



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
December 7, 1987

MEMORANDUM FOR: Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation

FROM: Lawrence J. Chandler  
Assistant General Counsel for Enforcement  
Office of the General Counsel

SUBJECT: 2.206 PETITION INVOLVING THE WOLF CREEK  
GENERATING STATION

In a petition dated November 12, 1987, the Nuclear Awareness Network (NAN) has requested, pursuant to 10 C.F.R. 2.206, that the NRC institute an investigation to determine whether licensees are satisfactorily maintaining security (and control over activities at the site in general) at the Wolf Creek Generating Station (WCCS). According to NAN, members of the public presently are being exposed to undue radiation when they trespass into WCCS restricted areas to fish in the WCCS cooling lake. NAN further claims that the easy access to the cooling lake presents an emergency planning concern since unauthorized members of the public might be on site during a radiological emergency, and that this easy access also represents a security breakdown which could be exploited by terrorists.

We have enclosed for your use a draft letter of acknowledgment and a Federal Register notice. My office will assist you and your Staff in developing a response to the petition. Please place my office on concurrence for any correspondence concerning these petitions.

A handwritten signature in dark ink, appearing to read "Lawrence J. Chandler", is written over the typed name.

Lawrence J. Chandler  
Assistant General Counsel for Enforcement  
Office of the General Counsel

Enclosures:

1. Draft acknowledgment letter
2. Federal Register notice
3. Copy of Petition

cc: W. Olmstead, OGC  
R. Martin, RIV  
J. Lieberman, OE

CONTACT: Lee Dewey, OGC 81 02 -0  
492-7036

8712210135 871216  
PDR ADOCK 05000482  
F PDR

Stevi Staphens, Director  
Robert V. Eye, Counsel  
Nuclear Awareness Network  
1347½ Massachusetts  
Lawrence, Kansas 66044

RE: 2.206 PETITION REGARDING WOLF CREEK GENERATING  
STATION

Dear ~~Mr.~~ Petitioners:

This is to acknowledge receipt of your petition dated November 12, 1987 requesting, pursuant to 10 C.F.R. § 2.206, that the Nuclear Regulatory Commission institute an investigation to determine whether security is being satisfactorily maintained at the Wolf Creek Generating Station (WCGS) to protect the public from exposure to radiation and to prevent terrorist activities. As a basis for your request, you assert that members of the public are presently trespassing into restricted WCGS areas to fish at the WCGS cooling lake and that there have been past examples of inadequate security at WCGS.

We are evaluating the issues raised in your petition and will respond to your request within a reasonable time.

Enclosed for your information is a copy of a notice which is being filed with the Federal Register.

Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation

Enclosure: As stated

cc: Licensee

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50- ]

KANSAS GAS AND ELECTRIC COMPANY, ET. AL.

RECEIPT OF PETITION FOR DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

Notice is hereby given that Ms. Stevi Stephens and Robert V. Eye on behalf of Nuclear Awareness Network have requested that the Nuclear Regulatory Commission institute an investigation pursuant to 10 C.F.R. § 2.206 to determine whether security is being satisfactorily maintained at the Wolf Creek Generating Station (WCGS) to protect the public from exposure to radiation and to prevent terrorist activities. The alleged basis for this requested action is that members of the public are presently trespassing into restricted WCGS areas to fish at the WCGS cooling lake and that there have been past examples of inadequate security at WCGS.

This petition is being handled as a request for action pursuant to 10 C.F.R. § 2.206 of the Commission's regulations and, accordingly, appropriate action will be taken on the request within a reasonable time. Copies of the petition are available for inspection in the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555.

Dated at Bethesda, Maryland this \_\_\_ day of <sup>December</sup>~~June~~, 1987.

FOR THE NUCLEAR REGULATORY COMMISSION

\_\_\_\_\_  
Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation



OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

PAPER NUMBER: CRC-87-1310 LOGGING DATE: Nov 16 87  
ACTION OFFICE: EDO  
AUTHOR: S. Stephens  
AFFILIATION:  
LETTER DATE: Nov 12 87 FILE CODE: ID&R-5 Wolf Creek  
SUBJECT: Inadequate security at the Wolf Creek Generating  
Station, Burlington Kansas  
ACTION: Appropriate  
DISTRIBUTION: Docket  
SPECIAL HANDLING: None  
NOTES: Please advise SECY of action taken  
DATE DUE:  
SIGNATURE: . DATE SIGNED:  
AFFILIATION:

Rec'd Off. EDO

Date 11-17-87

Time 3:15p





November 12, 1987

# nuclear · awareness · network

1347 1/2 massachusetts · lawrence, kansas 66044 · (913) 749-1640

US Nuclear Regulatory Commission  
Washington, D.C. 20555

Re: Inadequate Security at the Wolf Creek Generating Station,  
Burlington, Kansas

Dear Commissioners:

On October 4, 1987, the Kansas City Star published a front page story entitled "Nuclear Fishing? Anglers want big ones at Wolf Creek." A copy of the story is attached.

The Kansas City Star report indicates the Kansas Gas and Electric Company (KG&E) fails to maintain adequate security at Wolf Creek to protect the public from exposure to radiation.

According to the story, access to the Wolf Creek cooling lake, that contains radioactive effluents discharged by the plant, is an easy matter. The story states that, "many areas are protected only by weeds or a short barbed-wire fence." It further notes that even though it is posted, "all it takes to get to the lake is determination and perhaps a pair of boots."

Additionally, it appears members of the public routinely eat fish caught in the radioactive waters. The story quotes Mr. Bob Rainbolt, who operates a local bait shop and presumably talks frequently with local anglers, as saying:

Honest people are the only ones around here who haven't gotten fish out of that lake. The fishermen sneak in there at night. With a full moon, you don't even need a lantern...Everyone I've talked to say there's something wrong if you can't get some nice catches out there.

NAN would also point out that, according to the story, the Coffey County Attorney has never been presented with a case of criminal trespass on the lakeshore. If trespassing is as easy and frequent as the story indicates, KG&E neither maintains required security nor takes legal action against trespassers to deter future trespassing. Reports of lax security coupled with lack of prosecution are open invitations for continued illegal trespassing at the nuclear facility.

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Although the news story asserts that fishing in radioactive waters may be "perfectly safe," we note that 32 radionuclides are routinely discharged into the Wolf Creek lake. Several have radioactive half-lives exceeding ten years, and both Tritium and Cobalt-58 have been detected in the lake's vegetation and on the lakeshore.

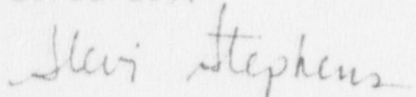
As stated in the Wolf Creek Final Environmental Statement, eating fish from the cooling lake is a pathway "through which persons may be exposed to radiation originating in a nuclear power reactor." Such exposure raises serious questions regarding damage to the public health at Wolf Creek, and we would remind you of the NRC statement that:

Exposure to even low levels of radiation...is generally believed to increase the likelihood of certain diseases and to increase certain genetic effects. Since these effects may be evidenced many years after the exposure, they are classed as long-term health effects. These include latent cancer fatalities, genetic defects and thyroid illnesses.--Reactor Safety Study, NUREG 75/014.

NAN believes that the situation at Wolf Creek, as reported by the Kansas City Star, warrants NRC action. Therefore, we have filed a 2.206 Petition requesting a full investigation, with appropriate enforcement, fines and corrective action, if needed.

Considering the serious deficiencies pointed out by the newspaper, we request that NRC officials expedite action on the petition. Failure to exclude people from restricted areas where exposure to radiation can occur raises very serious public health questions. Additionally, K&B's failure to maintain security seriously impedes its ability to evacuate areas around the plant in a radiological emergency. A copy of the petition is attached.

Sincerely,



Stevi Stephens, Director



BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

PETITION PURSUANT TO 10 CFR PART 2.206

1. The Petitioner, Nuclear Awareness Network (NAN), is a not-for-profit organization based in Lawrence, Kansas. NAN is concerned with, inter alia, the safe and lawful operation of the Wolf Creek Generating Station (WCGS).

2. WCGS is operated by the Wolf Creek Nuclear Operating Corporation, a licensee of the Nuclear Regulatory Commission (NRC).

3. On October 4, 1987 the Kansas City Star published a story on page one entitled "Nuclear Fishing?" and subtitled "Anglers Want The Big Ones At Wolf Creek." A copy of this story is attached hereto, made a part hereof and is marked as Exhibit 1.

4. The story referenced in paragraph 3 indicates that individuals are penetrating the WCGS site boundary and fishing in the WCGS cooling lake. An individual indentified in the story as Bob Rainbolt is quoted as follows: "The fishermen sneak in there at night. With a full moon, you don't need a lantern...Everyone I've talked to says there's something wrong if you can't get some nice catches out there."

5. The story referenced in paragraph 3 also states that signs are posted stating that the area is private property and that no trespassing is allowed. However, the story further states that "all it takes to get to the lake is determination and perhaps a pair of boots. Many areas are protected only by weeds or a short barbed-wire fence."

6. Pursuant to NRC regulations set forth at 10 CFR Part 73.40(a) the licensee is required to establish and maintain a system designed to "provide physical protection against radiological sabotage" at sites where licensed activities are conducted.

7. Pursuant to NRC regulation set forth at 19 CFR Part 73.45(c) licensees are required to "[P]ermit only authorized activities and conditions within protected areas..." This regulation also requires licensees to establish "(i) [C]ontrols and procedures that establish current schedules of authorized activities and conditions in defined areas"; "(ii) [B]oundaries to define areas within which the authorized activities and conditions are permitted; and "(iii) [D]etection and surveillance subsystems and procedures to discover and assess unauthorized activities and conditions and communicate them so that response can be such as to stop the activity or correct the conditions to satisfy the general performance objective of Part 73.20(a)."



8. Pursuant to NRC regulations set forth at 10 CFR Part 73.45(f) licensees are required to restrict access to protected areas and to have in place a system designed and maintained for the purpose of detecting and responding to any unauthorized penetration of the protected area.

9. Pursuant to NRC regulations set forth at 10 CFR Part 73.2(g) a "protected area" is defined to mean "an area encompassed by physical barriers and to which access is controlled."

10. Pursuant to NRC regulations set forth at 10 CFR Part 73.2(f)(i) "physical barrier" means "[F]ences constructed of No. 11 American wire gauge, or heavier wire fabric, topped by three strands or more of barbed wire or similar material on brackets angled outward between 30 degrees and 45 degrees from the vertical, with an overall height of not less than eight feet, including the barbed topping."

11. Pursuant to NRC regulations set forth at 10 CFR Part 50.47 and Appendix E, the licensee is required to establish and maintain adequate emergency plans and conduct periodic exercises to test and evaluate the efficacy of any emergency plan in the event of a radiological emergency.

12. Pursuant to NRC regulations set forth at 10 CFR Part 100.3(a) "exclusion area" is defined in pertinent part as follows: "Exclusion area means that area surrounding the reactor, in which the reactor licensee has the authority to determine all activities including exclusion or removal of personnel and property from the area."

13. Pursuant to NRC regulations set forth at 10 CFR Part 20.3(a)(14) "restricted area" is defined in pertinent part as follows: "any area access to which is controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials."

14. According to WCGS Technical Specifications set forth at section 5.1.1 and illustrated by figure 5.1-1 the "exclusion-restricted area" is a 1200 meter radius circle centered around Unit 1 containment."

15. The WCGS Technical Specifications as set forth at Section 5.1.3 provide in pertinent part that "[T]he UNRESTRICTED AREA boundary may coincide with the Exclusion (fenced) Area boundary, as defined in 10 CFR 100.3(a), but the UNRESTRICTED AREA does not include areas over water bodies."

16. Petitioner requests that the Commission and staff take administrative notice of other security problems at WCGS including but not limited to the Report to Congress on Abnormal Occurrences, July-September 1986, pp.9-10, NUREG 0090. This report indicates that the subject breakdown in security at WCGS was a serious failure to comply with NRC regulations pertaining to physical barriers. A copy of the pertinent part of this report is attached hereto, made a part hereof and is marked Exhibit 2.

17. Petitioner requests that the Commission and staff take administrative notice of the findings in the NRC report entitled "Trends and Patterns Analysis of the Operational Experience of Newly Licensed United States Nuclear Power Reactors", August, 1986, AEOD/P604. At page 13 of this report it is noted that WCGS experienced an above average number of security events beginning six to ten months after issuance of full power license. A copy of the pertinent part of this report is attached hereto, made a part hereof and is marked Exhibit 3.

18. Petitioner requests that the Commission and staff take administrative notice of the NRC Information Notice Number 87-27 dated June 10, 1987 entitled "Iranian Official Implies Vague Threat to U.S. Resources" that alerts licensees of nuclear power reactors to potential attacks from terrorists.

19. The pattern of 10 CFR Part 73 security breakdowns at WCGS coupled with the recent above-mentioned Information Notice and the apparent easy access to the cooling lake creates a situation which may be exploited by terrorists. The penetration of the WCGS site boundary represents a serious breakdown of perimeter security at the facility. Petitioner requests that the NRC investigate this matter and determine whether the provisions of 10 CFR Part 73 are adequately established and implemented by the licensee.

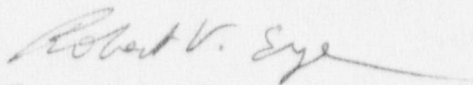
20. The penetration of the WCGS site boundary as above-described may indicate the inability of the licensee to control activities within the restricted or exclusion area as defined at 10 CFR Part 20.3(14) and/or 10 CFR Part 100.3(a) and as described in WCGS Technical Specifications at section 5.1.1, Figure 5.1-1 and section 5.1.3. Petitioner requests that the NRC investigate this issue and determine whether the licensee is able to maintain the integrity of its restricted and/or exclusionary zones.

21. The penetration of the WCGS site boundary and the presence of individuals on the shoreline or in the WCGS cooling lake may represent a condition that requires changes in the licensee's 10 CFR Part 50.47 and Appendix E emergency plans. Petitioner requests that the NRC investigate this issue and determine whether the licensee's emergency and evacuation plans include adequate provisions for notification and evacuation of all individuals present inside the site boundary including those along the shoreline or on the surface of the WCGS cooling lake.

22. WHEREFORE, Petitioner respectfully requests pursuant to 10 CFR Part 2.206 that an investigation by the NRC be commenced to determine whether the licensee authorized to operate the WCGS is in compliance with the regulations set forth at 10 CFR Part 73, 10 CFR Part 20.3(14), 10 CFR Part 100.3(a) and Technical Specifications 5.1.1 and 5.1.3, and 10 CFR Part 50.47 and Appendix E, and/or other regulations applicable to unauthorized penetration of the WCGS site perimeter.

23. WHEREFORE, if upon investigation and analysis the NRC determines that the licensee is in violation of any or all of the above-cited regulations and/or Technical Specifications and/or other applicable regulations or Technical Specifications that appropriate enforcement and corrective actions be commenced in order to assure that the licensee is operating the facility in a safe and lawful manner.

Respectfully submitted,



Robert V. Eye  
Counsel for NAN  
1347 1/2 Massachusetts  
Lawrence, Kansas 66044



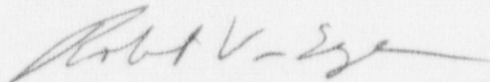
CERTIFICATE OF MAILING

I hereby certify that a true and correct copy of the above and foregoing was sent by U.S. mail return receipt requested on the 1<sup>st</sup> day of November, 1987 to the following:

Director, Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Director, Nuclear Materials and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555



Robert V. Eye  
Counsel for NRC  
1347 1/2 Massachusetts  
Lawrence, Kansas 66044

# Nuclear fishing?

## Anglers want big ones at Wolf Creek

By Rick Montgomery

staff writer

**B**urlington, Kan.—Oh, to fish on the lakeshore at the Wolf Creek Generating Station.

Anglers of eastern Kansas dream of this. Word has it that deep in the nuclear power plant's cooling lake are the really big ones. Millions of them. Batches of bass, caches of catfish, wall-to-wall walleye.

Stories are told of fishermen on midnight missions, how they sneak onto plant property, find a cozy spot in the sunflowers and cast out into the sky-blue waters of the nuclear age.

Atomic fishing, if you will.

But you can't.

As the Wolf Creek Nuclear Operating Corp. sees it, the 5,000-acre, man-made reservoir and the fish in it belong to the plant. State conservation officials would like to make a deal with the utility to open the lake 95 miles southwest of Kansas City to public fishing. Utility officials say they aren't opposed to the idea, but they're concerned about plant security and evacuation plans.

Scientists at the plant are studying the options. Little progress toward an agreement has been made in the last three years.

In that time, big fish stocked by the utility have only gotten bigger, feasting on little fish that otherwise would multiply and gum up the works of the plant's cooling system.

"It's your basic predator-prey relationship," said Mike Theurer, fisheries division chief for the Kansas Department of Wildlife and Parks. "The top predator isn't allowed out there, and that's man."

"The fishing? Oh yeah, it'd be cream."

The eating? Perfectly safe, researchers say.

Just as the coolant in a car radiator doesn't flush through the pistons, water from the reservoir never comes in contact with radioactive equipment. It's simply used to cool the steam that drives a turbine that turns an electric generator.

Then the water is returned to the lake, about 35 degrees warmer than it was when pumped into the plant.

The fish seem to like this range of temperatures.

"There's nothing special about the water that makes fish thrive, but there is a nice gradient of temperatures," said Rich Monzingo, senior biologist for Commonwealth Edison Co., an Illinois-based

utility that opened a public fishing park on one of its nuclear cooling ponds last year.

"They can move around in water that best suits them," Monzingo said. "In the winter, some may prefer the warmth of the water discharged from the plant. In the summer, they may go to the other end, near the intake screens."

The result can make a sportsman's stomach growl.

### Monsters of the deep

A 21-pound striped bass recently was pulled from the Wolf Creek lake by the plant's environmental research team, said Ronn Smith, nuclear information supervisor at Wolf Creek.

Before that, members of the Kansas chapter of the American Fisheries Society were invited to tour the plant and check out the methods used to catch and study fish. Their jaws dropped when they saw a net pulled from the lake, packed and squirming.

"Those of us familiar with what's down there were not surprised at all," Theurer said.

The utility stocked more than 6 million fish in the late 1970s and early 1980s to control the growth of smaller nuisance fish. In 1986 alone, researchers at Wolf Creek pulled out almost 3,000 pounds of fish samples. Often the scientists rely on an electric charge to stun the fish, causing them to float to the surface.

A couple of whoppers have even been mounted in the offices of the plant's environmental staff.

State conservation officials fear the lake is becoming overpopulated with each passing day.

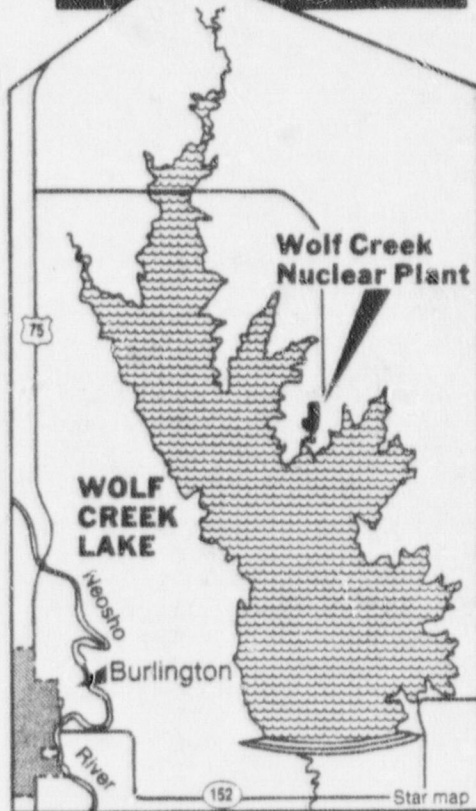
"You're eventually going to have diminishing numbers and increasing weight," Theurer said. "They're going to eat themselves out of house and home."

But Wolf Creek officials aren't yet ready to turn their lake into a fishing hole.

Signs saying "Private Property-No Trespassing" are posted around the area, but all it takes to get to the lake is determination and perhaps a pair of boots. Many areas are protected only by weeds or a short barbed-wire fence.

Bob Rainbolt, owner of Rainbolt & Son Bait Shop in Burlington, said: "Honest people are the only ones around here who haven't gotten fish out of that lake."

"The fishermen sneak in there at night. With a full moon, you don't need a lantern . . . Everyone I've talked to say



there's something wrong if you can't get some nice catches out there. I say you open 'er up."

The plant has security guards on a 24-hour basis, but keeping a close eye on a lake that spreads for miles has proved difficult. Coffey County Attorney Steve Boyce said he has never been presented a case of criminal trespassing on the lakeshore, which could result in a one-year sentence.

Wolf Creek spokesman Smith said a plant committee is studying the public fishing option "more seriously now than in the past . . . But questions are still out there."

What if a nuclear emergency occurred, for example? Could the plant alert a lake full of anglers in 15 minutes—fast enough to satisfy the Nuclear Regulatory Commission?

And what about the gizzard shad?

That's a nuisance fish, capable of bunching up in large numbers and clogging the intake screens through which 530,000 gallons of cooling water are



pumped every minute.

"They can literally shut the plant down," Smith said.

The larger fish eat the gizzard shad. In that context, utility officials say, a largemouth bass or a black bullhead can be regarded as maintenance equipment. "They do a good job for us," Smith said. "They're not even on the payroll."

Which leads utility officials to pose this argument: We wouldn't consider letting everybody fool around with, say, our reactor cavity seal rings. Why must we give them access to our fish?

## Sirens on the water

But some of the biggest fish in Illinois have been pulled from public ponds at Commonwealth Edison's power plants, including one nuclear facility.

"Let's face it. It's good P.R.," said Commonwealth Edison spokesman Debbie Vestal. "The community helped us build these plants, so why not give back something?"

At the company's LaSalle Nuclear Generating Station southwest of Chicago, a 2,000-acre cooling lake was opened last year as part of a public park. The utility installed sirens around the lake to comply with NRC warning regulations and has leased it to the state at \$1 per year.

"Before that, we were finding holes cut into our fences by fisherman sneaking in," Monzingo said. "The existence of fish in the lake was creating a security problem. We had no way of knowing when people were on our property. Now, the fishermen sign in and are kept in check."

The Kansas City Power & Light Co. and Kansas Gas and Electric Co., principal owners of the Wolf Creek plant, allow fishing at all their coal-fired plants where cooling lakes are large enough.

That includes their conventional plant near La Cygne, where the Kansas Department of Wildlife and Parks and Linn County operate a park. One fisherman has boasted to a reporter that the fish there "are probably the fightingest fish I've ever caught."

But then, that's not atomic fishing.

The word "atomic" changes the game, KCP&L officials said last week. NRC rules apply: Wolf Creek must submit a plan that would allow everybody inside a 10-mile radius to be notified of a mishap within 15 minutes, fishermen included.

"A lot of people working here want to fish, too," said Wolf Creek spokesman Smith, and rumors are afloat that the utility may combat the growing fish population by opening the lake to employees only. He doubts that will happen.

"A fishing lake for executives?" he



Dan Haines, an environmental biologist, weighs a bass from the cooling lake at the Wolf Creek nuclear power plant. Many of more than 6 million fish stocked in the lake in the late 1970s and early 1980s have grown large under good conditions, but fishing is prohibited. A committee is studying the possibility of public fishing. (special to the Star)

said. "That just wouldn't look good... Wolf Creek operates in a public forum."

In the meantime, area fishermen—ratepayers with tackle and appetites—wait for a decision. And Wolf Creek's

aquatic critters will battle it out among themselves, waging a Hungriest-and-Meanest-Fish-Wins contest.

Oh, to catch the winner.



20/0.9, no.3

NUREG-0090  
Vol. 9, No. 3

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# Report to Congress on Abnormal Occurrences

July-September 1986

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**U.S. Nuclear Regulatory  
Commission**

Office for Analysis and Evaluation of Operational Data



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maintenance performed on it in January 1986. It is not certain if the poor connection was the result of this previous maintenance activity.

- i. Difficulty was encountered during the event in resetting the main steam isolation bypass valves. The problem could not be recreated during investigation. The associated Monthly Surveillance Test was performed successfully.

Following the above, the plant was restarted. After reaching 20% power on July 11, 1986, the licensee satisfactorily reperformed the Loss of Control Room Functional Test. Subsequently, the plant reached 100% power and on August 19, 1986, the licensee declared the plant to be in commercial operation.

NRC - The NRC monitored the licensee's corrective actions to assure that they were responsive and satisfactory before permitting the plant to restart.

On November 12, 1986, the NRC forwarded to the licensee a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$50,000 (Ref. 7). The first violation pertained to a significant failure in the licensee's design control program. The second violation pertained to the licensee's failure to establish adequate procedures for the Loss of Control Room Test.

The NRC AIT's report was issued on July 25, 1986 (Ref. 8).

This incident is considered closed for the purposes of this report.

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#### 86-17 Significant Safeguards Deficiencies at Wolf Creek and Fort St. Vrain

The following information pertaining to this event is also being reported concurrently in the Federal Register. Appendix A (see Example 8 of "For All Licensees") of this report notes that any substantial breakdown of physical security, such as access control, that significantly weakened the protection against theft, diversion, or sabotage, can be considered an abnormal occurrence.

Date and Place - On July 7, 1986, NRC Region IV issued enforcement letters containing Severity Level II violations to the licensees of two nuclear power plant stations for serious deficiencies in plant physical barriers. The licensees are: (1) Kansas Gas and Electric Company (KG&E), operator of the Wolf Creek Generating Station, a Westinghouse-designed pressurized water reactor located in Coffey County, Kansas; and (2) Public Service Company of Colorado (PSC), operator of Fort St. Vrain, a General Atomic Corporation-designed high-temperature, gas-cooled reactor located in Weld County, Colorado.

Nature and Probable Consequences - The July 7, 1986 letters identified serious failures of the licensees to comply with NRC regulatory requirements pertaining to physical barriers. In the most serious example, it was determined at the Wolf Creek Generating Station that multiple uncontrolled access paths existed from the Owner Controlled Area (OCA) into the Protected Area (PA) and in two instances into Vital Areas (VAs). This condition was identified by the licensee as part of a quality assurance surveillance followup and confirmed by a Region IV safeguards specialist during reactive inspection No. 50-482/85-44 (Ref. 9). At the Fort St. Vrain Nuclear Station, NRC inspectors identified

Trends and Patterns Analysis of the Operational Experience  
of  
Newly Licensed United States Nuclear Power Reactors

August 1986

Program Technology Branch  
Office for Analysis and Evaluation  
of Operational Data

Principal Investigator:  
Thomas R. Wolf

NOTE: This report documents the results of a study by the Office for Analysis and Evaluation of Operational Data. The findings and recommendations do not necessarily represent the position or requirements of either the responsible program office or the Nuclear Regulatory Commission.



during routine inspection No. 50-267/85-32 (Ref. 10) two uncontrolled access paths from the OCA to the PA and VA. In this situation, each access had a barrier installed, but each was evaluated to be inadequate and not capable of preventing an intruder from defeating it easily.

In these examples, conditions existed whereby an intruder could have obtained unauthorized and undetected access into protected and/or vital areas from the OCA. It appeared from the inspections and review of licensee records that the conditions had existed at both plants for a minimum of six to seven months.

Cause or Causes - The cause of these occurrences was a failure in management control, including design oversight during the system planning stages, construction deficiencies, and the failure of the startup testing/surveillance program to identify these deficiencies. Another related cause at the Wolf Creek Generating Station was the failure of management to provide coordination among the various organizational entities which may affect facility security.

#### Actions Taken to Prevent Recurrence

Licensees - In each case identified, the licensee took immediate corrective action to post compensatory guards and install appropriate barriers. At Fort St. Vrain Nuclear Station, the affected piping was secured with adequate barriers and a routine surveillance was initiated to ensure that no degradation to these and similar barriers had occurred. The Wolf Creek Generating Station installed acceptable barriers where required and initiated a complete walkdown of the PA and VA to identify all possible points of vulnerability. This work is being conducted by a KG&E Security Passive Barrier Task Force that was formed to review all penetrations in passive barriers to assure that no further problems exist.

Both licensees have modified engineering/design change procedures to ensure that security system requirements are considered as part of any overall plant changes that could impact the safeguards program/systems.

NRC - On the date that the Wolf Creek Generating Station identified this condition, NRC Region IV initiated calls to all the Region IV licensees and to the other NRC Regional Offices to alert them to the possible generic implications of this finding.

On July 7, 1986, Region IV issued enforcement letters to the licensees involved as follows:

- a. A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$40,000 to KG&E (Ref. 11). The violation was categorized as Severity Level II (on a scale where Severity Levels I and V are considered the most significant and least significant severity levels).
- b. A Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$65,000 to PSC (Ref. 12). The Civil Penalty consisted of \$40,000 for the Severity Level II violation and \$25,000 for other less significant violations.

Enforcement conferences were held at the Region IV office on November 20, 1985, with KG&E and January 6, 1986, with PSC to discuss these issues and the