

MEMORANDUM

TO: James Caldwell, Administrator, Region III
U.S. Nuclear Regulatory Commission

CC: James Dyer, Director, Office of Nuclear Reactor Regulation
Samuel Collins, Deputy Executive Director for Reactor Programs
Members, Davis-Besse 0350 Oversight Panel

FR: Shari Weir, Cleveland Program Director
Paul Ryder, Communication Director
Ohio Citizen Action

DT: December 15, 2003

RE: **An analysis of FirstEnergy's Davis-Besse 'safety culture' surveys:**
- Company figures show continuing retaliation against plant employees
- Data cooked to improve results: Raw data show no improvement

1. Summary

From May to November, 2003, FirstEnergy's primary goal was to prove to the public and the U.S. Nuclear Regulatory Commission that it now puts safety first at the Davis-Besse nuclear plant.

In that period, however, Davis-Besse employees report that FirstEnergy managers committed at least 33 acts of "retaliation for raising nuclear safety/quality concerns." That's an average of one every six days.

During the previous six-month period, October 2002 to March 2003, employees also reported at least 33 acts of retaliation; again, one every six days. In other words, FirstEnergy's own surveys show no improvement at all in the most important indicator of 'safety culture.'

These startling statistics come from FirstEnergy's most recent employee survey, which the company released on December 3, saying the results were "positive and encouraging."

FirstEnergy obscured these survey results by manipulating the data, changing both sample characteristics and question wording. In fact, as described below, the raw data behind the survey result most prominently featured by FirstEnergy executives ("I can raise nuclear safety concerns without fear of retaliation") may show a slight increase in intimidation in the plant.

2. Introduction

It is not easy to make a hole in a nuclear reactor lid. The warning signs at Davis-Besse were so clear for so long that only a certain combination of intimidation, exhaustion, management negligence, and deceit could allow it to continue.

FirstEnergy has tried to show the NRC that the intimidation of workers in the plant has ended. It does so with lengthy presentations of process: slides, committees, catch-phrases, color codes, training sessions, acronyms. It also needs to show the results of all this process, and to this end, it has only the results of periodic management-administered employee surveys.

This Thursday, December 18, FirstEnergy will ask the NRC to let them flip the switch to restart Davis-Besse on the basis of improvement in the survey results released on December 3.

In doing so, the company will have two problems:

First, as we understand it, the standard the NRC is looking for is not 'improvement.' The standard is much higher: 'safe enough to split atoms.'

Second, the survey results do not show improvement.

After showing how this is so, we look beyond the surveys for other evidence of FirstEnergy's fitness in the areas of intimidation, employee exhaustion, and management negligence. We will leave it to the federal grand jury to deal with the issue of deceit.

3. FirstEnergy's employee surveys

A. March, 2003

On April 15 and May 6, 2003, the company released results of a March survey of employees and contractors working at Davis-Besse.

The crucial question was posed to 666 employees and 377 contractors, as follows: "I have been subjected to 'HIRD' [harassment, intimidation, retaliation, discrimination] for raising nuclear safety, quality or compliance concerns while working at Davis-Besse within the last six months," (*Exhibit 75*, April 15, 2003; *Exhibit 40*, May 6,

2003).

5.1% of employees (33 people) and 10.9% of contractors (41 people) said they had, for a total of 74 workers.

These statistics likely understate the problem, since they only include workers who raised safety issues, then were subjected to 'HIRD' by management, and then were willing to speak out again to the same management. The difference in percentages between employee and contractors fits the pattern of the rest of the survey. This reflects in all likelihood that contractors were less under FirstEnergy's influence and thus more free to tell the truth.

In any other company, such practices would constitute a major scandal, and the Board of Directors would have promptly removed the Chief Executive Officer. At the time, however, FirstEnergy declared it an "improvement."

Importantly, the same March survey showed that 85% of employees and contractors said "I can raise nuclear safety or quality concerns without fear of retaliation." In other words, management could elicit an 85% "without fear" response at the same time it continued widespread retaliation against workers.

The significance of the March survey results is not only how it compares with the subsequent survey, below, but also how it was taken and what FirstEnergy did with the results:

- The employees and contractors were surveyed by the same management that for years maintained the climate of intimidation at the plant. How can anyone expect workers to give straight answers under these circumstances?
- Were responses to the survey intended to be anonymous? If so, what procedures did FirstEnergy follow to protect respondents' anonymity?
- Seeing so many instances of continuing intimidation, did FirstEnergy make any effort to get people to come forward and report it on the record? If so, what did it do? If not, why not?

- If FirstEnergy did make the effort and employees were willing to identify themselves in a complaint, what were the results? How many cases were substantiated? What were the consequences to the managers who were found to have engaged in intimidation or harassment?
- If FirstEnergy did make an effort to investigate this anonymous reported harassment, and employees were not willing to identify themselves, isn't that evidence in itself that employees still believe themselves to be under pressure?
- What has the NRC done since April 15 to find out, first, the particulars on the large number of reported instances of employee harassment, and second, what steps FirstEnergy has taken with respect to the particular cases reported?

B. November 2003

Reported retaliation cases

On December 3, FirstEnergy publicized the results of their November survey. Their Exhibit 25 shows that 4% of employees were willing to report that "I have been subjected to retaliation for raising nuclear safety/quality concerns within the last 6 months while working at Davis-Besse." The number of respondents was 833, so 4% means 33 people.

Given the wording of the survey, an affirmative response refers to at least one act of retaliation. There was no indication by FirstEnergy of a way for respondents to register that they had been subjected to more than one instance of retaliation. The "site population" is 850, so the 17 employees not responding may have had additional cases to report (*Exhibit 14*, December 3, 2003).

On average, then, there has been at least one act of reported retaliation every 5.5 days.

This result -- 33 reported acts in six months -- is the same as found in last spring's survey. It shows no progress at all in the single most telling index of 'safety culture.'

FirstEnergy made two changes to the survey, however, between March and November, which obscured this result, and raise the question whether the climate in the plant may be, in fact, worse.

1. First, FirstEnergy changed the question wording. In March, the question referred to "harassment, intimidation, retaliation, discrimination." In November, the company dropped three of the four, asking only about "retaliation." Had they asked the same question as in March, there could easily have been more affirmative responses.
2. Second, FirstEnergy gave survey results for both employees and contractors in March, but only for employees in November. As noted above, contractors March responses were consistently more negative than those of employees. Did FirstEnergy not survey contractors in November, or have they withheld the November survey results for contractors? Either way, the public and the NRC need to know what contractors' responses to the question were or would be. Without them, the only consistent way to look at the numbers is to compare the number of employee-reported instances in March to employee-reported instances in November. The answer is 33 in both periods.

The "without fear" question

On December 3, FirstEnergy executives emphasized -- to financial analysts in New York and later to the NRC in Oak Harbor -- one survey result: that employees who had a "willingness to raise concerns without fear of retaliation" had risen from 85% in March 2003, to 87% in Nov 2003.

There are several reasons why this result is not the occasion for celebration:

First, the response increased by only 2% after eight months, during which the company said that improving the "safety culture" was its primary objective. By any business standards, this would be regarded as a failure.

Second, we saw in the March survey that even though 85% of employees said they were willing "to raise concerns without fear of retaliation," management was continuing widespread retaliation against workers at the same time. There is no reason to believe that an increase of 2% in the "no fear" response would be associated with the disappearance of intimidation.

Third, again, FirstEnergy changed the sample characteristics, so that it is comparing apples with oranges. The 85% figure in March represented the combined responses of employees and contractors; the 87% figure in November represents the responses of employees only. FirstEnergy did not provide a breakdown of affirmative March responses between employees and contractors, so there is no way to compare the results responsibly. Since, as above, contractors responses tended to be significantly

more negative than those of employees, it is easily possible that the affirmative percentage for employees-only actually dropped from March to November.

This possibility is supported by the clues provided in FirstEnergy's Exhibit 40 from May 6, 2003 and Exhibit 21 from December 3. Comparing the "disagree" responses to this question for employees only, the number climbed from 4.2% in March to 7% in November. This shows a worsening situation, not "improvement."

Other questions

In Exhibit 22, we find the following statement, "Management cares more about resolving safety and quality issues than cost and schedule." In response, 17% disagree, and another 14% "don't know." That's a total of 31%, or 258 employees, who can't affirm that management puts safety first. That's hardly a vote of confidence, again, especially during a year in which the company's primary goal was to prove that it *did* put safety first.

FirstEnergy also chose 10% of the staff - 86 people - for interviews on the same topics. From the interview format, we know for sure that anonymity was impossible. Thus we could expect to find much more favorable responses to the same question than from an anonymous survey.

However, fully 9% were willing to say they knew of or had heard of an instance of retaliation, compared with 11% on the full-staff survey (*Exhibit 31*).

23% of interview respondents said they were "aware of instances since February 2003 in which another individual raised an issue and considered the response incomplete or unacceptable," (*Exhibit 31*). If this proportion applied to the employees as a whole, that would be 195 people.

All the same questions about the March 2003 survey apply to the November 2003 survey:

- Were responses to the survey intended to be anonymous? If so, what procedures did FirstEnergy follow to protect respondents' anonymity? What does FirstEnergy intend to do to get people to come forward and report it on the record? What does the NRC intend to do to find out the facts about these continued reports of harassment?

- Why is the NRC relying on FirstEnergy to provide evidence that it has stopped intimidating its own employees? Isn't it inherent in the problem that the honor system won't work?
- What does it say about FirstEnergy's sense of accountability that, at the very moment it demands restart approval, it is trying to slide such clumsy deceptions past the NRC?

4. Other evidence

Management-administered surveys are not the only ways to understand what is going on inside the plant. Below, we look at other evidence about intimidation, exhaustion, and negligence.

A. Intimidating employees

The most publicized example of intimidation occurred to Andrew Siemaszko, an engineer who "had been urging the utility to clean rust from the plant's reactor head almost from the day he was hired in 1999 as a lead nuclear systems engineer with a FirstEnergy subsidiary. When he and a crew of workers were finally allowed to work on the problem during the plant's 2000 refueling outage, the complaint claims, there was so much rust accumulated on the reactor head that workers used crowbars to pry it off," (Tom Henry, *Toledo Blade*, February 19, 2003). FirstEnergy fired Siemaszko for his continuing insistence on following safety procedures ("Andrew Siemaszko, complainant, v. First Energy Nuclear Operating Company, respondent," *U.S. Department of Labor, Occupational Safety and Health Administration*).

In another case, three employees were threatened in separate incidents "after they questioned whether a job was being done properly. One worker's auto tires were slashed in early January, said [attorney Howard] Whitcomb, after the employee stopped a project in the reactor containment building over a safety issue," (John Funk, *Cleveland Plain Dealer*, February 1, 2003).

The company hired safety expert, Dr. Sonja Haber, to examine their operations. She found a "widespread perception of 'them versus us' within the organization, particularly among some senior managers with regard to Station personnel," (Dr. Sonja Haber, *Performance, Safety, and Health Associates, Inc.*, April 14, 2003).

The overall situation was well-summarized by Paul Blanch and Ulrich Witte, who learned about 'safety culture' at Millstone Nuclear Power Station in Connecticut.

They "said they believe that FirstEnergy's charges against Andrew Siemaszko will discourage other employees from coming forward -- regardless of whether Mr. Siemaszko proves he is a whistleblower who was wrongfully terminated. 'It is just sending a horrible, horrible message to the employees that if they [FirstEnergy management] can get away with it, they will,' Mr. Blanch said. 'The message is out there that the utility is persecuting whistleblowers.' . . . 'I guarantee there will never be a credible witness who will step forward and speak honestly about what happened at that plant, because of this,' [Ulrich Witt] added," (Tom Henry, *Toledo Blade*, April 29, 2003).

B. Working employees to exhaustion

FirstEnergy has also undermined plant safety by overworking its employees. Some fatigue-caused mistakes show themselves immediately. Others become buried in miles of wiring or piping, and don't appear for months or years, on a normal day or during an accident.

Shortly after the hole was discovered, Ohio Citizen Action began to hear from employees -- and friends and relatives of employees -- that the company was working them too hard.

Oak Harbor resident Tom Lenz first raised the issue publicly on September 17, 2002, at an NRC public meeting:

"One other question, you're talking for the safety of the plant; what about the workers and the hours they're putting in? I'm friends with quite a few people that work out there, and I know some of them have been on 12 hour shifts or more and six and seven days a week since September 11 of last year. That cannot be a safe working environment to have these people working those kind of hours for that length of time."

The U.S. NRC did not investigate Mr. Lenz' report, despite the clear language of "NRC Regulatory Issue Summary 2002-07: Clarification of NRC Requirements applicable to worker fatigue and self-declarations of fitness-for-duty," (May 10, 2002). This reads in part:

"Section 26.10(a) requires a licensee to "provide reasonable assurance that nuclear power plant personnel are not under the influence of any substance, legal or illegal, or mentally or physically impaired from any cause, which in any way adversely affects their ability to safely and competently perform their duties."

This position is consistent with 26.10(a)(2), which states that "licensee policy should also address other factors that could affect fitness for duty such a mental stress, fatigue, and illness."

Subsequent to the September 2002 public meeting, Ohio Citizen Action learned that a worker had filed a condition report complaining that workers were required to work schedules that left them too tired to do their jobs safely. At least one additional worker was rumored to have filed such a condition report, but our source had not yet witnessed a hard copy of it.

Based on these reports, on December 13, 2002, Ohio Citizen Action filed a formal complaint with the U.S. Nuclear Regulatory Commission (Allegation by Ohio Citizen Action that Davis-Besse employees are required to work unrealistic work schedules, leaving them unfit-for-duty, Amy Ryder, Cleveland Program Director, *Ohio Citizen Action*, to James Heller, Senior Allegations Coordinator, *U.S. Nuclear Regulatory Commission*, December 13, 2002).

In the complaint, Citizen Action asked the NRC to take the following steps:

1. Obtain, review, and make public copies of all condition reports filed since September 11, 2001, at the Davis-Besse nuclear power station referencing worker fatigue and fitness-for-duty;
2. Launch a formal investigation, independent of the current 0350 panel, to determine Davis-Besse workers' fitness-for-duty, and their ability and freedom to report their fitness-for-duty without fear of reprisal;
3. Inquire into why Mr. Grobe did not take issue with FirstEnergy about exhaustive work schedules after Mr. Lenz raised the problem;
4. Establish a procedure in which Davis-Besse workers may notify the NRC that they are unfit-for-duty, without reprisal or fear of reprisal from their employer; and
5. Notify FirstEnergy that Davis-Besse will not be permitted to return to service until this matter has been resolved and a public meeting has been held in Ohio to notify the public of the resolution of this problem.

In the April 15, 2003, 'safety culture' report, Dr. Sonja Haber also noted the overwork problem:

"At the time of the evaluation, station personnel stated that they had been working extended hours (e.g., 12 hours per day, 6 days a week or 10 hours a day, 7 days a week) for periods of six months and more. . . The continuing long work hours have the potential to lead to degraded safety performance." (*Safety Culture Evaluation of the Davis-Besse Nuclear Power Station*, April 14, 2003, page 15).

Five months after Citizen Action filed its complaint, the NRC dismissed it without an investigation. Instead, the agency asked FirstEnergy whether their employees were fit for duty. FirstEnergy said they were. "We consider the issues closed," said John Grobe, Chairman of the NRC's Davis-Besse oversight panel, in his letter dismissing the complaint (May 16, 2003).

Thus officially cleared, FirstEnergy felt free to announce the exhausting schedules: ". . . Davis-Besse employees yesterday began an accelerated 12-hours-a-day, six-day workweek, and they sealed the big hatch that had been used to shuttle repair equipment in and out of the reactor building," (John Mangels, *Cleveland Plain Dealer*, Jun 26, 2003).

Even workers speaking in favor of a quick restart could not help acknowledging the obvious:

". . . we've been working our tails off for the last year and a half trying to get the plant back on-line, and we're tired, we want to get this behind us and move forward," (Ron Purk, Reactor Operator, Davis-Besse, public meeting between U.S. Nuclear Regulatory Commission 0350 Panel and FirstEnergy Nuclear Operating Company, October 7, 2003, transcript page 54).

The evidence for worker exhaustion continues through last week: On December 10, the NRC called a special meeting at its regional headquarters to examine corrective actions at Davis-Besse. During the meeting, Davis-Besse plant engineering director Jim Powers said that he plans for the staff to *decrease* its hours to a fifty-hour workweek, to give staff an opportunity to "rejuvenate." At a Port Clinton Kiwanis Club meeting, reported the same day --

"[Port Clinton EMS Medical Director] Dr. Barry Cover told [FirstEnergy Vice President Mark Bezilla, the corporation's top on-site Davis-Besse executive] that some Davis-Besse workers look 'dead beat' from working 60- and 70-hour weeks readying the power station for restart. 'It doesn't work in my business,' Cover said. 'I don't see how it can work in yours,'" (Rick Neale, *Port Clinton News Herald*, Dec 11, 2003).

- If FirstEnergy is now committed to "a robust Safety Culture and Safety Conscious Work Environment," as it announced on December 3, 2003, why is it routinely violating NRC safety regulations regarding overwork?
- Why won't the NRC even investigate this violation?

C. Management negligence

At the December 10 meeting in Lisle, Illinois, FirstEnergy told the NRC it had a list of thousands of repairs and improvements left undone.

". . .the engineering workload over the next two years is vast -- more than 8,500 items generated during the plant shutdown remain on the table, said [Davis-Besse plant engineering director Jim] Powers, from updating drawings to reworking old calculations. The company assumes that most of the work, for which it has budgeted \$12 million over two years, would be done after the reactor resumes making power," (John Funk, *Cleveland Plain Dealer*, December 11, 2003).

At the same meeting, FirstEnergy told the NRC they wanted to resume nuclear fission at Davis-Besse by New Years Eve.

- Is FirstEnergy implying that --
 1. None of the 8,500 undone items are safety-related?
 2. All the safety-related items will be done within a few days? or
 3. They won't be done but they don't care?
- Does the NRC believe either of the first two possibilities is plausible?

FirstEnergy gave confusing answers at the December 10 NRC meeting about how and when this list was prepared, and whether it was available to the NRC.

- Does the NRC have a copy of the list? If so, has it examined each of the 8,500 items?
- Is the NRC prepared to declare, based on that examination, that none of the undone items are safety-related?

Ohio Citizen Action has documented the dozens of different restart dates FirstEnergy has announced since March, 2002. On the average, the restart date was set for 4-8 weeks from the date of the announcement.

- On each of the dozens of occasions, were FirstEnergy executives unaware that they had thousands of unfinished items, or were they deliberately ignoring them?

We know that many repairs have been done since March 2002. Since so many items remain, however, and, as reported above, they were "generated during the plant shutdown," it raises several questions:

- How many items have been generated each month during the shutdown? How many items have been accomplished each month?
- Are new items still being generated, and at what rate? How many of these are safety-related? If the number of new safety-related items is significant, is it wise to start a nuclear reactor under these circumstances?
- If, however, the generation of new items has stopped, when did that happen? Did it stop because the hardware is now safe, or because management didn't want new items added to the list?