

## National Litigation Consultants

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March 06, 1998

Hon. Shirley Jackson, Chairman  
U.S. Nuclear Regulatory Commission  
White Flint Building  
Washington, D.C. 20555

RE: PETITION UNDER 10 C.F.R. 2.206  
REQUEST FOR AGENCY ACTION.

Dear Chairman Jackson:

In accordance with U.S. Nuclear Regulatory Commission ("NRC") regulations<sup>1</sup> found at Title 10 of the Code of Federal Regulations, the undersigned and National Litigation Consultants ("NLC"), (hereinafter "Petitioners") submit this request for action by the NRC with respect to its licensee, Florida Power & Light Company ("FPL") operators of the St. Lucie nuclear station Units 1 and 2 and the Turkey Point nuclear station Units 3 and 4 as fully described below:

### Specific Request

1. that the NRC, pursuant to Section 103, 161(i), 161(o) and 182 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 C.F.R. 2.204 and 10 C.F.R. Part 50, ORDER its licensee FPL to within 30-days of the date of the NRC's ORDER; that the licensee shall submit to the NRC for review and approval a plan for an independent written appraisal of the St. Lucie Nuclear site and corporate organizations and activities that would develop recommendations, where necessary, for improvements in management controls and oversight to provide assurance that

<sup>1</sup>This provision is contained in Subpart B, Section 2.206 of the NRC's regulations.

personnel will comply with required procedures. Upon approval of the plan, it shall be implemented and scheduled milestone completion dates shall not be extended without good cause and the concurrence of the NRC. The appraisal shall be completed as called for in the above plan, but in any case, within six months of the date of the NRC's ORDER. Petitioners request that the NRC's ORDER compel that the licensee's plan shall include but not be limited to the elements itemized below:

**ITEM #1:**

An independent organization retained by the licensee shall evaluate current organizational responsibilities, management controls, improvement and upgrade programs, staffing levels and competence, communications, the safety review process, and operating practices both at St. Lucie and corporate office. The licensee's programs for personnel motivation such as incentive and disciplinary programs shall be examined in the appraisal.

**ITEM #2:**

The appraisal shall include a review of the licensee's site and corporate management supervisory personnel as well as a representative number of site working level personnel to determine their understanding of both regulatory and administrative requirements in the areas of procedural implementation and compliance. Additionally, a determination of the level of commitment of the personnel to such goals should be made.

**ITEM #3:**

The appraisal report shall include the views of the independent organization on the causes of the past failures to meet regulatory requirements and an evaluation of the adequacy of the current improvement and upgrade programs and management changes to achieve lasting safety improvements in compliance with Commission requirements. Past efforts to improve procedures shall be reviewed and recommendations shall be made for procedural, organizational, personnel, or other changes to improve the safety of plant operations and compliance with Commission requirements.

**ITEM #4:**

A description of the appraisal program, the qualification of the appraisal team, a discussion of how the appraisal is to be documented, and a schedule with appropriate milestones.

**ITEM #5:**

Periodic meetings shall be provided between the outside organization and the licensee to alert the licensee of potential safety issues that may need immediate correction.

**ITEM #6:**

The final report, as well as interim findings, shall be communicated to a senior level review board consisting of the FPL Chairman and Chief Executive Officer, the President and Chief Operating Officer, the Group Vice President Nuclear Energy Department, the plant manager, and Petitioners.

**ITEM #7:**

The licensee shall direct the outside organization to submit to the NRC a copy of the report of the appraisal recommendations resulting from the appraisal, and any and all drafts thereof, at the same time they are sent to the licensee or any of its employees or contractors. Prior notice shall be given the NRC and Petitioners of any meeting between the licensee and the organization to discuss the results.

**ITEM #8:**

The NRC and Petitioners shall designate a member of its staff to attend any such meetings as an observer. Additionally, the licensee shall consider the recommendations resulting from the appraisal and provide to the NRC within 30-days of the receipt of the appraisal an analysis of each such recommendation and the action to be taken in response to recommendation. The licensee shall also provide at that time a schedule for accomplishing these actions. Justification shall be

provided for any recommendation of the appraisal not adopted.

**ITEM #9:**

Pending the completion of the review of the results of the above independent appraisal program, the licensee shall implement a continuous on-shift oversight program to monitor the safety of plant operations, both in and out of the control room. The oversight program shall be implemented immediately and provide for the following details:

**DETAIL #1:**

At least one evaluator, whether licensee, employee or contractor, on each shift shall have held a senior reactor operator license or have experience in auditing or appraising commercial nuclear plant operations and not have been an employee at the St. Lucie nuclear station within the last two years.

**DETAIL #2:**

A guidance document will be issued which identifies the purpose of the program, the responsibilities of the personnel assigned to the program, reporting requirements, and the authority given to the evaluators to act where necessary to prevent personnel error and to assure quality performance. A copy of such duties and responsibilities shall be provided to the NRC. At a minimum the evaluators shall report observations of immediate safety significance to the shift supervisor and his direct supervisor. Daily reports of all activities addressing questionable operating practices shall be made to the Site Vice President with same day copies provided to the President of FPL. The President of FPL shall be directly responsible for the oversight program. A weekly summary report along with a compilation of daily reports shall be provided to the NRC.

**DETAIL #3:**

Following the licensee's review of the results of the independent appraisal program the licensee may seek to terminate the oversight program. Written justification

of the termination shall be provided to the NRC explaining the basis for termination after considering the significance of any appraisal or oversight findings in the area of plant operations.

2. that the Commission issue an ORDER designating a time and place for a public hearing and grant Petitioners leave to intervene at such hearing on behalf of the public;
3. that to emphasize the importance of ensuring improved communications, strict procedural compliance and maintaining a non-hostile work environment in which employees feel free to raise safety concerns to the licensee and a work environment which encourages employees to raise safety concerns directly to the NRC, Petitioners request that the NRC issue FPL a Notice of Violation and Proposed Imposition of Civil Penalty in the cumulative amount of Five Hundred Thousand Dollars (\$500,000) for repetitive violations at the St. Lucie nuclear station.

#### Basis and Justification for Request

Pursuant to Section 103, 161(i), 161(o) and 182 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 C.F.R. 2.204 and 10 C.F.R. Part 50, the NRC has authority to take enforcement action against FPL and to issue the aforementioned ORDER.

Pursuant to 10 C.F.R. 2.714, the NRC has authority and a duty to the public to grant Petitioners a public hearing regarding the issues herein. Moreover, Petitioners live within the NRC's "zone of interest" with respect to the St. Lucie nuclear station and can suffer the adverse health effects and property damage resulting from a nuclear accident at that station. Therefore, Petitioners have requisite standing to intervene in said hearing.

The licensee has failed to establish or implement procedures at the St. Lucie nuclear station to assure configuration control over safety related systems in the plant. Moreover, the licensee has on numerous times failed to meet Technical Specifications required for maintaining the plant. Petitioners and the public are very concerned with the licensee's implementation of its plant management controls and the effectiveness of previous corrective actions in regard to continued departures from approved procedures. The failure to adhere to approved procedures

and to maintain safety-related systems has been the subject of repetitive NRC enforcement actions. The licensee's attempts to improve the quality and usability of its procedures has failed. Additionally, remedial actions by licensee management to date have not been sufficiently effective to correct other problems at the St. Lucie facility including a general fear of employees to raise safety concerns to the licensee or to the NRC because of retaliatory conduct taken against employees by the licensee management for such conduct.

Petitioners seek NRC enforcement action against FPL because of the licensee's past poor performance and because of the numerous past civil penalties alone have been ineffective in assuring lasting safety improvements and compliance with NRC requirements. The licensee needs assistance in its efforts to improve the performance of the St. Lucie Nuclear Station. Audits and inspections by the NRC, Institute for Nuclear Power Operation, and FPL have extensively documented the operational difficulties which FPL has experienced over the years at St. Lucie. The Independent Appraisal will provide FPL a means to identify and focus primarily on the root causes of the documented problems, on recent corrective actions which FPL has initiated, and on additional corrective actions which the appraisal recommends.

St. Lucie has achieved considerable success as an operating plant in the past. This success was illustrated by past ranking of the performance of world nuclear power plants which showed St. Lucie Unit 1 as the highest ranked U.S. plant. However, St. Lucie over the last several years has not achieved the standard of excellence desired by FPL and required in today's nuclear industry environment. St. Lucie has experienced a series of events which indicate that the plant has not met FPL's goals and which have resulted in NRC enforcement actions. Thus, Petitioners seek an outside appraisal be conducted to review St. Lucie's performance to determine the root causes of deficiencies and to recommend appropriate corrective actions. Petitioners believe that the St. Lucie plant is operated with with too great a degree of control by FPL corporate management instead of needed direct control of the plant by experienced site management in direct control of plant operations. As a result, Petitioners believe that the St. Lucie plant has failed to develop the initiative, responsibility, and commitment to excellence that has been successfully nurtured at St. Lucie in the past.

Petitioners are concerned that performance deficiencies are attributable to leadership deficiencies reflected in the failure to establish and communicate effective goals for plant

improvement; an absence of firm policies established and enforced by management; insufficient management attention and follow-up; inadequate sense of personal accountability in the work force; a failure of management to adequately use information provided by the Quality Assurance and Quality Control organizations; a failure of management to maintain a proper level of attention to persistent problems in the security department; a lack of sufficient technical support and inadequacies in key support systems at St. Lucie; inadequate and inefficient system for controlling employee overtime work; a general employee attitude of accepting and overcoming plant equipment and support deficiencies rather than demanding excellence from support departments; and a failure of plant management to enhance employee training at the station.

In further support of Petitioners request to NRC action, Petitioners have enclosed with this correspondence five attachments documenting similar concerns as reported by the local media including but not limited to the following:

On December 13, 1994, the NRC issued the St. Lucie Nuclear Plant a highly favorable review, including top marks in its radiation protection program and external exposure control programs;

On April 20, 1995, the NRC cleared the St. Lucie plant of any federal violations after security breaches on November 19, 1994 where a security officer reported a magazine missing from his gun. A month later, the armory was found unlocked and opened leaving access to gun, ammunition and body armor. On March 16, 1995 a five round magazine was found in a briefcase carried by a plant supervisor.

On August 2, 1995, plant workers venting a reactor coolant pump failed to drop the temperature to the required 200 degree level before conducting repairs, leaving the reactor at 370 degrees. The plant, which typically runs at about 550 degrees is cited in October.

On January 22, 1996, a control room operator leaves his post to microwave his lunch and allows the unattended reactor to overheat. The control room operator asked another operator to watch his panel but didn't warn him he was in the process of adding water to the nuclear reactor. NRC agrees to pay a \$50,000 federal fine. The worker is suspended.

On April 29, 1996, the NRC sends the plant a scolding review for violations that persist even after corrective actions have

been completed for previous, similar violations. The criticisms include a failure with the radiation monitor and problems with the plant's emergency backup generator that could have left it inoperable.

On June 18-19, 1996, NRC inspectors and technicians remove 17 tools contaminated with radiation from the clean room, an area designated to be free of high levels of radiation. The tools had radiation levels up to 120 times acceptable levels. Inspectors later find that tools designated to be kept in radiation areas are often missing and have not been painted purple as required to identify them as being contaminated.

On August 17, 1996, an inspection of overtime logs finds 53 violations of regulations limiting the number of hours an employee is allowed to work. The abuses tracked by reviewing gate logs for 26 employees include one employee working 27 hours straight and another working 192 hours in a two week span. The NRC adds a third full-time inspector for the plant.

On November 26, 1996, the plant's emergency response organization is found understaffed and using a plan that doesn't address radiation according to an NRC report. Employees have also been undertrained in preparing for an emergency investigator say. A month later the NRC criticized the plant for using undertrained employees to calibrate radiation monitoring equipment.

On January 10, 1997, the plant failed to limit access to protected and vital areas of the plant to authorized workers. FPL agreed to pay a \$100,000 fine for that and related problems cited in the NRC report.

On February 14, 1997, the plant failed to notify pregnant visitors of the dangers posed by radiation.

On April 28, 1997, the NRC issued a favorable report that says the plant is generally characterized by safety conscious operations, good engineering and maintenance practices. Still, investigators criticize managers for the routine heavy use of overtime for reactor control operators. In that same month, plant officials find a makeshift crack cocaine pipe in a portable toilet brought in for temporary workers; and 70 workers are evacuated five days after the NRC's report because of high levels of radiation that escapes during a routine instrument replacement.

On June 12, 1997, about 120 workers picket the plant saying managers are failing to respond to workers' complaints.

On July 14, 1997, the plant's ongoing problem with tools in the radiation containment area surfaces again when an NRC report says workers have failed to log their use.

On February 2, 1998, the NRC issued a violation to FPL for repetitive problems with overtime abuses that indicate previous corrective actions have not been totally effective. While the violation remains a Level Four offense, the least severe of the penalties, the NRC warns in its report that continued abuses could escalate the actions, meaning a civil penalty would be likely.

On February 13, 1998, the NRC met with FPL plant officials after an inspector confirms that a reactor's emergency coolant system was operating for four years under specifications that could have caused it to overheat in an emergency.

Employee complaints have increased to 151 including 26 filed in 1997 with 67 complaints substantiated. The complaints range from allegations that plant officials ordered employees to dispose of unlabeled drums that could have contained waste products to concerns that emergency preparation is inadequate. These employee safety concerns resulted in dozens of code violation notices by the NRC and FPL receiving fines of \$262,500. Employees are concerned that the complaints indicate a breakdown in management; that supervisors do not address employees' safety concerns and workers are often fearful of retribution if they come forward. Licensee employee, Rick Curtis, stated that management does not deal with issues brought by the employees of the St. Lucie Nuclear Plant in a very productive and prudent manner; that if employees start to question the process too much, they're told that they're lazy and just trying to get out of work.

In January, 1997 FPL agreed to pay a \$100,000 fine to the NRC for failing to limit access to vital areas. The violations which were admitted by FPL during an NRC hearing included 27 former employees retaining active badges that would allow them into restricted areas. The same month an employee reported to the NRC that the plant allowed a pregnant visitor into the reactor area without notifying her of the dangers posed for an unborn child. Employees also told NRC that they were ordered to process drums containing an unidentified liquid with a bluish tint. The drums, which were not labeled as required by regulations, could have included waste products, oil separators or anti-freeze. An NRC investigation found the drums were insufficiently labeled.

On August 14, 1996, workers found three locked switches glued shut in a backup control room. Glue was also found in nine padlocks and two door locks in different areas of the plant fewer than three weeks before. The NRC called the gluing the worst acts of sabotage to a nuclear reactor ever.

In June, 1997 120 employees picketed the St. Lucie plant saying FPL managers fail to respond to workers' complaints. Rick Curtis, a licensee employee, said most employees fear retribution from plant managers if they file complainants and they sometimes hear about employees severely disciplined or fired if they draw attention to a problem. B.J. Davis stated that workers fear being labeled as troublemakers and passed over for promotions if they challenge authority; that no one wants to be seen as a troublemaker in the eyes of management.

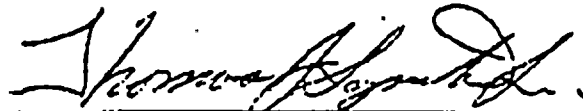
Since 1991, FPL has laid off almost a quarter of its work force and now has 10,000 employees statewide. The last wave of layoffs was in January 1996, when FPL dismissed 30 managers and 31 union employees in an effort to reduce its St. Lucie staff by 5 percent.

Ron Bowen, a Fort St. Lucie councilman stated that, I know they're out there to make a profit, but at what expense? We're talking about a nuclear power plant. They've gone from first to worst in a matter of years; that workers have told him cutbacks are being made despite apparent safety problems that might result, Bowen said.

For all the above stated reasons, Petitioners seek NRC action in this matter.

RESPECTFULLY SUBMITTED, this 5th day of March, 1998

... NATIONAL LITIGATION CONSULTANTS ...



Thomas J. Saporito, Jr.  
Executive Director

cc:

Hon. Bill Clinton, President  
United States of America  
The White House  
1600 Pennsylvania Ave., NW  
Washington, DC 20500

Inspector General  
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# Problems at the plant

## A chronology of problems

### St. Lucie Nuclear Plant

Since 1994, the number of employee complaints filed at the St. Lucie Nuclear Plant have increased. Here are some details about some of the problems that have been recorded there:

1994

#### TIMELINE

Dec. 13, 1994

The U.S. Nuclear Regulatory Commission gives the St. Lucie Nuclear Plant a highly favorable review, including top marks in its radiation protection program and "external exposure control programs."

April 20, 1995

The NRC clears the plant of any federal violations after security breaches: On Nov. 18, 1994, a security officer reported a magazine missing from his gun. A month later, the armory was found unlocked and opened, leaving access to guns, ammunition and body armor. On March 16, 1995, a five-round magazine was found in a briefcase carried by a plant supervisor.

Aug. 2, 1995

Workers venting a reactor coolant pump fail to drop the temperature to the required 200 degrees before conducting the repairs, leaving the reactor at 370 degrees. The plant, which typically runs at about 660 degrees, is closed in October.

Jan. 22, 1996

A control room operator leaves his post to microwave his lunch and allows the unattended reactor to overheat. The control room operator asked another operator to watch his panel but didn't warn him he was in the process of adding water to the nuclear reactor. Florida Power and Light agrees to pay a \$50,000 federal fine. The worker is suspended.

April 29, 1996

The NRC sends the plant a scolding review for violations that "persist even after corrective actions have been completed for previous, similar violations." The criticisms include a failure with the radiation monitor and problems with the plant's emergency backup generator that could have left it inoperable.

June 18-19, 1996

NRC inspectors and technicians remove 17 tools contaminated with radiation from the "clean room," an area designated to be free of high levels of radiation. The tools had radiation levels up to 120 times acceptable levels. Inspectors later find that tools designated to be kept in radiation areas are often missing and have not been painted purple, as required to identify them as being contaminated.

1996

Aug. 17, 1996

An inspection of overtime logs finds 53 violations of regulations limiting the number of hours an employee is allowed to work. The abuses, tracked by reviewing gate logs for 26 employees, include one employee working 27 hours straight and another working 182 hours in a two-week span. The NRC adds a third full-time inspector for the plant.

Nov. 26, 1996

The plant's emergency response organization is understaffed and using a plan that doesn't address radiation, according to an NRC report. Employees have also been undertrained in preparing for an emergency, investigators say. A month later, the NRC criticizes the plant for using undertrained employees to calibrate radiation-monitoring equipment.

## Complaints at the St. Lucie plant

Employee complaints have increased since 1993. Of the number of complaints, filed one was substantiated in 1993, and 26 in 1997.

1993 1994 1995 1996 1997

1997

Timeline continues on A4

Number of complaints

Number of complaints substantiated

Source: U.S. Nuclear Regulatory Commission  
Graphic Designer: DAVID HOLDEN

## Employee complaints repetitive, increasing

By Eric Alan Barton  
of the News Staff

**HUTCHINSON ISLAND** — The St. Lucie Nuclear Plant had more substantiated safety complaints by employees last year than any other nuclear plant in the nation, federal records show.

U.S. Nuclear Regulatory Commission investigators say managers haven't corrected long-standing problems and have ignored new policies meant to correct them.

NRC documents released to The Stuart News/Port St. Lucie News show federal officials substantiated 26 of the 69 complaints workers made in 1997 about plant safety and working conditions. That's more substantiated complaints than at any of the nation's 65 other plants and part of a trend that puts St. Lucie near the top of the list in number of complaints by employees since 1993.

The complaints range from allegations that plant officials ordered employees to dispose of unlabeled drums that could have contained waste products, to concerns that emergency preparation is inadequate.

From 1993 through 1997, federal investigators corroborated 67 of the 151 complaints that plant employees made to the NRC. The investigators issued dozens of code violation notices and fined the plant's owner.

Please see COMPLAINTS on A2

## Turnaround precedent Three Mile Island led to changes

By Eric Alan Barton  
of the News Staff

It was an early spring day in 1979 when the nuclear power industry changed forever.

A control panel malfunction at Three Mile Island Nuclear Plant dropped the level of coolant circulating in Unit 2. The overheating melted 90 percent of the reactor core and damaged a significant amount of the plutonium fuel.

Residents were evacuated from the rural area near Middletown, Pa., as radioactive gases escaped from the plant.

Since then, Three Mile Island has become one of the best-performing plants in the country. Unit 1, the reactor unaffected by the meltdown, set a record last summer for running 116 days without a glitch.

"The accident was certainly a pivotal point for the whole industry, not just Three Mile Island," said plant spokeswoman Laura Karinch.

Please see CHANGES on A3

# COMPLAINTS

■ CONTINUED FROM A1

Florida Power and Light Co., \$262,500, an NRC spokesman said. About \$200,000 of those fines have been levied since 1993.

Plant officials said the high number of complaints shows employees are interested in bringing safety concerns forward.

"I'm happy to find a problem any way I can find it, whether it comes from the NRC or whether it comes from our people," said Art Stall, vice president of the plant. "I'll take problems any way I can get it to be fixed."

But some employees say the complaints indicate a breakdown in management. Supervisors do not address employees' safety concerns, and workers are often fearful of retribution if they come forward, they said.

Most employees contacted for this report declined to comment or did not return phone calls.

"Management does not deal with issues brought by the employees of the St. Lucie Nuclear Plant in a very productive and prudent manner," said Rick Curtis, local president of the International Brotherhood of Electrical Workers. "If employees start to question the process too much, they're told that they're lazy and just trying to get out of work."

Despite the management problems cited in the reports, NRC spokesman Ken Clark said the complaints don't indicate a threat to the environment or people living near the plant.

"The NRC staff feels the plant is sufficiently safe to license and operate," said Clark, who works at the NRC's regional office in Atlanta. "No concerns have been validated that would prompt the NRC to shut down the plant."

NRC officials say the violations at the St. Lucie plant haven't reached the point where regulators would order a shutdown. A shutdown would come only if there's an immediate safety concern.

Documents released under a Freedom of Information Act request made by the News include 1,200 pages of NRC paperwork generated from employee complaints and inspector reports. The complaints were reported to the NRC by plant employees, investigated and made public after the plant was notified of the findings.

The News requested the documents in November and received them in January. The reports are public records but rarely obtained because of the lengthy process for providing copies.

NRC officials said some investigations

of last year's complaints are still under way and could be added to the 26 that have been corroborated.

Federal investigators documented years of problems at the plant, including:

■ Excessive abuses of overtime. Investigators found 53 violations in a month selected for evaluation of workers' records. The violations included one employee working 27 consecutive hours and another who worked 182 hours in two weeks.

■ Outdated and understaffed security response plans. Plant officials said their manuals and plans have been updated, and no recent reports contradict them.

■ Radioactive tools taken from controlled areas to storage spots designated for equipment free of contamination. The first corroborated complaint came in June 1996, and more complaints were made late last year.

NRC inspectors and technicians in June 1996 removed 17 tools contaminated with radiation from the "clean room," an area designated to be free of high levels of radiation.

Inspectors learned that tools designated to be kept in radiation areas often are missing and have not been painted purple, which is required to identify them as contaminated.

Although some of the misplaced tools had radiation as high as 120 times acceptable levels, NRC senior radiation specialist Fred Wright said they probably had little effect on employees, even if they picked them up with bare hands.

"It's a very low level of activity that's allowed under those regulations," said Wright, who spent several months investigating the plant as part of a three-person NRC team that works there full time. "Holding a hammer with that kind of radiation on it would not likely cause any health problems for the user."

Stall, the plant vice president, said the problem with radioactive tools is in the past.

"We haven't had issues at St. Lucie with that in years," he said. "We've had numerous inspections in the last two or three years looking at that, which we've done very well at."

"We pay much more attention to details, tracking the tools, marking the tools, training the employees," Stall said.

## Complaints, cutbacks

Nonetheless, NRC officials cited the plant July 14 for failing to log the use of radioactive tools. The NRC said the plant

allowed tools to enter and exit the Unit 2 containment building without being logged.

In addition to those complaints, the records include dozens of miscellaneous grievances substantiated by federal investigators, including alleged careless methods of repairing radioactive devices and a failure to limit access to "vital areas of the plant."

FPL agreed to pay a \$100,000 fine in January 1997 to the NRC for failing to limit access to vital areas. The violations, which were admitted by FPL during an NRC hearing, included 27 former employees retaining "active" badges that would allow them into restricted areas, according to an inch-thick report on the problem.

The same month, an employee reported to the NRC that the plant allowed a pregnant visitor into the reactor area without notifying her of the dangers posed for an unborn child. Federal investigators in a February 1997 report said the plant did not violate any regulations but recommended that an "independent look should be made (at) the practice of allowing female visitors on site without querying them."

Early in 1995, employees told the NRC they were ordered to process about 75 drums containing an unidentified liquid with a bluish tint. The drums, which were not labeled as required by regulations, could have included waste products, oil separators or anti-freeze, the employees said. An NRC investigation found the 55-gallon drums had insufficient labels because they didn't indicate what was in the drums. Twenty other unidentified drums, including five containing an unknown material, were found in the area.

Not all of the plant's problems have been kept between managers and NRC officials. Glitches at the plant have made headlines nationally in recent years.

On Jan. 22, 1996, a control room operator left his post to microwave his lunch and allowed the unattended reactor to overheat. The control room operator had asked another operator to watch his panel but didn't warn him he was adding water to the nuclear reactor. FPL agreed to pay a \$50,000 federal fine for the accident and the worker was suspended.

Workers performing a routine inspection Aug. 14, 1996, found three locked switches glued shut in a backup control room. Glue also was found in nine padlocks and two door locks in different areas of the plant fewer than three weeks before. The NRC called the gluing the

worst acts of sabotage to a nuclear reactor ever.

Nuclear watchdog groups say the complaints should not frighten local residents.

"If I lived near the plant, I would not be concerned about the high number of complaints," said David Lochbaum, a nuclear safety engineer at the Union of Concerned Scientists, a watchdog group in Washington, D.C.

However, Lochbaum said there should be concern about management backlashes alleged by some employees who filed safety complaints.

The NRC hasn't fully substantiated complaints that whistle-blowers have been subjected to backlash by FPL managers. But about 120 employees picketed the plant in June, saying FPL managers fail to respond to workers' complaints.

Curtis, who has spent 18 years at the plant and is now a maintenance foreman, represents almost half of the plant's 850 union workers. He said most fear retribution from plant managers if they file complaints, and they sometimes hear about employees severely disciplined or fired if they draw attention to a problem.

It's not that employees are afraid of losing their jobs, said B.J. Davis, who is in charge of the union's safety committee, a full-time position at the plant. Instead, workers fear being labeled as troublemakers and passed over for promotions if they challenge authority.

"We have a system here where if a person doesn't think something is safe, he doesn't have to work," said Davis, who has worked at the plant for 20 years. "But no one wants to be seen as a troublemaker in the eyes of management."

Some critics of the plant's operations attribute that to FPL's aggressive effort to streamline its work force. The plant announced a new round of layoffs in January; 45 workers, or about 5 percent of the plant's work force, are expected to be laid off.

Since 1991, FPL has laid off almost a quarter of its work force and now has 10,000 employees statewide. It owns two nuclear power plants — the other is Turkey Point in south Miami-Dade County — and provides electrical services to dozens of municipalities.

The last wave of layoffs was in January 1996, when FPL dismissed 30 managers and 31 union employees in an effort to reduce its St. Lucie staff by 5 percent.

"I know they're out there to make a profit, but at what expense? We're talking about a nuclear power plant," said Ron Bowen, a Fort St. Lucie city councilman

and member of the St. Lucie County Fire District Board. "They've gone from first to worst in a matter of years."

Bowen said workers have told him cutbacks are being made despite apparent safety problems that might result.

He hopes employee complaints will spawn a federal or local investigation of the plant.

## 'Canaries in a coal mine'

Local safety officials support the plant's efforts to prepare for emergencies.

"We work very well together with the St. Lucie Nuclear Plant," said Jack Southard, the county's public safety manager.

"We have a very good relationship with Florida Power and Light. They have always been responsive to our ideas on how to update emergency plans."

But complaints are likely to increase if managers refuse to listen to employees, said Jim Riccio, an attorney with the Critical Mass Project at the watchdog group Public Citizen in Washington.

"Employees in a nuclear plant are like canaries in a coal mine," said Riccio, who leads Public Citizen's program to track problems at nuclear plants. "Obviously, management ignores employees' concerns at their own risk."

But Curtis defends the plant's procedures and employees' attention to safety details. Most of the violations NRC has cited stem from breaks in procedures, he said. Those procedures are designed to instill in workers a disciplined approach to the job, he said.

"It's no different than if someone told you, 'When you show up for work, I want you to turn on the lights and then start the coffeepot.' If you came in and did it in the opposite order they'd cite you for a violation," Curtis said.

The high number of safety concerns should not worry residents that employees are being exposed to high levels of radiation, he said.

"By no means are we coming out of that plant contaminated," Curtis said.

A major accident, such as an explosion or a radiation leak, is highly improbable at the plant despite its documented problems, said Dr. Robert Bari, chairman of the nuclear energy department at the Brookhaven Nuclear Laboratory in Upton, N.Y.

"Residents absolutely should have no concern about living near the plant," Bari

Please see COMPLAINTS on A4

## COMPLAINTS

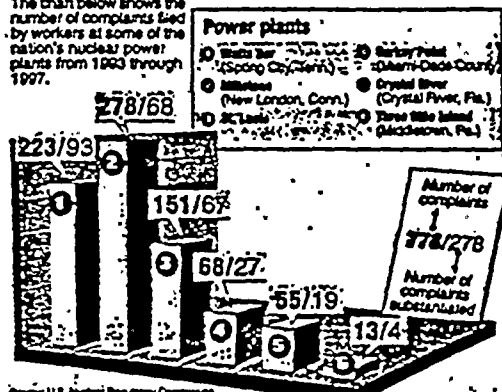
### A chronology of problems St. Lucie Nuclear Plant

#### TIMELINE — continued

- 1997**
- Jan. 10, 1997**  
The plant has failed to limit "access to protected and vital areas of the plant" to authorized workers. FPL agreed to pay a \$100,000 fine for that and related problems cited in the report.
  - Feb. 14, 1997**  
The plant has failed to notify pregnant visitors of the dangers posed by radiation. However, the complaint, filed by an employee and corroborated by investigators, is not a violation of federal regulations.
  - April 28, 1997**  
The NRC issues a favorable report that says the plant is "generally characterized by safety conscious operators, good engineering and maintenance practices." Still, investigators criticize managers for the "routine heavy use of overtime for reactor control operators." In that same month, plant officials find a makeshift crack cocaine pipe in a portable toilet brought in for temporary workers. And 70 employees are evacuated five days after the NRC's report comes out because of high levels of radon that escape during a routine instrument replacement.
  - June 12, 1997**  
About 120 workers picket the plant, saying managers are failing to respond to workers' complaints.
  - July 14, 1997**  
The plant's ongoing problem with leaks in the radon containment area surfaces again when an NRC report says workers have failed to log their use.
  - Feb. 2, 1998**  
The NRC issues a violation for "repetitive" problems with overtime abuses that indicate "previous corrective actions have not been totally effective." While the violation remains a Level Four offense — the least severe of the penalties — the NRC warns in its report that continued abuses could escalate the action, meaning a civil penalty would be likely.
  - Feb. 13, 1998**  
NRC regulators meet with power plant officials after an inspector confirms that a reactor's emergency coolant system was operating for four years under specifications that could have caused it to overheat in an emergency.

#### A comparison Other power plants

The chart below shows the number of complaints filed by workers at some of the nation's nuclear power plants from 1993 through 1997.



— CONTINUED FROM A2

said.

He said Floridians probably are exposed to more radiation from the sun than from living near the St. Lucie plant.

Power plants use low-level plutonium, compared with the fuel used in bombs, and rarely ship out spent waste, instead storing it in water-filled tanks encased in concrete, Clark said. The St. Lucie plant's two pressurized reactors, built in 1976 and 1983, put out a combined 1,660 megawatts, enough to power a medium-sized city.

In comparison, the reactors generate nearly 14 times the 120 megawatts put out by the Fort Pierce Utilities Authority's steam-

generated plant on Indian River Drive.

Federal codes require nuclear plant employees to wear badges that monitor their intake of radiation. If an employee goes above 5 rems, a measure of radiation exposure, they typically are reassigned to an area of the plant where they would not be exposed to radiation.

In 1996, the last year for which figures are available, only one St. Lucie worker reached a level of 2 rems, according to NRC records. Although that's 20 times the typical radiation exposure from Florida sunlight, it's still well within parameters set by NRC inspectors. Eighteen other plants recorded as many as nine workers reaching the same amount of exposure. None of the workers exceeded the 5 rems maximum.

Nevertheless, Bari said the substantiated "complaints suggest plant managers should pay closer attention to procedures.

"There's no secret solution" to nuclear plant problems, he said. "It's simply good management.

We have to show them safety is as important as producing electricity."

News staff writer Andy Reid contributed to this report.

## CHANGES

■ CONTINUED FROM A1

The disaster has become the turnaround success story of the embattled industry, and experts say it led to new benchmarks for safety among nuclear plants.

Since then, the U.S. Nuclear Regulatory Commission has shut down several nuclear plants for failing to follow regulations and has investigated others for errors.

At the St. Lucie Nuclear Plant, where more employee concerns were substantiated last year than at any other plant in the nation, three NRC investigators work full time to oversee energy production. The plant has been cited for dozens of violations and has paid \$200,000 in fines in recent years.

Elsewhere, several reactors have been shut down after employees and NRC officials reported plant errors. Several of the plants ordered to cease operations during the past decade have resumed functioning, or will soon, with what spokesmen say is a revamped interest in safety.

Industry experts say troubled power plants can turn their operation around with a management team that stresses communication between employees and supervisors, especially regarding safety.

"The secret to a well-running plant is simply the management's commitment to safe operation," said Jim Riccio, an attorney with the Critical Mass Project at the watchdog group Public Citizen in Washington.

Most experts agree that paying continued attention to problems

eventually will turn a plant around and keep federal regulators from shutting it down.

"The plant that is not meeting NRC standards today will likely be the high-performing plant of tomorrow," said Steve Unglesbee, spokesman for the Nuclear Energy Institute.

Plants that don't find ways to generate power cheaply and safely will be history in the next decade, Riccio said. After lawmakers broke up utility monopolies in recent years, the high cost of operating nuclear plants probably will break some power companies.

"What many companies are finding is that it is impossible to build and run both an economical and safe nuclear reactor," Riccio said. "Our flirtation with the atom is over."

### Across the nation

The Tennessee Valley Authority power company shut down its five reactors in 1985 after safety concerns expressed by employees were backed by federal regulators.

Problems stemmed from managers' focus on energy first and safety second, said Terry Johnson, a spokesman at the Brown's Ferry plant in Athens, Ala.

"When we first started in the 1960s, nuclear power was new in the country. There was a focus on generating electricity and making money," Johnson said.

After the shutdowns, the TVA replaced top managers at the five plants and set up a new program of safety checks. During the six

years of the shutdowns, the plants spent \$1 billion to make safety changes. They replaced 138 miles of cable, changed 7,000 pipe hangers and reviewed 1,100 procedures, among the efforts.

The authority's two units in Alabama and three in Tennessee, which supply electricity to about 2½ million people, are now up and running, and employees reported few problems to the NRC last year.

"Our focus now is preventing shutdowns by continually checking safety procedures," Johnson said.

Northeast Utilities' three plants in Connecticut were shut down indefinitely in 1996 after federal regulators discovered the power company was disregarding its safety manuals, operating instead on specifications set by employees.

The problems were brought to light after investigators discovered in December 1995 that the Millstone 1 reactor in New London, Conn., was adding too much radioactive waste to its spent fuel pool. Internal reports also stated the plant's real cost had eroded morale.

With its reactors shut down, the utility has had to buy electricity from other sources to serve its 1.6 million customers in three states. Industry watchdog groups say the company risks bankruptcy if it's

unable to meet an April deadline to get one of its reactors operating.

Terrence McIntosh, spokesman for the Millstone Station plant, said management hopes to correct problems by placing new emphasis on reporting safety concerns. Previously, the company encouraged employees with safety concerns to go to their supervisor, then an employee concern program and finally to the NRC if the problem wasn't fixed.

"Now we encourage employees to go to anybody. If an employee's got a concern, we want them to come forward somehow, no matter who they tell," McIntosh said.

The company "lowered the threshold of what a concern is," McIntosh said, and now investigates any concern an employee reports. The program has helped decrease substantiated complaints from 20 in 1993 to four last year.

"It's very difficult to turn around," McIntosh said. "You can't dictate trust, you can't legislate trust, you have to earn it."

### FPL and safety

Industry experts say the high number of complaints at the St. Lucie Nuclear Plant shows employees are interested in making safety changes. But many nuclear

power watchdog groups warn that the substantiated complaints could show managers aren't answering employees' concerns.

Plant managers disagree. They declined to comment for this report, but Florida Power and Light Co., the owner of the plant, released a statement that says company policy encourages employees to come forward.

"FPL's nuclear division policy encourages employees to share any concerns with their supervisors," the statement said. "Employees who do not wish to discuss their concerns with supervisors can bring them to the attention of FPL's employee concerns program, the Nuclear Regulatory Commission, or both."

NRC investigators have cited the plant for the same violations several times during the past year, including overtime abuse and a failure to contain radioactive tools in a safe area. Investigators have said the plant has failed to implement policy changes to fix problems.

Management needs to emphasize to workers that it will correct problems reported to supervi-

sors, said David Lockbaum, a nuclear safety engineer with the Union of Concerned Scientists. The NRC complaints probably have resulted from employees not getting satisfaction after reporting problems to supervisors, he said.

"It may not be that the plant is ignoring these concerns," Lockbaum said. "It could be that the employee complaints are something that need to be fixed and are added to a list of other things that need to be fixed first."

"If the employee doesn't see it getting corrected right away, he's likely to call the NRC," he said.

Union head Rick Curtis said employees fear they will be fired or demoted if they embarrass the company or cost it some money.

Curtis said plant supervisors have warned him against talking to anyone outside the plant. He said he has earned respect among management and that protects him against backlash.

"Sometimes the plant goes overboard with discipline in order to scare employees into compliance," Curtis said. "They do this instead of training employees on how to do it right the first time."

# St. Lucie Nuclear Plant cited for too much worker overtime

**Federal investigators have accused plant managers of ignoring or encouraging the problem and failing to implement plans to correct the abuses.**

By Eric Alan Karlson  
of the News staff

**HUTCHINSON ISLAND** — After eight hours modifying a valve that controls the emergency coolant to a turbine engine, Larry wasn't ready to call it quits.

A maintenance supervisor at the St. Lucie Nuclear Plant, Larry said the repairs required to make the valve more efficient were too important to pass off to the next shift.

Larry was so interested in making that job turn out perfectly he ended up staying for a second shift. And a third. And part of a fourth.

All told, Larry spent 27 hours working at the plant over two days in June 1996.

"There's a lot of precision machinery in there, and I didn't want to turn it over to someone else," said Larry, who asked that his real name not be used, citing fears of retribution from plant management. "There's a lot of employees at the plant that take a personal interest to make sure the job is done right."

But federal investigators didn't

agree with Larry's determination to stay on his task. In an Aug. 9, 1996, report a Nuclear Regulatory Commission investigator cited Larry's work during those two days as one of the worst of 33 overtime abuses in a month.

Those abuses included another worker's 182 hours on the job during two weeks and seven other examples of excessive overtime. Many of those monitored from May 13 to June 13, 1996, included employees with "responsibilities for safety-related work," the NRC stated.

The report is included in 1,200 pages of NRC documents released to *The Stuart News/Port St. Lucie News* in response to a federal Freedom of Information Act request. The names of employees who report problems to the NRC are confidential, but the agency accidentally released some names in the documents. The names of some employees contacted for this report came from those records.

Of the NRC code violations at the St. Lucie plant during recent years, most were for excessive overtime. Federal investigators have accused plant managers of ignoring or encouraging the problem and failing to implement plans to correct the abuses.

Executives and managers with Florida Power and Light Co., the owner of the plant, did not address overtime complaints during interviews for this report. But

they said St. Lucie's problems are in the past and often blamed mishaps on former managers.

"We did not have the right people in there managing the plant," said Dennis Coyle, FPL general counsel. "They hadn't developed a real need to do it by the book ... we've been catching up on that."

Plant managers have told the NRC they've solved the problem by installing a computer system to quash unapproved overtime.

"Each employee has an individual responsibility to use the (computer) program to make sure they don't violate the legal limits," said FPL spokesman Dale Thomas.

Thomas said it's too early to evaluate the new system.

But an NRC investigator Feb. 2 sent the plant another violation notice for overtime abuse and warned that further misuses "could result in escalated enforcement action." That action could be a civil penalty of tens of thousands of dollars.

The violations stem from a plant regulation set in accordance with federal law that forbids three types of overtime abuses: workers spending 16 hours on the job in

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24 hours; 24 hours at work in a 48-hour period; and 72 hours in a seven-day period. The regulation also recommends a break of at least eight hours between shifts.

Employees typically work beyond the parameters in efforts to meet the overly ambitious expectations of management, said Rick Curtis, local president of the International Brotherhood of Electrical Workers.

The plant's new system to restrict overtime might work with employees who use a computer, but many don't have access to a terminal or even have a password to get signed on to the program, Curtis said.

Many have simply taken their

If they don't have access to (the computer system), then they certainly have access to a supervisor," Thomas said.

Curtis said Larry's 27-hour day is not typical. Workers rarely spend more than 16 hours on a shift.

"Yes, 27 hours straight is too long for anybody to work," said Curtis, who typically leads a team of welders who work on areas outside the plant's two reactors. "You just can't work that long with the hazards of a job like this."

Larry said it was his choice to work the 27-hour shift. He said management rarely asks anyone to work long overtime hours, but many employees stay the extra time to get the job done.

"They've got expectations, but they don't force workers to stay longer," he said. "It's our choice to stay, and we do it to get the job done."

News staff writer Andy Reid contributed to this report.

names off a list of employees willing to work overtime because they can't get the computer's approval before working the extra time. Curtis said that action could hurt the plant in an emergency because fewer workers could be called in to help.

Even if employees don't have access to the computer system, they are required to check with a supervisor before working overtime, Thomas said.

"It's a two-tiered requirement.

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