,000 others at plants in Portsmouth, Ohio, and Oak Ridge, Tenn.) of depleted uranium should not be transferred to your office immediately, is there?" McConnell asked.

"Well, I guess there is no reason why we should not consider it," Huntoon answered.

McConnell turned to a draft General Accounting Office investigative report that he said alleges DOE has "purposefully ignored" many of 148 hazardous and radioactive waste storage sites at the Paducah plant. He said several of the sites pose a risk of an uncontrolled nuclear "criticality" reaction and the material makes up a million cubic feet of uncharacterized waste.

The senator asked Huntoon why the sites, including 9,000 drums of low-level radioactive waste, are not part of the plant's overall cleanup plan and why only 13 of them are being studied.

Huntoon said she understands the waste perhaps was "scavenged from the closure of other facilities and brought (to Paducah) for use." Material not needed by past plant contractors was turned over to Magwood's office, which is not part of environmental management, she explained.

Huntoon said the issue of who controls the storage areas must be addressed in responding to the GAO report. She promised McConnell she would study the cost, schedule and best way to clean up all the sites.

The Paducah Sun
Paducah, Kentucky

Miss Your SunSix Content? Switch and Save!
Miss Your SunSix Content? Switch and Save!

ONLINE EDITION Sunday, April 09, 2000 Paducah, Kentucky

KENTUCKY VOTES.com
Polls, Opinions, Comments

CYNICAL SHOW

Richardson's promises political, false

By **Jim Paxton** jpaxton@paducahsun.com--*270.575.8650*

If Al Gore wants half a chance of carrying the state of Kentucky this fall, perhaps he should consider making an honest man of Bill Richardson.

Last fall, amid an accelerating cascade of disclosures that workers at the Paducah Gaseous Diffusion Plant have been unwittingly exposed to plutonium and other potentially lethal substances, Energy Secretary Richardson rode in on the proverbial white horse.

Yes, he said, the government's indifference to worker safety and environmental harm at the Department of Energy's Paducah operation was indefensible. As the TV cameras rolled and a large local audience listened, Secretary Richardson pronounced:

"It's time for the federal government to accept its responsibility. Under this administration, the government won't be working against you. We'll be working for you."

The energy secretary vowed to add some $7 million of DOE money to speed up an ongoing health screening program for Paducah enrichment workers to determine whether any had suffered harm and were entitled to compensation. He promised that the government would be quick to compensate any worker (or if deceased, their families) for work-related harm. And off he road, national media in tow.

As we noted in an editorial the following January, while people in this region are by nature skeptical about government, everyone wanted to give Secretary Richardson the benefit of a doubt. That proved to be folly. The promised $7 million never materialized in the

NewsChannel 6
WPSD-TV
Paducah ONLINE
PADUCAHONLINE

DOE budget. Congress then ordered DOE to allot the money from the agency's discretionary funds. DOE claimed it does not have any money to spare.

This of course is patently untrue. As we observed in that same January editorial, a summary of DOE's spending plans for this year proposed $1.5 billion for its Tennessee operations; $2.8 billion for DOE activities in Richardson's home state of New Mexico; and all of $49 million for its Kentucky operations. Clearly the secretary did not put his money where his mouth is. And it's also clear that an extra $7 million for a worker health study is chump change for DOE. But it apparently is too much, in DOE's view, to spend on workers in Paducah.

Shortly after our January editorial the energy secretary issued a new pledge: $11.3 million for Paducah, of which $8 million would be for accelerated environmental cleanup (which, it was hoped, would provide jobs to offset a reduction of 450 Paducah enrichment jobs planned in June by United States Enrichment Corp.) and $3.3 million to speed up the aforementioned worker health study.

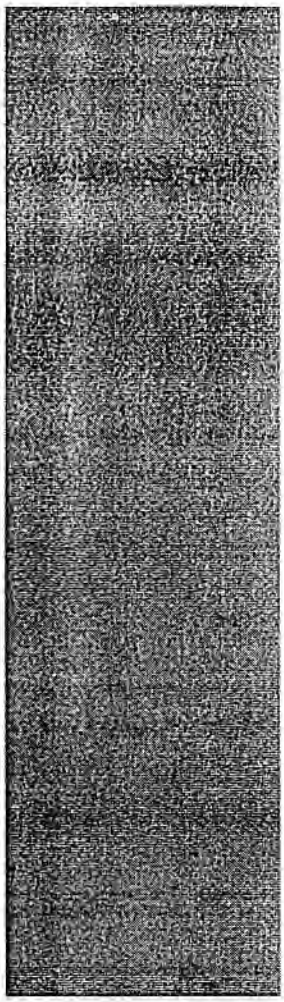
Again, however, DOE took the position that the secretary had promised Paducah money the agency simply does not have. Frustrated, our congressional delegation sought to obtain the money as part of a supplemental appropriations bill. That bill went down in flames last week when, as happens with some predictability in Congress, initial total appropriations of $5.1 billion ballooned to $12.7 billion after various members loaded it up with pork. Seeing this, Republican Majority Leader Trent Lott killed the entire bill. Philosophically we do not disagree with his reasoning.

Meanwhile it was revealed that DOE insiders also want to kill the VORTEC program for recycling contaminated materials at the Paducah DOE site. The process converts contaminated enrichment residue into a glass-like substance that is stable and much easier to safely dispose of. A demonstration plant has been designated for the Paducah DOE site, which again would soften the blow of USEC layoffs by providing at least a handful of new jobs. Secretary Richardson is on record as supporting the project.

However, DOE now says VORTEC is — you guessed it — too expensive. Instead the agency is considering simply burying the stuff here and letting Paducah worry about it for the rest of eternity.

"It's time for the federal government to accept its responsibility. Under this administration, the government won't be working against you. We'll be working with you and for you."

Sure rings hollow now, doesn't it? Do you wonder why? We are increasingly of the view that this entire escapade has been nothing



more than a cynical political show. We are the largest community in the bellwether district of a bellwether state in a presidential election year. Bill Richardson himself has been mentioned more than once as a possible Al Gore running mate.

It adds up. Gore's point man rides in on a white horse, proclaims this administration will right past wrongs against workers, pay compensation, speed environmental cleanup, and generally make things right. Good Democrats, helping workers, fighting evil corporations.

But when push comes to shove, not a dime of the promised money is seen here. DOE is even angling to turn its site here into a nuclear landfill, not just for us, but Oak Ridge and Portsmouth, from whence much of the contaminated material now at the Paducah site was trucked in.

Oh, and let's not forget that every single one of the 450 USEC layoffs in Paducah this summer will be a direct result of the Clinton administration's conscious decision to foist the economic impact of the Russian uranium deal squarely on the backs of American enrichment workers.

Gees, and we had always heard it was the Republicans who are anti-labor and anti-environment. How times change.

E-Mail this article to a friend.

Powered by eMediaMaker v2.5 from WCS

New site manager tries to mend DOE credibility

■ **Don Seaborg** *tells business leaders at the chamber breakfast that the nightmare is 'going to end sooner than you think.'*

By Joe Walker
Sun Business Editor

New Department of Energy Site Manager Don Seaborg said he was reminded how infamous the Paducah Gaseous Diffusion Plant has become when a woman told him she read about it in a newspaper in Timbuktu.

The brunt of many sayings, Timbuktu is a remote town in West Africa, half way across the world from Paducah.

Seaborg, on the job here for three weeks, inherited a plant that is the centerpiece of two federal lawsuits and government investigation into alleged environmental, safety and health wrongdoing, as well as USEC Inc., the financially troubled uranium enrichment company that will cut 425 more jobs starting in July.

"You're living a nightmare right now," Seaborg told business leaders Thursday at a Paducah Area Chamber of Commerce breakfast. "But it's going to end, and it's going to end sooner than you think."

Despite the avalanche of publicity, the chamber is confident that "no business has been lost" to the upcoming quilt festival, said chamber President Elaine Spalding. Kristin Williams, head of the Greater Paducah Economic Development Council, said the plant news had not hindered industrial recruitment, either.

Seaborg came to Paducah from a DOE plutonium finishing plant in Hanford, Wash., where he managed deactivation and stabilization work. While considering the Paducah job, it became apparent that Paducah's experience was very similar to Hanford's, he said.

Hanford had operated since 1951 and handled hazardous and radioactive material, notably plutonium, he said. (Lawsuits allege and DOE acknowledges that plutonium contamination at Paducah came from spent reactor fuel from Hanford).

"We had a history of, frankly, not very good operating practices," Seaborg said, citing two explosions and environmental contamination that threatens Hanford's groundwater and a nearby river. Like Paducah, Hanford also had much attention from state governments, citizen groups and the press, he said, and is a significant contributor to the economy.

Don Seaborg
Wants chamber involvement

"In reality, Paducah is like a microcosm of the whole experience of what we're seeing at Hanford," Seaborg said.

A rash of publicity that followed the last Hanford chemical explosion finally subsided, he said, as it did at DOE's Brookhaven National Laboratory in Long Island, N.Y, where there were tritium releases from a nuclear reactor and claims of mismanagement. The department fired the Brookhaven contractor in a precedent-setting move, he said. The Hanford and Brookhaven incidents took place in 1997.

"As a result there have been significant improvements in how the department and its contractors respond to emergencies at their facilities, how we are involved in the community and how we communicate with the necessary leadership in those situations," Seaborg said.

But he admitted his most daunting task here is trying to rebuild DOE credibility because of allegations of poisoning workers and the public, as well as perceived foot dragging and underfunding of environmental cleanup.

"I share that perception. I share that conviction," Seaborg said. "Our credibility is very bad. In fact, it's probably the biggest problem that I have to work on."

He said his goals are to improve communications by being more visible in the community, perhaps by holding regular briefings with the press and other interested people. He said he also is considering improving the DOE Environmental Information Center at Kevil.

Another priority is working with investigators of the departments of justice and defense, and the DOE inspector general, he said. Dale Jackson, who preceded Seaborg as acting site manager, continues as point man for the investigation, he said.

"We have a responsibility to support those investigations that are going on right now," Seaborg said.

Finally, cleanup must be accomplished faster and more cheaply than in the past, he said.

Rethinking work at Hanford helped tremendously, he said. "It was just a vastly improved project and we had knocked a million dollars off the cost of decommissioning that facility and taken off more than 10 years from the completion date.

"I'm looking forward to opportunities to do that here at Paducah. I'm not so sure the gains will be that dramatic. I don't want to give you the impression we can see that. I don't know. Maybe we can."

He said many of the funding pledges made by Energy Secretary Bill Richardson "are outside of his control," but are before Congress for action. Even though some have not been endorsed by Congress, "we are still hopeful we can get some of the funding very soon."

Seaborg said he knows the community is worried about the new round of job cuts, and he "can't promise" that all displaced USEC workers will be absorbed by DOE environmental work.

"Quite frankly, it's primarily because the skill mix is not quite what is needed," he said. "It's not just a money issue. It's a skill-mix issue."

The site office will continue supporting the DOE-sponsored Paducah Area Community Reuse Organization, whose tasks include developing retraining for workers and creating other job opportunities, Seaborg said.

DOE has received plenty of criticism for delaying the start of a job-producing project to convert 37,000 cylinders of uranium hexafluoride at the plant to a safer, potentially more marketable material. Seaborg said the delay is because the department wants to be sure how many cylinders might contain traces of plutonium and other highly radioactive contaminants. A request for contract proposals is anticipated by this fall, he said.

Seaborg said the chamber can help by staying involved, talking, becoming better informed about complex environmental issues, and holding him "accountable" for cleanup.

"Clearly," he said, "we need to do it better and move faster."

The Paducah Sun

57°F Paducah, Kentucky

Miss Your SunSix Content? Switch and Save!

Miss Your SunSix Content? Switch and Save!

ONLINE EDITION Saturday, April 01, 2000 Paducah, Kentucky

KENTUCKY VOTES.com
Polls, Opinions, Comments

Plant cleanup underfunded, Bunning says

The senator says the DOE budget has $78 million in cleanup money this year, but the agency estimates cleanup costs to average $124 million a year during the next decade.

By **Joe Walker** jwalker@paducahsun.com--*270.575.8650*

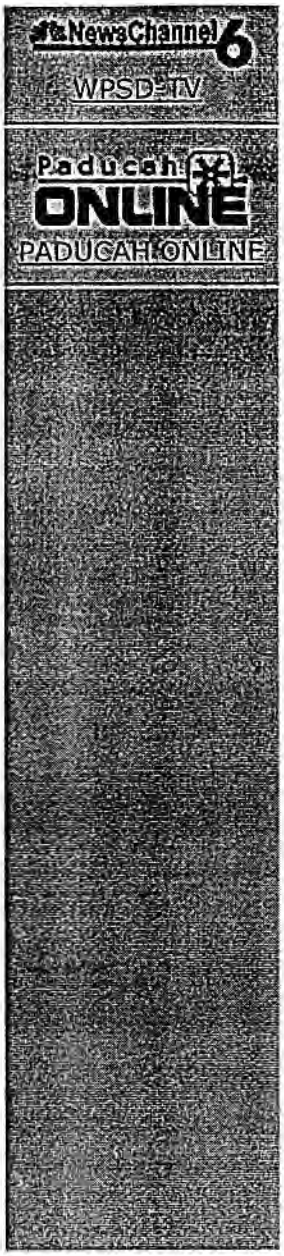
A General Accounting Office investigative report slated for release in April will say that the Department of Energy has seriously underestimated the cost of cleaning up the Paducah Gaseous Diffusion Plant, U.S. Sen. Jim Bunning, R-Kentucky, says.

Although the DOE budget has $78 million in cleanup money this year, the agency estimates cleanup costs to average $124 million a year during the next decade, Bunning said Friday during a congressional hearing. It will take $700 million to $1.2 billion to clean up the plant by 2012, DOE says, but Bunning says the shortfall will push that back to 2021.

"The preliminary GAO report makes it fairly clear that the DOE is still shortchanging Paducah and the people who have lived and worked there," Bunning said. "And I hope that this committee will not tolerate that."

Aside from a brief appearance by one other senator, Bunning was alone for a subcommittee hearing of the Senate Energy and Natural Resources Committee. DOE witnesses included Carolyn Huntoon, assistant secretary for environmental management; David Michaels, assistant secretary of the Office of Environment, Safety and Health; and William Magwood, director of the Office of Nuclear Energy, Science and Technology.

The senator asked Huntoon how DOE expects to fill the gap between planned and needed cleanup money. She answered that funding



varies yearly based on the department's baseline plan for cleanup, the availability of technology and money, and arising environmental problems.

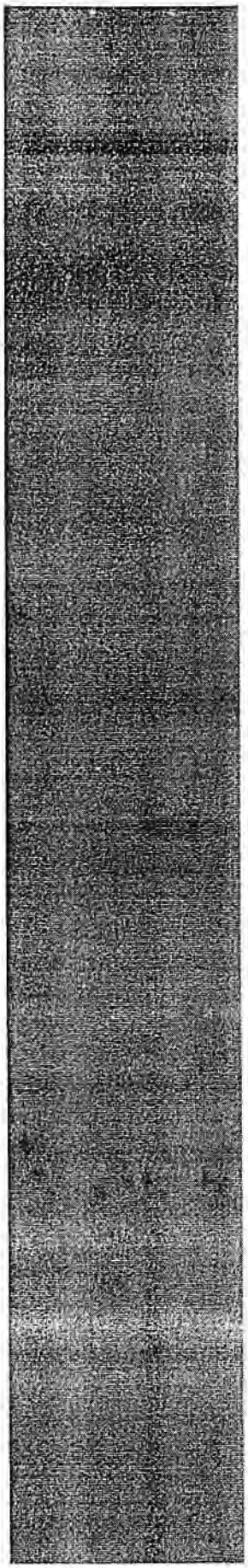
"... You're telling me that the cleanup money and technology are not there. And I'm telling you that's not satisfactory," Bunning said. "We owe a better work ethic to get it done, and the sooner the better. Don't tell me that we don't have enough money. We do have enough money. It's a question of the administration's requesting what is needed."

Bunning asked Magwood why Energy Secretary Bill Richardson has not kept a promise to provide another $46 million in cleanup funding this year, including $24 million from a special account transferred to DOE by plant operator USEC Inc. Bunning said only $17 million was provided and $5 million of that is in the 2001 budget.

"There's enough money to meet all the commitments," Magwood said. "It's just a question of exactly where we apply all those resources."

Magwood said the additional money isn't needed yet because DOE is nine months behind in a plan to build a facility at the Paducah plant to convert about a half-million tons of uranium hexafluoride waste into safer, more useful material. Work was delayed because many prospective contractors were worried about how many of the 47,000 waste cylinders might contain contamination of plutonium and other highly radioactive substances, he said.

Sampling expected to be finished by summer suggests that a limited number of the cylinders could be contaminated. That allows DOE request contractor proposals by October, Magwood said, "so the money will be used for what the secretary promises ..." The conversion plant is expected to cost at least $1.5 billion.



Bunning also asked why work on a test incinerator called Vortec, which converts hazardous, radioactive soil into a glasslike material, is stalled after Richardson assured him it would be finished by 2001 with the right environmental approvals. Bunning cited a Friday story in The Courier-Journal that says DOE wants to scrap Vortec after four years as being too costly.

Although Vortec is promising, new federal regulations allow low-level contaminated soils to be buried in approved landfills, Huntoon said. DOE has not decided to abandon Vortec but is "in a quandary right now" in comparing the cost of burial with that of Vortec, she said.

The project has already cost $30 million and will require $15 million to $20 million more to convert a tenth of the 50,000 barrels of waste at the plant, Huntoon said.

Bunning wanted to know if groundwater contamination from the plant has reached the Ohio River and the "health implications" of that.

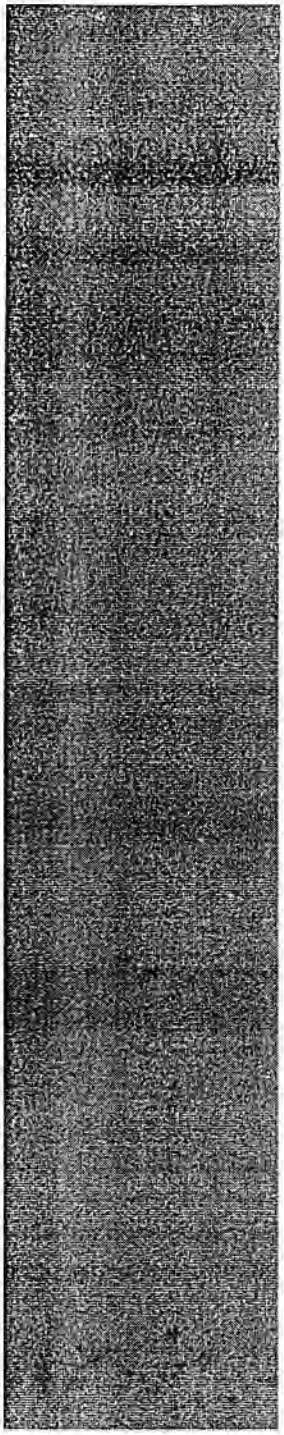
Based on data from many test wells north of the plant, "there is no reason to think it hasn't reached the Ohio River," Michaels said, but the hazards are low because of the vast volume of the river and DOE has replaced all the water in the threatened homes with free municipal water.

Because river contamination is a long-term concern, DOE must clean up sources of pollution such as the plant's C-400 cleaning building that for many years discharged the degreaser trichloroethylene, Michaels said. Removing the source will be very difficult and might require razing the building, he and Huntoon said.

The plant is pumping and treating the groundwater to lessen the heaviest concentrations, but DOE says that is not a final solution. Bunning said the GAO report says an experimental system to "filter" contamination has never been tried at Paducah's groundwater depth, and DOE and regulators disagree on how clean the water should be.

DOE recently acknowledged the presence of disarmed nuclear weapons parts in landfills and other areas of the plant. "How certain is DOE that it knows what is in these burial grounds and their potential impact on future contamination?" Bunning asked.

Bob DeGrasse, a DOE defense programs administrator, said the Energy and Justice departments are investigating and answers won't be known for about six months. He said details could not be discussed without Department of Justice attorneys present.



"We will see to it that you get an opportunity to express yourself at an executive session with the Department of Justice being present," Bunning said.

A second panel of witnesses included John Driskill, president of the plant guards' union, and Keith Dinger, a leading official of the National Health Physics Society, which specializes in radiation safety.

Driskill said the plant security has been wrongly downgraded, especially considering recent revelations about classified nuclear weapons parts. What he called a systematic lowering of security has taken place since 1993 despite the strenuous objections of the union and others. Some security employees have been fired or disciplined for speaking out, Driskill said.

Driskill called for an independent investigation by people, unlike DOE officials, "who do not carry the baggage of past mistakes." He also said that DOE's Oak Ridge, Tenn., operations office, which oversees Paducah, frequently disregards orders from DOE headquarters in Washington.

"The way they operate is like the Pentagon issuing an order and then the commander at Fort Campbell deciding he doesn't like that order and he's going to go his own way," Driskill said.

Findings of the latest DOE investigation — that of worker safety and environmental practices from 1952 to 1990 — were revealed in February. Dinger said he reviewed the report before testifying. Assuming it is accurate and truthful, "there is reason to believe that most workers were not exposed to unsafe conditions" even though the report identified many problems, he said.

Dinger said the only way to determine actual risk is to know the type and level of workers' radiation exposure. He commended a current exposure assessment project by DOE but said the department has not done a good job telling workers "when hazards do not exist."

E-Mail this article to a friend.

Powered by eMediaMaker from WCS

The Paducah Sun
Paducah, Kentucky

QUALITY ADVERTISING THAT GETS RESULTS
QUALITY ADVERTISING THAT GETS RESULTS

ONLINE EDITION Friday, March 31, 2000 Paducah, Kentucky

KENTUCKY VOTES.com
Finally! A place to be heard.

Nickel ingots not the only concern in classified burial area

EDITOR: Recently there was a story covering the nickel ingots in The Paducah Sun that might have misled readers. While I don't hold The Paducah Sun accountable for the information contained therein (it was probably based on information forwarded by individuals at the site), as a former site investigator, I do want to outline the facts as I understand them.

To substantiate the following information, I have forwarded copies of relevant internal documents to the Sun.

The article stated that the ingots contained only trace amounts of transuranics and technetium. In fact, internal studies found that all of the ingots contain technetium, some with levels in the 50,000 parts per billion range. Reporting that the ingots had only trace amounts of contamination implies that these materials and the processes that generated them were largely benign and present no tangible risk. Nothing could be further from the truth as indicated by "the rest of the story."

The contaminated nickel and aluminum ingots largely represent the final form of scrap diffusion plant material from the big diffusion rebuild efforts at the three diffusion sites. The bulk of these metals came from the replacement of compressor and converter units. Prior to the rebuild, several studies noted that a grayish material that accumulated in these units contained, among other things, high levels of transuranics and technetium. This material (called "cosmic dust"

FEATURING paducahcars.com PADUCAHCARS
AP AP WIRE
NewsChannel 6 WPSD-TV
Paducah ONLINE PADUCAH ONLINE

by some at the PGDP), represented one of the greatest exposure risks to workers who disassembled and cleaned the units and handled the resultant materials.

After the initial tear down and shredding of scrap materials (so it would fit in drums), more studies were conducted on how the material, that now resembled fingernail-sized potato chips, could be melted and, hopefully, sold. It was found from numerous tests that although the raw nickel chips contained plutonium and significant amounts of neptunium, technetium, uranium and thorium; only technetium was found at high levels in the ingots. So, anyone with sense would ask, where did the other contaminants go?

Pre-smelting tests showed that the more toxic and radioactive materials were concentrated in slag that formed at the top of the melt with lesser quantities adhering to the liner of the melting unit. The slag and most furnace liners were buried in unlined pits in the classified landfill. Oh, I should have mentioned, much of the scrap (from Portsmouth and Oak Ridge) would have been contaminated with enriched uranium. Placing the somewhat porous slag where it would be exposed to ground water would have resulted in leaching of contamination at a minimum (I will leave it for those of you with a background in radiation to imagine other potential concerns).

So, is this one more thing to worry about when it comes to dealing with the classified landfill? Certainly, but my real concern is that former workers had/have not been given the whole story on the conditions where they worked and they deserve to be informed. The lack of awareness (concern?) was pretty obvious to me when I found slag spheres being used for decoration on a desk in the smelter office.

Don't start to believe that this is the only concern in this burial area. In the past, many of the materials in classified items were themselves classified. Now it has been confirmed that many weapons contained regulated hazardous metals. When a list of components and the metals used is reviewed, the hesitancy for DOE and Lockheed to come clean on the beryllium issue is laughable.

I will always remember that the classified burial area was the one location that a former burial manager told me to never dig in, but could not tell me exactly why because it exceeded my security clearance level. Other locations did not warrant such cautions and one can only surmise the serious nature of the problem by other occurrences. For example, when we drilled in a different landfill and went right through a drum of PCBs, solvents, and uranium metal shavings, not an eyebrow was raised.

JOHN TILLSON

Sharpe

E-Mail this article to a friend.

Powered by eMediaMakers from NEWSWCS

The Courier-Journal
Friday, March 31, 2000 LOCAL NEWS

Are you ready to retire?

Local News ... C-J Extra ... The Courier-Journal

U.S. may scrap plan for Paducah incinerator

Uranium plant project has cost $30 million

By JAMES R. CARROLL and JAMES MALONE
The Courier-Journal

PADUCAH, Ky. -- After the government has pumped $30 million into a waste incinerator at the Paducah uranium plant, a U.S. Department of Energy review has recommended scrapping the 4-year-old project as too costly.

The incinerator has yet to be built at the Paducah Gaseous Diffusion Plant, and it could take between $22 million and $26 million more to get the project up and running, according to the department. The company that would build and operate the incinerator, Vortec Corp., of Collegeville, Pa., contends the additional cost would be about $15 million.

"After consideration of the relevant facts and information provided by Vortec and PGDP personnel, the review team recommended that the demonstration not continue," said a draft of the Feb. 28 internal Energy Department report, which was obtained by The Courier-Journal.

The recommendation to halt the incinerator contrasts with Energy Secretary Bill Richardson's support for the project as recently as eight months ago.

In a July 20, 1999, letter to Sen. Jim Bunning, R-Ky., who has been a supporter of the incinerator, Richardson said the Energy Department considered the Vortec project a "promising innovative approach."

Lisa Cutler, a department spokeswoman in Washington, said no final decision has been made on Vortec funding. A pilot project, the incinerator technology could be used at other nuclear facilities if it proves successful in Paducah.

Doubts have surfaced in the Energy Department about the cost of the incinerator just as Congress holds another hearing today on the status of cleanup at the Paducah plant. The Senate Energy and Natural Resources Committee's subcommittee on energy research, development, production and regulation is scheduled to hear from Energy Department officials about plans for addressing the widespread environmental damage in and around the vast complex.

Bunning is a member of that panel and pushed for the hearing. He was unavailable for comment yesterday.

Vortec, meanwhile, has hired former U.S. Sen. Vance Hartke of Indiana to help make its case in Washington.

"The answer to nuclear waste has to be in technology, not in landfills," said Hartke, who said he has been a consultant to Vortec "for a couple of months."

Hartke, a Democrat, said Vortec made a Feb. 22 presentation to Energy Department officials arguing that the project should go forward.

Hartke now has a law firm in Falls Church, Va., outside Washington. He is not registered with Congress as a lobbyist, nor is Vortec registered as having a lobbyist, according to Capitol Hill records.

Hartke said he has been talking with Bunning about the Vortec project, and that Bunning "is very active on their behalf."

Hartke also said he has known the energy secretary "very well and for a long time."

But that connection apparently goes only so far. Although the former senator and Vortec officials have asked to see the internal Energy Department report critical of the incinerator project, they have not been given one.

THE PROPOSED incinerator uses a process called vitrification. It heats contaminated soil, rock and concrete rubble at temperatures up to 2,800 degrees. The incinerator would handle both low-level radioactive waste and hazardous chemical waste.

Vortec says the waste residue is an inert glass-like substance that can be stored safely for thousands of years.

At the project's 1996 groundbreaking at Paducah, Clyde Frank, then the Energy Department's assistant secretary for science and technology, said: "The Vortec process is a big winner for the taxpayers -- our customers."

But the internal department report said the project, under all but the rosiest forecasts, would be more costly than alternative disposal methods, including using an on-site landfill. The report said Vortec's projections about the volume of waste it would handle and costs are based on overly optimistic assumptions.

"DOE has invested a great deal of time and funding in the development of Vortec technology for the cleanup of DOE wastes," the draft report concludes. "Under expected conditions, a Vortec facility at Paducah would not be economical compared to the costs of much less risky alternatives. The probability is reasonably high that the technology would not be permitted or deployed on a timely basis."

At the moment, the incinerator consists of a concrete pad and some unassembled machinery.

IN HIS LETTER last July to Bunning, Richardson was noncommittal about the longer-term prospects of a full-scale incinerator at Paducah, saying that would require additional environmental analysis and study of "alternative technologies."

That last phrase took on added weight this week, when Richardson canceled a plan to build a nuclear-waste incinerator in southern Idaho. In announcing the halt to that project, the secretary stated that he wanted "a careful examination of new technology as an alternative to incineration."

"I'm not satisfied that that has been fully explored," he said.

Vortec President James Hnat, a former Energy Department employee, said his company is seeking the additional $15 million from the Energy Department to buy the final components needed to assemble the pilot plant. He estimated it would take two years after the company gets the money to complete the monthlong test burn to prove the technology.

Despite serious technical problems and cost overruns at a pilot vitrification plant at the Fernald, Ohio, uranium refinery in 1995, the Energy Department seemed eager to bring Vortec's Paducah project on line. The department was so eager that the agency issued an unusual exemption the following year to exclude the project from the National Environmental Policy Act, which calls for a detailed analysis of the incinerator's effect on the environment.

THAT MOVE brought a 1997 federal court challenge from environmentalists, who claimed the exclusion was illegal. The suit was resolved in late 1997 with an agreement under which Vortec was allowed to take delivery of the components it already had ordered and paid for but was barred from proceeding with construction until an environmental analysis for the pilot plant.

Leah Dever, who heads the Energy Department's Oak Ridge operations office, recently issued a finding that the Vortec incinerator would not have a significant impact on the environment. That removes a legal and procedural obstacle for the project, but a state regulatory hurdle looms.

The Kentucky Natural Resources and Environmental Protection Cabinet is waiting for more information from Vortec before it considers issuing a "treatment permit" for the incinerator, spokesman Mark York said.

Hnat said the amount of federal funding that Vortec needs is a "touchy question." He said he had not seen the Energy Department analysis that was critical of the Vortec project.

DELAYS CAUSED by the lawsuit have created a financial hardship for the small company, and the Energy Department has given the firm some interim funding -- about $200,000 to $300,000 a month -- to maintain its staff and pay for activities at Paducah, said Hnat.

Hnat said the department wants to save money by placing waste directly into landfills without treating it.

If given the chance, the Vortec incinerator could pay for itself, Hnat said. And if the technology was deployed across the complex, it could save the government up to $2 billion in environmental cleanup costs, he added.

The internal Energy Department report estimates that it would take up to $26 million more to complete the Vortec project -- far more than Hnat's estimate of $15 million.

The draft report also was skeptical of Vortec's claims that a full-scale incinerator could process up to 72 tons of waste a day.

The review team that prepared the report also noted that it could take up to two years to obtain regulatory approval to burn certain types of waste -- a delay that could further affect costs. The report also said that future legal challenges could not be ruled out.

MARK DONHAM, a Brookport, Ill., environmentalist who filed the 1997 suit against the department, said the new report should have been provided to the federally chartered community oversight board that makes recommendations on the environmental cleanup at Paducah. Donham is a member of the board.

"Obviously, the Energy Department was not interested in having an honest dialogue about Vortec," Donham said Wednesday. He said he has been waiting for three years for the department to release Vortec records under a Freedom of Information Act request he has filed.

BACK TO NEWS DIGEST TO NEWS ARCHIVE

All pages © 1998-99
Send questions and comments to

The Paducah Sun
Paducah, Kentucky
ONLINE EDITION Thursday, March 30, 2000 Paducah, Kentucky

KENTUCKY VOTES.com
Polls, Opinions, Comments

EXPLOITED

Secrecy took precedence over plant safety

Indifferent. Irresponsible. Callous. These words come to mind in reviewing retired workers' descriptions of conditions at the Paducah Gaseous Diffusion Plant during the period from the plant's opening in 1952 to the mid-1980s, when the Cold War was winding down.

If the workers' accounts are accurate — and there is substantial evidence to support their claims — the plant's operators and their overseer, the federal government, displayed varying degrees of indifference, irresponsibility and callousness in dealing with worker safety and environmental issues at the uranium enrichment facility.

Apparently safety was not a top priority at the plant during the Cold War era, although the risks of radioactive contamination certainly were not unknown. The idea of protecting the environment seems to have been a foreign concept. Plant employees and the federal officials who regulated their activities used the site as a dumping ground for radioactive waste and other hazardous materials.

In fact, the federal government used Paducah as an unregulated dump for other nuclear facilities. The community knew, of course, that uranium was being enriched here, but the government did not advise workers and the plant's neighbors that materials contaminated with highly radioactive plutonium and neptunium were shipped to Paducah.

It's pretty clear now that, in the Cold War-era nuclear program, secrecy ranked far above safety on the government's priority list.

Safety lapses were common in the plant environment described by former workers who spoke recently to the Sun's Joe Walker. It needs

AP AP/WIRE
NewsChannel 6 WPSD-TV
Paducah ONLINE PADUCAH ONLINE

emphasizing that several of these workers are plaintiffs in a $10 billion federal lawsuit that alleges two former plant contractors, Union Carbide and Lockheed Martin, jeopardized the health of plant employees by putting profits ahead of safety. The two companies have denied the allegations contained in the lawsuit.

However, investigations conducted by the federal Department of Energy tend to support at least some of the workers' claims.

For instance, the DOE has said workers at the plant's C-400 building were exposed to toxic trichloroethylene and radioactive contamination.

Documents show that problems with neptunium contamination were detected as early as 1957. A report written in 1960 by a medical researcher working for the federal government predicted that questions surrounding the exposure of Paducah workers to neptunium "will inevitably come more to the forefront."

Workers involved in the federal lawsuit say that the management of the plant was lax and that safety rules were unevenly enforced. Describing the handling of radioactive substances, Harold Hargan said, "Ignorance and apathy were rampant."

Some of the workers recall that liquid samples of uranium were diluted and then dumped in a holding pond. For years, chemical drainage from the C-400 building flowed directly into the soil — a fact that may explain why several private wells near the plant were contaminated with trichloroethylene and technetium.

These accounts make it easier to understand why the federal government will spend somewhere around $1 billion cleaning up the plant site. Growing evidence indicates the plant produced soil and groundwater pollution nearly as routinely as it produced enriched uranium.

Given that the federal government is virtually immune from lawsuits, the former plant contractors will have to bear the full brunt of litigation arising from the alleged safety lapses.

The contractors should be held accountable if workers were exposed without their knowledge to dangerous working conditions. However, the ultimate accountability for the uranium enrichment plant rested with the federal government.

Federal officials served as overseers and regulators. The federal government called the shots, and monitored the results.

If working conditions at the plant were, in fact, unsafe, we are forced to conclude that this was acceptable to the federal government. The disturbing bottom line here may be that the government of all the people did not serve the people of Paducah; it deliberately exploited them.

E-Mail this article to a friend.

The Paducah Sun

March 26, 2000

Cold War site 'unsafe'

Workers tell scary stories of conditions at DOE plant

By Joe Walker
Copyright 2000, The Paducah Sun

Thirty years ago, Harold Hargan sat in the home of a midlevel Atomic Energy Commission official and related a hair-raising story about unsafe working conditions at the Paducah Gaseous Diffusion Plant, where he had been employed as a chemical operator since 1953.

Hargan told of workers and supervisors' diluting samples of chemicals and radionuclides for dumping purposes; leaving deteriorating drums of highly radioactive substances leaching into a ditch; handling a hazardous degreaser carelessly throughout the plant; smuggling guns into the plant to be cleaned and their triggers sometimes plated with gold; and drinking on the job.

Hargan said he went to see the AEC official partly because he was tired of being branded a liar and a troublemaker by some co-workers and managers. Many of the events took place in a building called C-400 where uranium enrichment equipment was cleaned and, for a few years, precious metals were extracted from nuclear weapons parts.

"Ignorance and apathy were rampant," said Hargan, 68, who worked in the building much of his 39-year career ending in 1992. "Some people just didn't give a damn. When you mix alcohol with that, you've got a hell of a problem."

In 1986, Hargan went to an attorney and gave a sworn statement about the allegations he made to the AEC official 16 years earlier. Last year, Hargan and Cairo, Ill., lawyer Jim Flummer retrieved the statement as an avalanche of publicity mounted about past unsafe practices at the plant.

Flummer said he was shocked at the allegations and spent considerable time investigating them. "Based on my interviews with Mr. Hargan and interviews with many other former employees, I'm of the opinion that Mr. Hargan is extremely credible," Flummer said.

Hargan, a Pulaski County, Ill., commissioner, now is a named plaintiff in a $10 billion federal lawsuit alleging that past plant contractors poisoned workers and the public by putting profit ahead of safety.

The contractors, Union Carbide and Lockheed Martin corporations, deny the claims made in U.S. District Court in Paducah last year. Carbide ran the plant from its construction in 1952 until 1984. Lockheed Martin, formerly Martin Marietta, operated the facility from 1984 until last year.

Among its many allegations, the suit contends that starting in 1960, Carbide secretly extracted valuable uranium from workers' excrement in the plant sewage treatment plant. The uranium, which held traces of other highly radioactive materials such as plutonium and neptunium, came from on-job ingestion, and Carbide hid the need for biological and other follow-up studies, the suit alleges.

In a recent investigative report, the Department of Energy, which owns the plant, said the sewage

sludge was contaminated with uranium from bathroom and sink wastes from enrichment and support buildings. "Subsequently, this material was unknowingly spread at various locations at the site, creating contamination control problems," the report said.

DOE said improvements in 1977 greatly lessened the problem. It made no mention of recycling uranium from human waste.

But Hargan, a former sewage plant operator, said recovery work began after a sample suggested that about 200 pounds of uranium was in the sludge. He and a few other workers ran the dried sewage called "glit" through a uranium recovery unit in C-400 periodically for about eight years. The sludge came from the Paducah facility's treatment plant and in scores of 55-gallon drums from a sister enrichment plant in Oak Ridge, Tenn., he said.

"Uranium was valuable stuff back then," Hargan said. "They recovered it and put it back into nuclear bombs."

Two other retired C-400 workers, who asked not to be identified, said they worked in the recovery process. One described putting the "gunk" into a dissolver used in recovery, although he was unsure if it was sewage. Another said he was aware of the contents and that uranium was being recycled.

Several past workers said they never saw people drinking in C-400, but it was common knowledge that alcohol was abused, particularly on the night shift on which Hargan worked for many years. Some gave the names of workers and supervisors who were notorious for drinking on the job, which was forbidden by federal law.

In the 1950s and 1960s, especially, alcohol was abused by hourly workers and managers, Hargan said, adding that he saw his foreman drinking whiskey with an operator in C-400.

Don Copeland, a retired, 33-year employee who managed one of the huge enrichment buildings during the latter part of his career, said alcohol was abused at annual supervisors' parties, usually held at the Paducah Country Club.

"It went on so long until supervisors would get so drunk they wanted to fight. One finally pulled a knife on another one at one of the parties," Copeland said. "They finally had to stop it because it got too rowdy. It was all paid for by the federal government."

Hargan said he once noticed a blue haze coming from a 55-gallon drum that was supposed to contain uranium oxide. He said he removed the lid and found that the haze was coming from dry ice to keep beer cold. The alcohol was hidden in a dusty, dirty building where equipment was used to pulverize material that contained toxins and radiation, Hargan said.

Retiree Shirley Shumpert, who worked in C-400 with Hargan about eight years, said she heard of alcohol abuse but never saw it. Shumpert said her main concern was working in areas, like the pulverizer, without protective equipment and breathing dangerous fumes. That practice continued until about 1990 when the plant began hiring many more health physics personnel, she said.

"We did all that stuff without respirators or protective clothing. We just wore coveralls," Shumpert said. "We'd wash our hands and go right into the lunchroom and eat lunch."

The official Hargan visited around 1970 was Carl Humphrey of Burkittsville, Md., a middle manager for the AEC in Washington. The commission regulated the plant then, and Hargan trusted Humphrey because the two had graduated from high school together in Pulaski County.

Besides drinking on the job, some workers were smuggling dismantled guns into the plant and using a substance called "black magic" in C-400 to clean and coat the firearms, Hargan said. Another practice was using gold, extracted from nuclear weapons circuitry in C-400, to plate the triggers of guns, he said.

Even worse, Hargan alleged, were shady environmental practices:

--Some foremen taught operators how to use water and nitric acid to dilute liquid samples from uranium and other radionuclide recovery processes in C-400. The tactic boosted production and allowed the material, which appeared to meet plant disposal standards, to be dumped into a nearby holding pond that sometimes overflowed into a ditch leading to the Ohio River.

--Hargan had worked in small rooms at C-400 where neptunium and technetium - radioactive contaminants in uranium brought to the plant from nuclear fuel processing facilities - were recovered in the late 1950s and early 1960s. Residual contamination was placed in metal drums stored outside near the ditch. A decade later, Hargan was assigned to recover material from the crumbling drums, much of whose contents had leaked into the ditch.

--A foreman relieved Hargan on the technetium recovery project one night so Hargan could help unload trucks. When Hargan returned about two hours later, the recovery unit was unattended, a plastic valve had broken, and about 600 gallons of liquid containing technetium had spilled into a drain that flowed to the ditch.

--Huge, cylindrical converters used to enrich uranium were brought to C-400 to clean. Using cranes, workers lowered the converters into a heated vat containing the toxic degreaser trichloroethylene, or TCE. Routinely, 25 to 30 gallons of radioactively contaminated TCE would leak out of a converter and into the drain. "Everybody knew it was flowing out of those converters, and everybody knew they were rigging them wrong," Hargan said.

Humphrey recalls Hargan's stay at his home and the deep concern he had. "It was such a kind of perverted picture, it really concerned me," Humphrey said. "But as a lifelong friend of his, I knew he had a convincing story."

In those Cold War days, the commission was highly compartmentalized, Humphrey said, and he had "no need to know" about the Paducah plant. Instead, he sent investigators secretly to the plant, who "validated some of Harold's allegations. I was never knowledgeable about what happened, but when they visited out there, I know there were some management realignments."

Hargan and other former C-400 workers remember that a few supervisors and managers suddenly were no longer at the plant, having transferred or retired to avoid a scandal.

"It was all hush-hush. They more or less forced two or three people out," said one retiree, who now is a part of the would-be class-action suit with Hargan. "Nobody talked about it very much, but it was understood that's why they left."

The retiree said he knew of other workers who diluted samples and he was aware that the waste was dumped into the holding pond. He and other former C-400 workers said the use of gas masks was lax in neptunium and technetium recovery, as well as in other dangerous work.

On one occasion in C-400, the man dropped and broke a one-ounce bottle containing a neptunium sample that he was taking to the lab.

"Like everything else, I got a bucket of water and cleaned it up," he said, noting that he was not wearing protective equipment. "I remember thinking that was a lot of money lost. Now it scares me

to think of the risk I took. If I knew then what I know now, I would think it was about as dangerous as processing anthrax."

After the unannounced AEC visit, much of the trouble ceased, Hargan said. "Had Carl Humphrey not bitten the bullet when he did, the problems at the plant would've been much worse."

Still, the sloppy use of TCE continued for about 10 years as workers unfamiliar with cleaning equipment were transferred to C-400 from buildings that were shut down, Hargan said.

Charlie Brown, a retired electrical foreman, said the solvent was widely used in three-gallon drums, without protective equipment, to wash high-voltage circuit breakers in switch yards at the plant.

"I used to wash my coveralls in it to cut the grease," he said. "I hung them up and and wore them the next day."

In June 1986, workers discovered that a sump in the basement of C-400 was tied to the storm drain, instead of piping chemicals to the holding pond (now a landfill) as originally thought. According to DOE, the pond became a burial ground in 1957. They also found a break, which may have been there since the early 1950s, facing downward in the storm drain line. That meant that chemical drainage from the building went directly into the soil, perhaps for decades.

Two years later, traces of TCE and technetium were found in the wells of several homes north of the plant. That touched off a massive investigation and led to the DOE's replacing wells of nearly 100 homes with city water. Plant use of the degreaser was banned.

Cleanup efforts now include systems to pump and treat areas of greatest groundwater contamination beneath the plant. But pump-and-treat systems have limited effectiveness, and the plant is studying methods of treating the water in the ground as it flows.

Although the technetium contamination is believed to be coming mainly from buried radioactive materials, "it is possible" that the 600-gallon spill Hargan described during technetium recovery around 1960 could have been a key factor, said DOE spokesman Steve Wyatt. "We're talking about something a long time ago, and it's hard to tell what levels would have been there," he said.

What is clear is DOE's investigative findings related to C-400 work.

The building was a leading source of source of radiation and toxins in water, and workers there "had significant exposures" to TCE and radiation, DOE says, admitting that records were sketchy and that many overexposures probably went unreported. The only two documented cases of beta radiation overexposure occurred in the C-400 cylinder wash facility in the first quarter of 1968. Estimated exposures were two to four times the plant's quarterly limit.

The workers stood in a metal tray used to collect highly radioactive cylinder rinse water, which was the main source of neptunium and technetium recovery in earlier years. DOE said the plant's highest concentrations of neptunium - 2,000 times more radioactive than uranium - were in recovery work, and the main risk was breathing radioactive air particles.

Hargan was restricted from certain work areas for four months in the mid-1950s because of "repeated positive urine samples" for uranium, his records show. At various times, his body showed traces of neptunium and technetium that were below plant action levels. Although the records show Hargan was never exposed above the annual limit for workers, Bill McMurry of Louisville, Hargan's attorney, said he doesn't believe the records, partly because of what the DOE investigative report says.

McMurry, who filed the would-be class-action suit involving Hargan, said that based on a

2,000-hour work year, information from the report shows workers who disassembled neptunium-contaminated converters were exposed to more than three times the annual limit for radiation.

"I think Harold fits in that same group," McMurry said. "He worked around a lot of neptunium in C-400."

Hargan's medical records show that when he retired in 1992, he told the plant doctor he was concerned about "linkage" between work exposure and the bladder cancer he had been diagnosed with six months earlier. Since then, he has had a cancerous kidney removed and undergone chemotherapy, but he says he doesn't know if his illness was caused by his work.

1999©The Paducah Sun - All rights reserved

The Paducah Sun

March 26, 2000

Rush work, releasing uranium gases recollected

By Joe Walker
Sun Business Editor

Don Copeland had not heard about plutonium in the early 1950s when boxcars filled with 55-gallon drums rolled into the Paducah Gaseous Diffusion Plant, a massive, new facility enriching uranium as fast as possible for the federal government.

Copeland, who went to work in 1951 at age 25 for $1.50 an hour, was in charge of one of the 26-acre, fortresslike buildings where huge compressors pushed uranium hexafluoride (UF6) gas through miles of piping to gradually separate the useful and non-useful isotopes of uranium. He watched as crews unloaded the unmarked drums and stored them two-high outside the building's control room that held his office.

Forklift drivers frequently gouged the drums, spilling what looked like black cinders. Copeland and others were told to sweep up the messes with brooms, dustpans and waste cans, and put it in the regular garbage.

After several promotions into the supervisory ranks, Copeland broke through the plant's Cold War secrecy to pick up shreds of information about plutonium. He learned it was a byproduct of a nuclear reactor, which didn't exist at Paducah. Although he could find no paperwork, Copeland guessed the plutonium came from a plant in Hanford, Wash., and was in the drums near his office.

The highly radioactive material was a contaminant in spent reactor fuel in a building called C-410, where workers added fluorine to uranium to produce UF6. Working conditions in C-410 and similar areas were hot, loud and filled with dust containing radiation. The most radioactive areas were towers where fluorine was added and bins where byproduct ash containing plutonium was collected.

Respirators were specified for that type work, but compliance was inconsistent. In June 1955, a health physics memo noted that contamination levels in C-410 were higher than ever, and a green film was seen on the floor even after sweeping. Similar conditions and findings were noted as late as the 1960s and 1970s, according to the Department of Energy.

Although DOE now estimates that only about three-fourths of a pound of plutonium was present in the ash and other materials through the years, a little plutonium went a long way. Ingesting about a half-gram of the element would be fatal, DOE says, and lesser amounts could produce severe lung and digestive tract illness and increase the risk of cancer.

One retiree, who spent his early days in C-410 and C-420 - the "feed" plants - said he and many workers used gas masks when changing ash bins, which contained a fluffy, white, heavy powder. But other employees passing through the area and those eating in a nearby lunchroom had no breathing protection, said the retiree, who asked to remain anonymous.

"We had every kind of safety equipment imaginable, but they really didn't force us to wear it. It was really up to the individual," the man said. "To me that is one place where management was lax."

As a manager, Copeland didn't work in the feed plants, shops and other places where workers were exposed to airborne radiation and toxins, but he has great empathy for those who did. He's retired after nearly 34 years at the plant, lives in Mayfield, and is now a plaintiff in a would-be class-action lawsuit alleging that profit-driven contractors poisoned workers by withholding safety information from them. The contractors are defending the claims.

Copeland says workers at the Paducah plant, then run by Union Carbide Corp., were encouraged to outperform a sister plant in Oak Ridge, Tenn.

"The greatest thing at Paducah was comparing our time with theirs (Oak Ridge)," Copeland said. "We beat them on everything. If you're in a race trying to beat somebody in time, you have a pretty good idea about what's going to happen with your safety."

Peak production meant repairing massive motors, compressors and converters as fast as possible, he said, and crews kept detailed time logs. Maintenance in the shops and C-410 cleaning building put workers at serious risk, Copeland said.

"One of the dirtiest operations I ever saw was in the converter shop in C-720," he said. "They would cut the old barrier tubes (pipes used to separate isotopes) out with chain saws. There was a cloud of smoke in there so thick, you absolutely could not see."

The trouble continued for many years. A recent DOE investigative report said surveys in the shop in 1980 showed plant guides for airborne alpha radiation were exceeded for uranium by a factor of 1,680, neptunium (a contaminant similar to plutonium) by a factor of 2,121, and plutonium by a factor of 2,483.

Although alpha radiation cannot penetrate the skin, it is harmful if breathed or ingested. Even assuming that respirators were worn and at least 90 percent effective, contamination "levels even one-tenth as great (as those shown in 1980) would be deemed significant," DOE said of the conditions in C-720, generally known as the machine shop.

While workers on one end of the building were cutting tubes, those on the other end were installing new ones. Copeland recalls that the two sections were separated only by a sheet of black plastic, "as if that was really safe."

Several former workers told DOE that in the '50s and '60s people were not required to have protection or mandatory health testing even though they worked near high-risk compressor maintenance areas in the machine shop.

The DOE investigation noted that the few health physics personnel the plant had in earlier years were concerned about worker safety. But the Atomic Energy Commission, a DOE predecessor that regulated the plant until 1975, said in part that supervisors held radiation safety authority and were answerable to management, while health physics workers' role was "cautionary and advisory."

A 1987 DOE safety appraisal said line managers, then working for Martin Marietta, were not trained to handle radiation protection measures. "They recognize they are responsible but appear to regard radiation protection as not being a significant safety concern," the report said.

Conditions in the huge production buildings were generally cleaner and safer than many other work areas, but the big buildings had their problems. Copeland vividly remembers one of the worst explosions ever because it happened Dec. 13, 1962, his 37th birthday.

During maintenance work, the wrong mix of chemicals and temperature apparently caused a

massive converter, weighing about 35 tons, to explode and catch on fire. The impact blew out an eight-inch water main and set off virtually every sprinkler in the 26-acre building, emptying the fire water tank in minutes.

Harold Hargan, a retired worker who saw the aftermath, said the damage reduced the converter to a molten mess and looked worse than that of 10 tons of bombs exploding while he was in the military.

Hargan said he and other employees were told to take the debris to the plant's cleaning and decontamination building, known as C-400, melt it and flush it down a drain that flowed into a ditch leading to the Ohio River. The wreckage undoubtedly had contamination from uranium, plutonium and similar radionuclides, he said.

"It had classified material in it," Hargan said, "and that's how they decided to get rid of it."

A year later, the AEC approved Carbide's request to release drums of solution containing radioactive neptunium, thorium and uranium to the Ohio River via the same ditch. The solution came from the C-400 building where Hargan and others ran equipment to extract valuable neptunium and uranium.

According to DOE, the request said the discharge would be controlled to keep the concentration in the river below permissible limits. "This decision may have been a misapplication of AEC regulations ...," DOE said in an investigative report earlier this year. "This type of approach has contributed to elevated isotopic concentrations (of radioactive materials) found in ditches and outfalls (discharge points) both on and near the site today."

Another regrettable practice to boost production was the unmonitored "jetting" of radioactive, toxic gases through roof vents by using dry air or nitrogen, Copeland said. At night, the releases were called "midnight negatives," and men were sent to roofs with lanterns to monitor the white smoke to show the process was working.

Copeland, once foreman of a building called C-310 where enriched uranium was withdrawn, said venting occurred there, as well as in the production buildings.

"The highest assay (concentration of enriched uranium) was there," he said. "The jets exhausted to the atmosphere, and it was many years before we bothered to sample what we were exhausting."

Although the discharge had traces of plutonium and neptunium contamination, workers generally did not hear those names until the mid-1960s, about 15 years after the plant opened, Copeland said.

DOE says some current and former workers knew about or participated in midnight negatives. Procedures reviewed by investigators did not mention jetting, and interviewees could not remember it being done after the mid-1980s.

Investigators could not determine the number and frequency of the releases, but depending on certain conditions, as much as "several thousand pounds of UF6" were available for release from one of a production building's many "cells" where uranium was enriched, the investigative report said.

No stack emissions were monitored at the plant until the mid-1970s, the report says, but an estimated 66 tons of uranium were released into the atmosphere from 1952 to 1990 - 75 percent before 1965.

The discharges and unsafe working conditions were the direct result of putting production first, said Copeland, who admits he was "pretty bitter" about Carbide when he left in 1984. That year, Carbide stopped being the contractor, and Copeland wanted to transfer to another Carbide facility rather than keep working at the plant for new contractor Martin Marietta. Copeland and several other former employees later sued to contest transfer denials and lost.

However, Copeland refuses to blame Carbide for all the plant trouble. The AEC, and later DOE, "knew about it but didn't want to let anybody know they knew," he said.

"I'm 74, and I don't think my health was damaged out there," Copeland said. "Of course, I wasn't exposed like other workers. But I do think other workers were damaged, and what I don't like is that the company avoided telling anybody about the hazards."

1999©The Paducah Sun - All rights reserved