

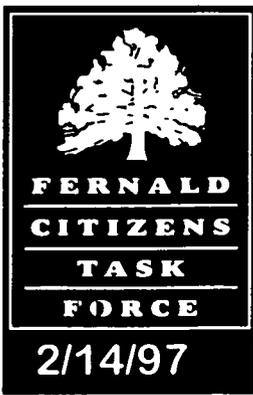
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**FERNALD CITIZENS TASK FORCE WEEKLY MAILING OF UPCOMING  
EVENTS AND MEETINGS ALONG WITH MINUTES FROM 1/29/97 NRT  
MEETING, NRT IMPACT ASSESSMENT CHART, MEMO FROM APPLGATE  
IRT, AND NEWSCLIPPINGS**

**02/14/97**

**TASK FORCE      TASK FORCE  
11  
ANNOUNCEME**



# FRIDAY MAILING

## INCLUDED IN THIS MAILING ARE:

- Minutes from 1/29/97 Natural Resources Committee Meeting
- Natural Resource Impact Assessment Chart
- Memo from John Applegate on upcoming Task Force Meeting
- Memo from John Applegate to Silos Independent Review Team
- Newsclippings

## ANNOUNCEMENTS:

*Please note the following upcoming meetings:*

- WASTE MANAGEMENT COMMITTEE:** The Waste Management Committee will meet Wednesday, March 12, 1997, at 7:00 p.m. in the Uno Building.

Please Note!

- TASK FORCE MEETING:** There will be a full Task Force Meeting on Saturday, **March 15, 1997**, at 8:30 a.m. in the Alpha Building.

Note: **FRESH Meeting!**

- FRESH MEETING:** FRESH will hold a meeting on Thursday, March 20, 1997, at Venice Presbyterian Church on Layhigh Road in Ross. All are welcome to attend!

## QUESTIONS:

- Please call John at [REDACTED] or Doug at [REDACTED] with questions or concerns, or fax or e-mail us at:

John      FAX: 281-3331      E-MAIL: john.applegate@law.uc.edu

Doug      FAX: 648-3629      E-MAIL: [REDACTED]

# NATURAL RESOURCES COMMITTEE

MEETING JANUARY 29, 1997



## IN ATTENDANCE

<b>James Bierer</b>	Task Force	<b>Tisha Patton</b>	Fluor Daniel Fernald
<b>Marvin Clawson</b>	Task Force	<b>Tom Schneider</b>	Ohio EPA
<b>John Honer</b>	Fluor Daniel Fernald	<b>Doug Sarno</b>	Task Force
<b>Tim Hull</b>	Ohio EPA	<b>Eric Woods</b>	Fluor Daniel Fernald

## DISCUSSION ITEMS

- Reviewed Natural Resource Impact Assessment - Looks at past impacts from site activities and future impacts expected from remediation activities. Document attempts to identify the extent of injury of natural resources at the site, getting comments from Trustees, will form the baseline for use by Trustees in determining restoration requirements. The Natural Resource Impact Assessment Chart provides an overview of the findings of the report.
- Reviewed Draft Natural Resource Restoration Plan, will be part of site-wide excavation plan due in draft in early March. Included some ideas for early action.
- Discussed "white paper" that has been put together to evaluate purchase of property east of site. Committee asked to get a copy.
- Habitat Equivalency Analysis was presented as a system to calculate the size of the natural resource restoration required to make up for damage from the site.
- Native American Remains - basic agreement for burial on DOE property, moving forward to ID location, west side of Paddy's Run - needs to be certified clean. NEPA process needs to be completed first, then logistics will be arranged. Tribes pushing for resolution as soon as possible.

## ACTION ITEMS

- There is a lot going on and more will happen with spring. Committee needs to take some quick action.
- Recommendation letter from committee:  
DOE needs to provide fact sheets on "What's happening at the site?"  
Task Force strongly supports early action ideas in restoration plan
- Next Meeting: Late March meeting to review excavation plan

## NATURAL RESOURCE IMPACT ASSESSMENT FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

NAME OF SITE	PAST IMPACTS	FUTURE IMPACTS	OTHER INFORMATION
Great Miami River/ Great Miami Aquifer	<ul style="list-style-type: none"> <li>• 172 acres of quantified ground water impact (20 µg/l) to the Great Miami Aquifer</li> <li>• Slight increases (less than 2x background) in Great Miami River surface water uranium concentrations downstream of the FEMP</li> <li>• Elevated levels of aluminum, beryllium, zinc, VOAs and semi-VOAs detected in sediments, but difficult to attribute specifically to the FEMP</li> <li>• 12 COCs found in sediment and/or surface water in the Great Miami River - again, these are difficult to attribute to the FEMP</li> </ul>	<ul style="list-style-type: none"> <li>• 5.0x10<sup>10</sup> gallons of groundwater anticipated to be pumped from the Great Miami Aquifer due to remedial activities</li> <li>• 3 acres of impact anticipated for the Great Miami River due to remedial activities, including 0.25 acres of riparian habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Residual Impact - Above background (5 µg/l) uranium groundwater plume will remain after remedial action is complete</li> <li>• Removal Actions and the Public Water Supply Project have mitigated impacts and/or service losses to the Great Miami Aquifer</li> <li>• Removal Actions have mitigated impacts and/or service losses to the Great Miami Aquifer</li> <li>• Fish data from 1984 to present reveal that the FEMP has not impacted fish communities upstream or downstream of the FEMP</li> </ul>
Paddys Run Corridor	<ul style="list-style-type: none"> <li>• Nine acres of quantified soil impact to the Riparian Corridor</li> <li>• 10 ecological COCs found in soil, and/or surface water</li> </ul>	<ul style="list-style-type: none"> <li>• 34 acres of impact anticipated due to remedial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian flora is more diverse in the upstream section of Paddys Run, possibly because of stream alterations downstream</li> <li>• Paddys Run fish community is diverse and stable, with variabilities occurring because of seasonal fluctuations in flow</li> <li>• Paddys Run macroinvertebrates show higher diversity upstream, which is attributed to the intermittent nature of the stream</li> <li>• Riparian corridor has high avian density</li> <li>• Removal Actions have mitigated and/or attributed to impacts and/or service losses in the Paddys Run corridor</li> </ul>
Southern Pines and Waste Units	<ul style="list-style-type: none"> <li>• 20 acres of quantified soil impact to the Southern Pines and other Waste Units</li> <li>• Three ecological COCs found in soil or surface water</li> </ul>	<ul style="list-style-type: none"> <li>• 17 acres of impact anticipated due to remedial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Flora and fauna diversities were expected with respect to habitat quality (old field and introduced monoculture)</li> <li>• Removal Actions have mitigated and/or attributed to impacts and/or service losses</li> </ul>
Northern Woodlot and North Pine Plantation	<ul style="list-style-type: none"> <li>• Four acres of quantified soil impact to the Northern Woodlot and North Pine Plantation</li> <li>• 11 COCs found in soil and surface water, most of which concentrated in the vicinity of the Fire Training Facility</li> </ul>	<ul style="list-style-type: none"> <li>• 40 acres of impact anticipated due to remedial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Residual Impacts - Five acres of residual impact anticipated due to the continued presence of ecological COCs</li> <li>• Diverse flora and fauna exist in the Northern Woodlots - Diversity of the North Pine Plantation is as expected (introduced monoculture)</li> <li>• Impacts to robins attributed to land management practices</li> <li>• Removal Actions have mitigated impacts and/or service losses</li> </ul>
Introduced Grasslands	<ul style="list-style-type: none"> <li>• 93 acres of quantified soil impact to the Grasslands</li> <li>• 13 ecological COCs found in soil and surface water, most of which concentrated around the Sewage Treatment Plant</li> </ul>	<ul style="list-style-type: none"> <li>• 204 acres of impact anticipated due to remedial site activities</li> </ul>	<ul style="list-style-type: none"> <li>• Grasslands exhibited typical diversity</li> <li>• Removal Actions have mitigated and/or attributed to impacts and/or service losses</li> </ul>
Waste Storage/Production Area	<ul style="list-style-type: none"> <li>• 173 acres of quantified soil impact to the Waste Storage and Production Area</li> </ul>	<ul style="list-style-type: none"> <li>• 9 acres of wetlands filled due to remedial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Treefrog null allele attributed to regional conditions, not to FEMP</li> </ul>

\* DRAFT DOCUMENT FOR USE IN FERNALD SITE TRUSTEE NEGOTIATIONS  
NOT ADMISSIBLE AS EVIDENCE

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# MEMORANDUM

*CHAIR*

John S. Applegate

*MEMBERS*

- James C. Bierer
- Marvin W. Clawson
- Lisa Crawford
- Pamela Dunn
- Constance Fox, M.D.
- Guy C. Guckenberger
- Darryl D. Huff
- Gloria J. McKinley
- Jerry Monahan
- Thomas B. Rentschler
- Robert G. Tabor
- Warren E. Strunk
- Dr. Thomas E. Wagner
- Dr. Gene E. Willeke

*Ex Officio*

- L. French Bell
- J. Phillip Hamric
- Gene Jablonowski
- Graham Mitchell

**TO:** Task Force Members

**FROM:** John S. Applegate

**SUBJECT:** 3/15/97 Meeting of the Fernald Citizens Task Force

**DATE:** February 14, 1997

The Fernald Citizens Task Force will meet on Saturday, March 15, 1997, from 8:30 a.m. to 12:30 p.m. at the Alpha Building, 10967 Hamilton Cleves Highway, Harrison, OH.

The agenda will be as follows:

- 8:00 a.m. Breakfast (optional)
- 8:30 a.m. Call to Order
- 8:30-8:45 Chair's Remarks and New Business
- 8:45-9:15 Report of Transportation and Natural Resources Committees
- 9:15-10:15 Update on Silos, Results of the Independent Review Team
- 10:15-10:30 Break
- 10:30-11:30 Budget and Schedule Issues Planning
- 11:30-12:15 Discussion of GAO Report
- 12:15-12:30 Opportunity for Public Input
- 12:30 p.m. Adjourn
- Lunch (optional)

We look forward to seeing you at the meeting.



## MEMORANDUM

TO: Members of the Silos Independent Review Team  
 FROM: John Applegate, chair  
 DATE: February 10, 1997  
 RE: Key Vitrification Questions

As you approach the final evaluation and reporting point of your activities, I would like to take this opportunity to share with you some of the significant concerns of the Fernald Citizens Task Force with regard to the silos remediation decisions. The full Task Force met on January 11 and the Waste Management Committee met on February 5 to discuss the IRT results to date and other issues surrounding silos remediation. As you know, the conclusions of the IRT will be used to help decide how to remediate the silos, and its conclusions will undoubtedly carry great weight. It is therefore of great importance that the IRT have sufficient time and information to reach its conclusions, and that it address the questions that will affect the decision.

Prior to seating of the IRT, the main concern of the Task Force and other local stakeholders was the pending decision regarding the treatment of silo 3 materials. In October, the Task Force's Waste Management Committee sent a request to DOE identifying some important information that would be required to conduct a fundamental assessment of the change of remedy for silo 3. This request outlined six major concerns:

1. the effectiveness of vitrification;
2. the legal and administrative ramifications of the change;
3. the impact of the change on total waste volumes;
4. the impact of the change on transportation and disposal risks;
5. the acceptability of the change to the stakeholders at the waste disposal facility;
6. the need for review by an independent panel of experts.

Since then, we have become increasingly concerned with the treatment option for silos 1 and 2 and want to be sure that the ultimate decision is based on as complete and accurate a set of information as possible. I have identified the additional information that we believe is necessary to reach this decision below.

### Issue 1: Vitrification of Silos 1 and 2

What is the best technical approach to vitrification?

How much will it cost?

How long will it take?

How confident are we in our estimates and the ultimate success of vitrification?

What impact will the resource requirements for vitrification have on other remediation projects on site?

Issue 2: Alternatives to Vitrification of Silos 1 and 2

Are there *bona fide* alternatives to vitrification?

If so, what are they?

How do alternatives compare with vitrification in terms of cost, schedule, and overall protection of the public, workers, and the environment?

How confident are we in the information we have available for the alternatives?

How significant are the regulatory barriers associated with changing the selected remedy?

We recognize that not all of these issues are areas in which you will provide input, but we ask that you (a) answer as many as you can with as much certainty as possible, (b) clearly identify in your final report the issues that you have addressed and those you have not, and (c) identify issues on which more time or information is required.

I hope that these questions help you to understand some of the concerns and the perspective of the stakeholder community at Fernald. We are grateful for the work you are doing to help in this challenging decision.

February 14, 1997  
Journal News  
Front Page  
"Broader Research Requested"  
Nicholas G. Jonson

Amid conflicting scientific reports about the health risks faced by Fernald-area residents, a citizens committee asked federal researchers Thursday to expand the scope of their studies on the effects of radiation exposure.

Members of the Fernald Health Effects Subcommittee said they want researchers to consider a range of possible radiation-related health disorders — not just lung cancer — in assessing the possible impact of Fernald radiation on nearby residents.

A study released last year by

(Please see FERNALD,  
Page A2)

# Broader research requested

By Nicholas G. Jonson  
Journal News

HARRISON

## Fernald

(Continued from Page A1)

the federal Centers for Disease Control and Radiological Assessments Corp. identified lung cancer as the primary health risk for residents living near the former Fernald uranium-processing plant.

The study, known as the Fernald Dosimetry Reconstruction Project, asserted that nearby residents faced an elevated risk of developing lung cancer because of radon gas that seeped into the atmosphere from uranium-storage silos.

However, a peer-review committee of the National Academy of Sciences this week criticized some conclu-

sions of the dosimetry study. The review committee said the study should have considered such factors as tobacco use in assessing the risk of developing lung cancer.

Several Fernald subcommittee members expressed dissatisfaction Thursday with CDC's focus on lung cancer as the primary health risk to area residents.

"I'm very concerned about focusing only on lung cancer," subcommittee member Dr. Chandra Gravely said. "People have developed other medical problems that need to be addressed. And I think many are concerned about the effects of exposure to uranium

and uranium byproducts."

Subcommittee member Robert Haravan suggested that the CDC consider the nature of reported diseases among Fernald-area residents and work to determine their causes, instead of doing so in reverse.

Haravan said the CDC should revisit the issue of water quality and possible uranium contamination as a possible cause for health disorders.

Subcommittee members Pamela Howard and Louis Doll said the CDC should consider not only the risks of radiation exposure cited in the dosimetry study but also word-

of-mouth reports of health disorders to determine other possible means of exposure.

"We've talked a lot in the past two days about uncertainty and the need to make assumptions in assessing (health) risks," Doll said. "But there doesn't seem to be one best way to (assess health risks to residents)."

Other subcommittee members agreed and pointed to such widely reported health conditions as kidney failure and spontaneous abortion, which they believe were not adequately addressed in the initial study.

"There is a great deal of information being collected

on disease, but there seems to be no way to get scientifically defensible information on the rate of excessive diseases," said Joseph Farrell, the subcommittee chairman.

Subcommittee members also asked CDC researchers to provide more information on health risks to former Fernald plant workers. The dosimetry study did not assess the potential increased risk for those working inside Fernald.

The concerns of subcommittee members come at a time when CDC officials are considering whether to conduct a multimillion-dollar epidemiological study on area residents.

February 12, 1997

Journal News

Front Page

*"Authors defend Fernald study"*

Nicholas G. Jonson

# Authors defend Fernald study

## Some health risks exaggerated, but conclusion stands, scientists say

By Nicholas G. Jonson

Journal-News

FERNALD

Scientists who studied Fernald-area health risks said Tuesday that they overestimated risks in a report.

But they said criticism by a peer-review committee will probably not change their basic conclusion that nearby residents face a higher risk of developing lung cancer.

A report released Monday by the National Research Council, an arm of the National Academy of Sciences, said the Fernald Dosimetry Reconstruction Project omitted several key factors, such as cigarette smoking, in determining the health risks to Fernald-area residents.

The 14-member review panel said the initial study leaned "toward overestimating dose and risk."

The dosimetry project concluded that residents living closest to the former Fernald uranium-processing plant theoretically faced an elevated risk of cancer from the inhalation of radon gas emitted from the K-65 storage silos. Researchers at Radiological Assessments Corp. announced the findings in August in conjunction with the federal Centers for Disease Control.

RAC's John Till said Tuesday that some peer-recommended changes, such as the inclusion of tobacco consumption as a health factor, should be considered further. But these factors could be easily accounted for without changing the basic conclusion, he said.

"We're now going to examine their recommended techniques ... and issue a response sometime in the next two months," Till said.

Owen DeVine, head of the risk-assessment group in the CDC's radiation studies branch, said scientists commonly share data

**'It's really unfair to do this to this community without preparation — to be told in August that you're at higher risk to develop cancer, but then suddenly be told you're at lesser risk.'**

Lisa Crawford  
Fernald Residents for  
Environmental Safety and Health

and arrive at different conclusions.

"What was unusual in this case is that we released the report to the public and media at the same time we released it for peer review," he said. "We did that because we wanted the citizens' committees to be involved in every step of the process."

The CDC will review both reports as it considers whether to spend several million dollars on an epidemiological study to determine if Fernald's neighbors have suffered a higher-than-average cancer rate.

Lisa Crawford, president of the Fernald Residents for Environmental Safety and Health, said she was "a little stunned" at the sudden release of the NRC peer-review report.

"We knew the Academy of Sciences was doing a peer review," Crawford said. "But none of us had heard nor seen anything about the NRC. It's really unfair to do this to this community without preparation — to be told in August that you're at higher risk to develop cancer, but then suddenly be told you're at lesser risk."

"I just don't think that's how you should do peer review."

*(The Associated Press contributed to this story.)*

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February 06, 1997

Cincinnati Enquirer

Hometown Page

"Turpin science team advances to nationals"

Reporter: Christine Wolff

THE CINCINNATI ENQUIRER

HOMETOWN/

# Turpin science team advances to nationals

BY CHRISTINE WOLFF

The Cincinnati Enquirer

**ANDERSON TOWNSHIP —** Four Turpin High School students will head to the National Science Bowl in Washington, D.C., in May, hoping to continue their come-from-behind winning streak.

The Turpin team earned the national slot recently by winning the annual Greater Cincinnati Regional Science Bowl. Turpin beat 31 teams from Ohio, Kentucky and Indiana schools, taking all but one match and emerging from the loser's bracket to win the contest.

Turpin's only loss — by one question — was to Summit Country Day School, Hyde Park. Turpin

then won three games — over Dixie Heights High School, Edgewood; Moeller High School, Sycamore Township; and Cincinnati Country Day School, Indian Hill — before meeting Summit again.

Turpin defeated Summit, twice, for the title.

"We beat them with vengeance," joked Walt Comstock, a Turpin biology teacher and team coach.

In the end, Summit took second place, Moeller finished third, and Cincinnati Country Day was fourth.

The quiz-show style Science Bowl is both fun and taxing, said Andy Cassidy, a Turpin senior and team captain.

"It's kind of nerve-racking, but

when it's finished, whether you win or not, it's been fun," he said. "Some of the questions were really obtuse, and you just had to take a shot in the dark."

The contest tests students' knowledge of earth science, biology, chemistry, physics, astronomy, math and computers.

It's the second Turpin team to go to the Science Bowl nationals. Turpin won the regional contest in 1994 but lost in the first round at the national level, Mr. Comstock said.

The other three members of this year's team are Jason Schla-bach, sophomore; Nathan Cullen, senior; and Nick Anderson, junior.

"The last time we went, the team was all specialists. This time, there is a lot more overlap (on subject expertise). It gives us more back-up and more challenge in practice," Mr. Comstock said.

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February 11, 1997

Cincinnati Enquirer

Front Page

"Level of cancer risk near Fernald disputed"

Reporter: Tim Bonfield

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# Level of cancer risk near Fernald disputed

**BY TIM BONFIELD**  
The Cincinnati Enquirer

The radiation dose absorbed by people living near Fernald may have been four to six times lower than previously estimated, according to a review to be released today.

That means the lung cancer risk linked to the now-closed uranium processing plant about

15 miles northwest of Cincinnati also may have been overstated.

That Fernald caused some level of lung cancer risk first was revealed in August in a groundbreaking dose reconstruction study conducted by Radiological Assessments Corp. (RAC) on behalf of the federal Centers for Disease Control and Prevention (CDC).

## Fernald RADIATION & RISKS

The review was conducted by a 14-member National Research Council (NRC) committee that included several of the nation's top experts on the

health effects of radiation.

The committee disputed how RAC estimated the amount of radon gas emitted by waste stored in Fernald's deteriorating K-65 sites. The issue is important because radon gas — not uranium — was cited as the largest health risk.

"In the opinion of the committee, the RAC approach has

resulted in an overestimation of doses to people from exposure to radon," the NRC committee wrote. "The committee is concerned that RAC's overestimation of doses received by the population from radon, although prudent, might produce some undeserved apprehension on the

(Please see FERNALD, Page A3)

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# Fernald: Review disputes level of cancer risks

CONTINUED FROM PAGE A1

part of some citizens and should be carefully presented."

Overall, the committee estimated that the health risks were overstated. It also said RAC should do more to factor smoking into estimates of lung cancer risk.

RAC President John Till did not return phone calls about the new report. But CDC officials said the differing opinions may complicate decisions about what to do next.

The CDC has been studying whether to spend several million dollars on an epidemiological study to determine whether Fernald neighbors actually suffered a higher-than-average cancer rate.

"I can't tell you what implica-

tions (the review) will have," said CDC spokesman Steve Adams. "Whenever you have peer review, there's an expectation that there's going to be differences of opinion. At this point we aren't looking at either report as right or wrong."

The original study looked at a 6.2-mile radius surrounding Fernald. Researchers for that study used plant production records, emission measurements and weather trends to create a highly detailed computer model of radioactive pollution from Fernald.

The radiation dose and cancer risks were laid out in nine hypothetical scenarios based on how long people lived near the plant and how close. All the scenarios were based on years when the

plant was in operation. Federal officials say the closed plant now poses no significant human health risks.

In the worst-case scenario cited by the RAC study — a 50-year-old woman who lived for 38 years on a farm just downwind of Fernald — the lifetime odds of developing lung cancer would be 23 percent, compared with a average national risk of 20 percent.

The risks drop dramatically for people who lived farther away or for shorter periods. But a higher-than-average cancer risk was cited for all nine scenarios.

If the National Research Council criticisms of the original study are correct, how many of those scenarios face an increased cancer risk is

open to question.

But Mr. Adams said he does not expect the CDC to conclude that Fernald posed no health risks at all.

"While we may all disagree on the precise dose estimate, in any case, the CDC believes there was an increase in risk," Mr. Adams said.

The full text of the committee review comes out today. The report is expected to be discussed in detail by the Fernald Health Effects Subcommittee, which meets Wednesday and Thursday in Harrison.

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