

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
KANSAS GAS AND ELECTRIC COMPANY, ) Docket No. 50-482 OL  
ET AL. )  
 )  
(Wolf Creek Generating Station, )  
Unit No. 1) )

AFFIDAVIT OF WILLIAM J. RUDOLPH II  
AND OWEN L. THERO

City of Washington )  
 ) ss.  
District of Columbia )

WILLIAM J. RUDOLPH II and OWEN L. THERO, being duly sworn according to law, depose and say as follows:

1. I, William J. Rudolph II, am employed by Kansas Gas and Electric Company (KG&E) as Manager Quality Assurance, Wolf Creek Generating Station. My business address is Box 309, Burlington, Kansas 66839. As Manager Quality Assurance, my responsibilities on the Wolf Creek project include verifying

that an adequate Quality Assurance (QA) program is developed and implemented through the administration of a comprehensive system of audits, surveillances and reviews. A summary of my professional qualifications and experience is attached hereto as Exhibit A.

2. I, Owen L. Thero, am a QA management consultant retained by KG&E at the Wolf Creek Generating Station. My assignment in the KG&E Quality Assurance organization at Wolf Creek is to provide support to the QA Manager in developing methods and procedures, personnel training, special audits and surveillances, and verification of corrective actions. My current business address is Box 309, Burlington, Kansas. A summary of my professional qualifications and experience is attached hereto as Exhibit B.

3. We make this Affidavit in support of Applicants' Response to the Petition for Leave to Intervene and Request for Hearing filed with the NRC Atomic Safety and Licensing Board by Nuclear Awareness Network (NAN). We have personal knowledge of the matters stated herein and believe them to be true and correct.

#### The Evaluation Process and Generic Conclusions

4. Upon receipt by KG&E of the NAN Petition on Saturday, January 21, 1984, we were assigned the responsibility to evaluate the statements in the petition attributed to former Wolf Creek construction workers and which, according to the

petition, "evidence a systematic breakdown between construction site practices and quality assurance/quality control." NRC regulations, at Appendix B to 10 C.F.R. Part 50, impose the QA program requirements for construction of Wolf Creek directly on KG&E as the lead construction permit holder. Consequently, our evaluation was motivated not only by our own strongly held commitment to the quality construction of a safe plant and a desire to uncover quickly any previously unknown deficiencies which could adversely affect the project at this critical stage of its scheduled completion, but also out of adherence to our regulatory responsibilities under the construction permit.

5. While we recognized some of the matters raised in the NAN Petition as the subjects of earlier and/or current evaluation by KG&E, Daniel and/or the NRC Staff, we could not be absolutely certain, due to the general nature of the statements made in the Petition, that we had properly associated the allegations there with the other matters under evaluation. In addition, there were statements made in the NAN Petition which we could not readily associate with project documentation to ascertain whether or not they had already been considered. For these reasons, and in order to learn first-hand and promptly about any quality concerns with the Wolf Creek project, we attempted to interview the six workers identified in the NAN Petition.

6. We have had at least two meetings with each of the six workers -- an initial interview, and a second meeting to

review documentation of the interview as well as, in some cases, to review plant documentation and/or to inspect the Wolf Creek plant. Mr. Rudolph had a third meeting with Mr. Larrick. Both of us attended each of the first two meetings with the workers and in each instance we were the only Applicants' personnel involved. We identified ourselves as KG&E QA personnel and explained to each worker that we were investigating the statements in the NAN Petition and any quality concerns they have with the Wolf Creek plant. Each worker was willing to discuss the issues with us. As will be illustrated in the following evaluation of the NAN Petition, the written Statements signed by the workers are a true and accurate description of the information the workers provided to us, at the interviews, on the statements attributed to them in the NAN Petition.

7. Each of the individuals identified in the NAN Petition is a former employee of Daniel International Corporation, Applicants' constructor for the Wolf Creek plant. Approximately 4,500 construction workers are employed at the Wolf Creek site. The six craft personnel identified in the NAN Petition are sheet metal craftsmen who worked on Heating, Ventilation and Air Conditioning (HVAC) systems at the plant. Each worker indicated to us that his first-hand knowledge of quality problems at Wolf Creek is limited to HVAC systems. Each worker also stated that he was contacted by Mary M. Stephens, Director of NAN, and was asked to discuss with her his knowledge about cost overruns at Wolf Creek. None of the six workers

identified in the NAN Petition initiated communication with Ms. Stephens or NAN, and none knew how she had identified them.

8. Since the focus of the statements attributed to the workers is on HVAC systems, it is relevant to note that as a result of documentation and procedural problems associated with the installation of safety-related HVAC hangers, a complete evaluation of all safety-related hangers/supports in the HVAC system was completed on January 20, 1983, with 100% reinspection and any required rework on hanger welds. To prevent a recurrence of these deficiencies, the inspectors were given additional training and then were requalified for weld inspection for the installation and inspection of HVAC duct supports. The applicable procedures for welding and inspection of HVAC supports were revised to clearly define the welding requirements and the inspection criteria for installation of HVAC supports. All inspection and craft personnel involved with HVAC system construction were re-trained to the revised requirements. These actions were completed on April 16, 1982. In addition, a comprehensive 18-point program of enhancement activities was initiated in 1981 to augment the specific corrective actions undertaken. Consequently, quality concerns related to the HVAC system have not gone unnoticed, are not new to the project staff or to the NRC, and have been addressed in a complete and conservative fashion.

Sam Goucher

9. Sam Goucher worked at Wolf Creek from June, 1980, to August, 1982. The NAN Petition states that:

Mr. Goucher was involved in rework in the diesel generator building and frequently saw QC travelers altered and postdated. Mr. Goucher discovered travelers and weld control documentation on safety related work that had been falsified. Mr. Goucher would testify that he discovered thirty to forty welds in the diesel generator building with no documentation. Ultimately, new documents were made and he witnessed a quality control official forced by supervisors to sign off on the paperwork.

10. These statements all related to a single quality concern that he had discussed with two NRC investigators at least two years ago. Mr. Goucher indicated to us that the nature of falsification of weld control documents he is aware of is back-dating and signing of the documents. He also stated that this concern involved original welds in the east diesel generator building.

11. In our second meeting with Mr. Goucher, we showed him the single suspect traveler which now contains Nonconformance Reports originated in 1983 which had been prepared to correct the weld control documentation and to initiate a reinspection program. Mr. Goucher indicated that he was satisfied with the corrective actions taken to date.

Kenny Rowell

12. Kenny Rowell worked at Wolf Creek from February, 1981, to October, 1983. The NAN Petition states that:

Mr. Rowell has given statements to the undersigned indicating that he was constantly ordered by a foreman to do safety related welds "out of procedure." Mr. Rowell was instructed by his foreman that he was never to question his instructions whether they were consistent with procedure or not. Mr. Rowell was informed that he would be fired if he failed to follow the instructions of his foreman regardless of the prescribed procedure. Mr. Rowell has stated that he witnessed welders ordered to make welds for which they were not certified.

13. Mr. Rowell confirmed, during the interview, that the statements attributed to him in the NAN Petition identify the same concerns he reported to KG&E QA and NRC Inspection and Enforcement (IE) personnel in October, 1983, and that are the subject of IE Report 83-25 (November 22, 1983). See Exhibit J.

14. One of the IE findings from that investigation is that the weld procedure used for repair of mislocated holes in Piece A of HVAC Hanger 2070 had not been qualified for plug welding with the omission of backing material, as apparently required by the applicable Bechtel (architect/engineer for Wolf Creek) specification. The failure to establish a new procedure by qualification was found by IE personnel to be a Severity Level V Violation. Exhibit J. (This involved the qualification of the procedure, not the welders). Corrective steps undertaken in response to the violation include the issuance of a

Nonconformance Report to evaluate the acceptability of the affected material and additional instruction to welding personnel. See Exhibit K. Additionally, Mr. Rowell told us he was not concerned about unqualified welders performing welds that they were not certified to perform. Rather, he questioned a single welder's qualification to perform one process (butt weld, 10 gauge material). (We have since confirmed that the welder in question was certified to perform that process.) We showed the documentation (Exhibit K) of KG&E's response to Mr. Rowell during our second meeting, which included an inspection at Wolf Creek, and he found it to be satisfactory.

15. With respect to the statements in the NAN Petition on the instructions of Mr. Rowell's foreman, IE Report 83-25 indicates that this concern was known by the NRC. KG&E QA has completed its evaluation of these and other worker allegations and concluded that personal relationships between the workers and their foremen were the root problem. We informed Mr. Rowell that the foremen in question were no longer employed at Wolf Creek, and Mr. Rowell indicated that his concerns were satisfied.

Earnest Larrick

16. Earnest Larrick worked at Wolf Creek from January, 1980, to December, 1981. The NAN Petition states that:

Mr. Larrick heard a Daniels' Foreman tell a co-worker not to tell quality control about any mistakes he discovered.

In our interview meeting, Mr. Larrick stated that he did not hear a Daniel foreman tell a co-worker not to tell quality control about any mistakes discovered, and that Mr. Larrick did not so state to Ms. Stephens. Rather, Mr. Larrick told us that he was told of such a conversation by another person in early 1981. Mr. Larrick has no first-hand knowledge of a Daniel foreman interfering with the QA program.

17. The NAN Petition states:

Mr. Larrick stated to the undersigned that he worked on safety related jobs that involved tightening bolts with load indication washers. Repeatedly the bolts broke before they were tightened down to the desired strength and were subject to an engineering correctional report (ECR). Mr. Larrick stated the workers were told to continue using these bolts and to "solve" the problem, the bumps on the washers were flattened with a hammer.

In the interview, Mr. Larrick indicated that he was never told to flatten or hammer load indicating washers, and that he never did so or saw an installed washer flattened, although his foreman implied that he do so. Mr. Larrick stated that while he was still working at Wolf Creek he was aware that Daniel Engineering was addressing the problem and that a change in the tightening process was coming down soon.

18. It is our conclusion that Mr. Larrick left the project before all corrective actions were implemented. At our second meeting, we showed Mr. Larrick the Daniel Deficiency Report which provides for reinspection of fasteners utilizing load indicating washers on HVAC supports, acceptance of those

which meet proper tensioning requirements, and replacement of rejected fasteners with assemblies appropriately tensioned to a different specification requirement. We also explained that subsequent to these DR actions and his departure from Wolf Creek, all load indicating washers used in HVAC systems had been removed and replaced with another method. Mr. Larrick found this corrective action to be adequate.

19. The NAN Petition states:

Mr. Larrick also stated it was common knowledge that supervisors at Wolf Creek painted regular bolts green so that they would pass as Q bolts.

In our first meeting, Mr. Larrick indicated that he had not stated that it was common knowledge that supervisors at Wolf Creek painted regular bolts green to pass them off as Q (safety-related) bolts. Rather, he stated that he had heard this from Tony Shores. As reflected in his written statement, however, Tony Shores told us that neither the conversation nor the alleged practice took place. There is no basis for this potential concern and the NAN Petition assertion that there was "common knowledge" of such a practice.

20. Mr. Larrick was not willing himself to document the information he provided to us at our several meetings. However, we carefully reviewed this information with Mr. Larrick, and he agreed that we had an accurate understanding. The statements above that we attribute to Mr. Larrick, then, are an accurate summary of the information he provided to us over several lengthy conversations.

Neil Campbell

21. Neil Campbell worked at Wolf Creek from June, 1980, to August, 1981. The NAN Petition states:

Mr. Campbell has stated to the undersigned that he was repeatedly ordered to stamp false D numbers on welds.

During the meetings with us, Mr. Campbell stated that he was not "repeatedly" ordered to stamp false D numbers on welds, and that he did not so state to Ms. Stephens. Rather, Mr. Campbell stated that this happened on one occasion, and was the subject of an NRC inspection in 1981.

22. This is the subject of Violation C in IE Report 81-12 of April 21, 1982. See Exhibit D. As a result of this problem, a Nonconformance Report was generated and dispositioned to provide 100% reinspection and any required rework of the supports in question. In addition, procedures were revised to include additional review of Nonconformance Report/Deficiency Report dispositions, and all involved personnel were indoctrinated in the requirements for such dispositions. These actions were completed by May 27, 1982. See Exhibit H at 4-5. The NRC closed out this violation in IE Report 83-06. Exhibit I.

23. The NAN Petition also states:

Mr. Campbell stated that he regularly saw his supervisor falsify and forge welders' names on auxiliary and control safety related travelers and weld documents.

Mr. Campbell told us that he did not state that he "regularly" saw his supervisor forge names on documents. Rather, Mr. Campbell stated that this occurred once in 1980 with respect to one traveler for the HVAC system in the control room. Mr. Campbell confirmed that this incident was the subject of an NRC investigation in 1981.

24. This alleged forgery of weld control records by a Daniel sheetmetal foreman is the subject of IE Report 81-10, April 21, 1982. The investigation involved 66 investigator/inspector hours in 1981 by two NRC investigators and two NRC inspectors. The investigation identified one Weld Control Record Supplement Sheet which contained nine Quality Control inspector signatures that were suspected to have been forged. FBI laboratory analysis confirmed that the signatures were forged, but the person responsible for the forgeries was not identified. See Exhibit C. The corrective action undertaken at Wolf Creek, in addition to the other HVAC activities we discussed above, was rework of the welds and preparation of a new traveler document package for the subject hangers. The corrective action was completed on April 16, 1982. Exhibit E. The NRC closed out the violation in IE Report 83-06. Exhibit I.

25. Mr. Campbell told us that he provided the NRC with all of his quality concerns on Wolf Creek in 1981 and that they all have been addressed. Mr. Campbell decided that a review of our documentation was not necessary. There is no question that, based on what Mr. Campbell told us in the two meetings,

the NAN Petition raises the same issues he raised in 1981 and which were thoroughly investigated by the NRC and KG&E QA. IE Reports 81-10 and 81-12 were logged into the local NRC Public Document Room in May, 1982. In addition, there were several newspaper stories on these investigations. See Exhibit L. Not only are these issues old, but they also have been substantively addressed with completed corrective actions.

Vince Ley

26. Vince Ley was employed at Wolf Creek from September, 1980 to December, 1983. The NAN Petition asserts that:

Mr. Ley stated that for a year and a half that he kept a handwritten list of safety related QC problems regarding welds which did not have documentation. In September of 1982 his list was given to Daniels' supervisors at Wolf Creek. The list was thrown in the trash.

Mr. Ley stated, at our meeting, that contrary to the NAN Petition he did not keep for a year and a half a handwritten list of safety-related QC problems regarding weld documentation. Rather, he stated that it was approximately a year and a half ago -- in June, 1982 -- that he prepared the list. Further, Mr. Ley told us he did not state to Ms. Stephens that the list had been thrown in the trash by Daniel supervisors, and that he did not know this to be the case. Afterwards, we obtained the original of Mr. Ley's list from DIC records and showed it to him at our second meeting. He confirmed that it was his list -- thereby disproving the story that it had been discarded.

27. We discussed Mr. Ley's list of documentation concerns and, at our second meeting, showed him reports relevant to his concerns. As a result of this information, as well as the corrective actions he knew were underway while he was at Wolf Creek, Mr. Ley indicated to us that the concerns on his list had been addressed to his satisfaction.

28. The NAN Petition states:

Mr. Ley stated that while he was employed at Wolf Creek the Nuclear Regulatory Commission distributed a letter to the workers encouraging them to speak up concerning any problems they might have relating to work procedures. Two of his co-workers reported specific concerns to the NRC. Subsequently one of the workers was threatened with great bodily harm by his foreman if he was to report any other problems to the NRC.

With respect to the co-worker who was threatened with bodily harm by a foreman, Mr. Ley confirmed that this concern was relayed to KG&E QA and the NRC in October, 1983, and is discussed in IE Report 83-25. Mr. Ley indicated that he was aware the foreman was terminated last year because of the incident and that he considered that to be appropriate corrective action.

29. The NAN Petition also states:

Mr. Ley also related incidents involving bolt holes in the wrong location. According to Mr. Ley's statement, the standard procedure was to weld over the hole, grind it off, and cut a new hole without reporting to quality control.

Mr. Ley confirmed that this is the same concern involving a single bolt hole that he relayed to KG&E QA and the NRC in October, 1983, and that is discussed in IE Report 83-25. See

Exhibit J. We advised Mr. Ley of the corrective actions that had been undertaken, and he indicated that they were satisfactory. See Exhibit K.

Tony Shores

30. Tony Shores worked at Wolf Creek from December, 1980, to December, 1982. The NAN Petition states:

Mr. Shores stated to the undersigned that he was repeatedly ordered to perform safety related work without quality control approval. Mr. Shores stated that he was told to remove and replace concrete anchor bolts without quality control inspection.

In our meeting, Mr. Shores stated that, contrary to the NAN Petition, he did not state that he "repeatedly" had been ordered to perform safety related work without quality control approval. Rather, he told Ms. Stephens that this happened once. The instance he related was removing and replacing concrete anchor bolts without quality control inspection. This occurred with expansion anchor bolts with one non-safety-related plenum at Auxiliary Building Elevation 2047 feet. Mr. Shores indicated that he provided this information to Daniel supervisors in July, 1982.

31. At our second meeting, we provided Mr. Shores with the investigation documentation listing the concerns he reported to Daniel. He stated that he was satisfied with the corrective action taken, which was detailed in the DIC corrective action letter discussing the round table meeting of July

8-9, 1982, and which Mr. Shores verified during his site inspection of January 28, 1984.

32. The NAN Petition also asserts:

Mr. Shores also stated that he handed Mr. Vince Ley's list of QC problems to his supervisors who threw the list in the trash.

Mr. Shores told us he did not tell Ms. Stephens that his supervisors threw Vince Ley's list of QC problems in the trash, and that he did not know that to be the case. At our second meeting, we showed Mr. Shores the original of Mr. Ley's list.

33. We told Mr. Shores that Mr. Larrick attributes to him a conversation about supervisors painting regular bolts green so they would pass as Q (safety-related) bolts. Mr. Shores indicated he did not recall saying it and that it is not true.

#### Conclusion

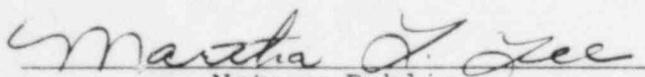
34. Our evaluation shows that the NAN Petition in many instances exaggerates or misrepresents what the workers told NAN. All of the concerns were limited to HVAC systems and to a great extent involve a few foremen for whom these sheetmetal workers worked. While some of the quality concerns raised proved to be valid, they had already been reported to, investigated and closed by KG&E QA, Daniel and/or the NRC. Other concerns had been addressed but the workers were not aware of the corrective actions taken, often because they were no longer employed at Wolf Creek.

35. Each of the workers indicated to us that their quality and safety concerns at Wolf Creek, identified in the NAN Petition, were resolved. No doubt has been created, as the NAN Petition asserts, as to the physical soundness of the Wolf Creek plant. Neither has there been evidence of any programmatic breakdown in quality assurance or quality control. Craft personnel themselves are part of the quality assurance program and they are expected to report nonconformances and deficiencies in a timely and definitive manner. In addition, the concerns raised here are limited to HVAC systems and to a few Daniel employees. We believe the corrective actions taken and in progress to resolve these isolated instances have been and are responsive and effective.

  
William J. Rudolph II

  
Owen L. Thero

Subscribed and sworn to before me  
this 3<sup>rd</sup> day of February, 1984.

  
Notary Public

My commission expires 10/14/85.

EXHIBITS TO ATTACHMENT 1

- Exhibit A: Statement of Qualifications, William J. Rudolph II
- Exhibit B: Statement of Qualifications, Owen L. Thero
- Exhibit C: NRC Region IV Office of Inspection and Enforcement Report No. 50-482/81-10, April 21, 1982.
- Exhibit D: NRC Region IV Office of Inspection and Enforcement Report No. 50-482/81-12, April 21, 1982.
- Exhibit E: KG&E letter (KMLNRC 82-201) to NRC Region IV (May 21, 1982) re Report No. 50-482/81-10.
- Exhibit F: KG&E letter (KMLNRC 82-202) to NRC Region IV (May 21, 1982) re Report No. 50-482/81-12.
- Exhibit G: NRC Region IV letter to KG&E (July 16, 1982) re Report No. 50-482/81-10.
- Exhibit H: NRC Region IV letter to KG&E (July 16, 1982) re Report No. 50-482/81-12.
- Exhibit I: NRC Region IV Report No. 50-482/83-06, April 12, 1983.
- Exhibit J: NRC Region IV Report No. 50-482/83-25, November 22, 1983.
- Exhibit K: KG&E letter (KMLNRC 83-166) to NRC Region IV (December 22, 1983) re Report No. 50-482/83-25.
- Exhibit L: Newspaper clippings on falsified/forged weld control documents.

WILLIAM J. RUDOLPH II

EDUCATION

1978 Senior Reactor Operator (SRO) Certification  
Sequoyah Nuclear Plant

1976 Master of Science in Nuclear Engineering  
Carnegie-Mellon University

1976 Postgraduate Study - Department of Radiological  
Health - University of Pittsburgh

1974 Master of Arts in Teaching - Physics  
University of Pittsburgh

1971 Bachelor of Arts in Physics and Mathematics  
Thiel College (with distinction)

EXPERIENCE

6/81 to Present Kansas Gas & Electric Company  
Wolf Creek Generating Station, Burlington, Kansas

Manager Quality Assurance (WCGS)

Responsible for verifying that an adequate QA program is developed and implemented at the WCGS through the administration of a comprehensive system of audits, surveillances and reviews.

See attached Job Summary for specific details.

Technical Consultant (6/81 to 6/83)

Provided engineering support services to various KG&E technical staffs at the WCGS. These services involved the following:

\* Manager Safety Engineering

Responsible for developing and implementing the company's Independent Safety Engineering Group (ISEG).

Provided technical overview in the areas of Power Plant Operations, Mechanical, Electrical, Nuclear and Radiological/Chemical Engineering.

EXPERIENCE (Con't)

\* Lead Auditor - QA/QC Activities

Responsible for independently organizing, directing, reporting and evaluating audits associated with Wolf Creek construction, startup, maintenance and operations activities. Is Lead Auditor certified in accordance with ANSI N45.2.23-1978 requirements.

\* NSRC Secretary

Assists the Chairman of the company's Nuclear Safety Review Committee (NSRC) in performing the duties and responsibilities associated with KG&E's nuclear safety overview committee. Is responsible for operating procedure preparation, recording meeting minutes and all other NSRC Secretary functions.

\* Special Assignments

INPO Construction Evaluation Project

Participated in two (2) INPO Self Initiated Construction Evaluation projects - Wolf Creek and Callaway (Union Electric). During these evaluations participated as a member of the Test Control group responsible for evaluating startup activities and as the Group Leader for the Quality Programs and Training group evaluation of the utility's and constructors quality assurance and training practices

Audit - Constructor Maintenance Practices

Upon request from the utility's Senior Vice President, organized and directed a special QA audit of the constructors maintenance program. Audit findings and recommendations for programatic changes were provided to utility executive management.

12/77 to  
6/81

General Physics Corporation

Manager - Consumers Nuclear Training Center

Mr. Rudolph was responsible for directing all activities associated with the procurement and operation of the Consumers Power Company Nuclear Training Center. These

EXPERIENCE (Con't)

responsibilities included directing the operational quality assurance and procurement of three (3) nuclear simulators, developing training materials and texts for each simulator, supervising all utility training and simulator operations and marketing simulator training programs to nuclear utilities throughout the United States.

His managerial responsibilities included establishing and maintaining technical, financial and scheduling control over contract work and project personnel.

Manager - PWR Simulator Training

Responsible for the overall development, preparation, delivery and supervision of the corporation's PWR simulator training programs which included: Management Familiarization, Licensed Operator Requalification Hot License Training and Certification, Cold License Training and Certification, Shift Technical Advisor Training, Mitigating Core Damage Training and Engineer Training.

Also responsible for the preparation and administration of written and oral pre-NRC licensing examinations and simulator marketing efforts to client utilities.

Certified at the Senior Reactor Operator (SRO) level on the Sequoyah Nuclear Plant (3411 MWth Westinghouse PWR).

PWR Simulator Instructor

Conducted technical and operational instruction of Reactor Operator (RO) and Senior Reactor Operator (SRO) candidates. Supervised control room operations of licensed operators and engineers during all phases of simulator training.

On-Site Training Coordinator

Responsible for developing and conducting the Reactor Operator and Senior Reactor Operator requalification programs for the Power Authority of the State of New

EXPERIENCE (Con't)

York (PASNY) INDIAN POINT UNIT #3 Nuclear Power Station. Developed lesson plans and materials as required by the utility and also conducted engineer and non-licensed operator training in plant systems and operations.

Inservice Inspection/Maintenance Engineer

Provided on-site technical assistance to nuclear utilities in the development and implementation of Inservice Inspection Programs structured to comply with the examination and testing requirements of 10CFR50.55a and the ASME Boiler and Pressure Vessel Code, Sections III and XI.

Has extensive involvement in the development of such programs for the following utilities:

- Brunswick, Unit #2 - Carolina P&L
- H.B. Robinson, Unit #2 - Carolina P&L
- Enrico Fermi, Unit #2 - Detroit Edison
- Oyster Creek, Unit #1 - Jersey Central

While at Oyster Creek, assisted utility personnel in the collection of base-line operational data and in the performance of maintenance on components and equipment associated with the Inservice Inspection Program.

5/76 to  
12/77

General Electric Co. - Knolls Atomic Power Lab

Mr. Rudolph was employed by the General Electric Company's Knolls Atomic Power Laboratory at the D1G Naval Reactor's Prototype in West Milton, New York.

Operations Engineer

Responsible for the overall conduct of power plant operations including nuclear and systems testing, maintenance, training and health physics for an operating shift.

EXPERIENCE (Con't)

Engineering Officer-of-the-Watch (EOOW)

Responsible for the operational control of the D1G nuclear reactor and steam plant. Routinely conducted reactor startups, shutdowns, high power operations and test and maintenance operations.

Completed the General Electric Nuclear Power Training School, the Kesselring Site Staff Instructors School and the Commanding Officers Chemistry and Radiological Controls School.

9/75 to  
5/76

Carnegie-Mellon University

Research and Teaching Assistant  
Department of Nuclear Science and Engineering

Mr. Rudolph conducted research activities concerned with analytically and experimentally determining the metallurgical problems associated with the materials considered for use in advanced reactor systems. He was also responsible for teaching a laboratory course concerned with the study of reactor kinetics and radiological controls

9/73 to  
9/75

Center Area School District

Physics, Chemistry and Mathematics Teacher

Mr. Rudolph was employed by the Center Area School District as a high school Physics, Chemistry and Mathematics teacher. His duties involved the preparation and presentation of lectures dealing with both theoretical and practical aspects of Physics. He developed problem sets, demonstrations, experiments and tests which were used to supplement formal lecture notes and gauge the progress of individual students.

## HONORS

Sigma Pi Sigma, National Physics Honor Society  
Thiel College Physics Fellowship  
Piroskia Kolossvary Memorial Physics Award

## PUBLICATIONS

Rudolph, W.J., "Material Problems in the Design of Magnetically Confined Plasma Fusion Reactors", Masters Thesis, Carnegie-Mellon University, May, 1976.

Rudolph, W.J. "Determination of a Criteria for the Selection of High School Physics Students", Masters Thesis, University of Pittsburgh, April, 1974.

## CERTIFICATIONS

Senior Reactor Operator (SRO)  
Sequoyah Nuclear Plant - 1978  
Quality Assurance Lead Auditor  
ANSI N45.2.23-1978 - 1982

## PROFESSIONAL AFFILIATIONS

American Nuclear Society  
Health Physics Society

KANSAS GAS AND ELECTRIC COMPANY  
JOB SUMMARYKP2-2  
Rev 3JOB TITLE: Manager QA (WCGS) DEPT/DIV Nuclear/Quality AssuranceGROUP: N/AORGANIZATIONAL RELATIONSHIPS:Position Reports To: Manager Quality AssurancePosition Directly Supervises: Assistant Manager Quality Assurance (WCGS)  
QA Audit, Surveillance & Systems Supervisors  
Consultants  
Steno-ClerksFUNCTION SUMMARY: Verifies that an adequate QA program is developed and implemented at the WCGS through administration of a comprehensive system of audits, surveillances, and reviews.PRIMARY DUTIES AND RESPONSIBILITIES INCLUDE:

1. Hires, evaluates and certifies on-site QA staff.
2. Implements QA audit, surveillance and review programs at WCGS.
3. Assigns and coordinates quality monitoring activities by overseeing Section Supervisors and Consultants to assure adequate coverage of ongoing and special activities.
4. Reports to the Manager Quality Assurance and Vice President - Nuclear on program effectiveness.
5. Interfaces with the Project Director to coordinate QA activities with other project activities.
6. Interfaces with the constructor and support organizations such as SNUPPS and Architect Engineers regarding matters which affect on-site activities.
7. Serves as primary contact with NRC Inspection and Enforcement personnel when on-site.
8. Provides for training programs conducted to enhance QA personnel knowledge.
9. Prepares and approves QA procedures for site use.
10. Reviews and approves requisitions initiated by the QA Division.
11. Performs other duties as assigned.

SCOPE DATA:

1. BS degree in engineering or related science is required.
2. Experience must include four years in the field of quality assurance or equivalent number of years of nuclear plant experience or combination of the two; at least one year shall be nuclear power plant quality assurance implementation experience.

REVIEWED: Earl W. Coel17/11/83  
dateAPPROVED: Henry Kauter17/11/83  
date

OWEN L. THERO

MANAGEMENT CONSULTANT

Twenty-seven (27) years in the Quality Control, Quality Assurance and related fields. Includes more than thirteen (13) years in management and management consultation among eighteen (18) years in aerospace and nine (9) years in the manufacturing and testing, installation and testing of nuclear power plant components and systems, two (2) years of operating BWR experience and four (4) years utility construction experience.

PROFESSIONAL EXPERIENCE:

1983 - Present

Thero Special Services, Inc. (TSS)

Contracted with Kansas Gas & Electric Company at the Wolf Creek Generating Station (1150 MW Power) as a QA Management consultant. Responsible for support of the QA Manager in developing methods and procedures, personnel training, special audits and surveillances, and verification of corrective actions.

1981 - 1983

TSS, Inc.

Contracted with Kansas Gas & Electric Company at the Wolf Creek Generating Station as the QA Surveillance Supervisor for the construction, startup and operation phases. Supervised nine (9) QA Engineers, developed and implemented the surveillance program to verify compliance to safety-related, ASME Code and special scope program requirements.

Implemented the post-turnover walkdown inspection program.

1980 - 1981

TSS, Inc.

Contracted with Iowa Electric Light and Power Company at the Duane Arnold Energy Center (560 MW Power) as the Acting Quality Control Assistant Supervisor. Supervised eleven (11) Quality Control Inspectors, including the refueling, maintenance and modification outage, developed the inspection program and personnel qualification and training

program (including VT, NDE and wiring and connection methods) for both inspectors and QC supervision.

1956 - 1980

General Electric

Eight (8) years as Manager Quality Assurance and Test, two (2) years as a Shop Operations Manager in the Industrial Housing area. The last six (6) years supported the Nuclear Power Industry in all aspects of Safety-Related/Code Quality and Test Systems including: design, manufacturing, qualification, internal audit program, supplier selection and source inspection, process control, inspection and test, configuration management, document control, and customer acceptance (buy-off).

Provided Field Service support in the utility construction/operational phases and internals and externals vibration testing QA program development programs at Duane Arnold Energy Center; Tokai, Japan; Caorso, Italy; and Kuosheng, Republic of China.

Quality Systems Development - planned, implemented and managed a Product Quality, Installation and Test Program for the "Pipe Test" Laboratory Facility. This was the "first time" implementation of a total Quality system during the initial heavy construction phase through turnover to the user. The project was highly successful in preventing defects, costly repairs, and systems contamination while meeting all schedules and program completion under budget.

Responsible for managing a work force of sixty-seven (67), consisting of: Quality Assurance and Control Engineers, Process Control Analysts, Quality Assurance Supervisor, Program Quality Assurance Specialist, Source Inspection Specialist, Test Supervisor, Lead Test Engineer, Inspectors, Software Engineers, Software Specialist, Lab Technicians, Test Specialists, Qualification Test Conductors, Teradyne Programmers, Configuration Control Analyst, and Document Control Supervisor.

Quality Control - Managed a factory unit consisting of seventy (70) people -- three (3) Quality Engineers, four (4) Supervisors, sixty-three (63) Inspectors. Responsible for development and operation of Quality systems. These systems encompassed vendor quality systems and auditing, lot sampling (involving 1,800 line items per week), qualification testing, nondestructive testing, shipping/receiving, environmental testing, mass properties, inprocess, final and field inspection.

Supervised field sites involving eight (8) Quality Technicians, one (1) Quality Engineer, and one (1) Specialist. Developed and instituted field quality plans for support of the receiving, assembly, modification, checkout and sell-off of complex electro-mechanical equipment. Designed and implemented a configuration control system for 200 complex electro-mechanical hardware items involving a computerized cross-country communications net. Assisted in developing the total configuration management system for the Division.

Field Service Representative - Involved in area of electro-mechanical equipment with in-house and field responsibilities for installation, checkouts, maintenance and repair of hydraulic lifts, air-bag suspension equipment cradles, electrical analyzing consoles, cranes, specialized truck and trailer movers. Also involved in contract administration, logistics, customer demonstrations, and contract and equipment accountability termination.



UNITED STATES

Exhibit C

NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 75011

Docket: STN 50-482/81-10

April 21, 1982

Kansas Gas and Electric Company  
ATTN: Mr. Glenn L. Koester  
Vice President - Nuclear  
P. O. Box 208  
Wichita, Kansas 67201

Gentlemen:

This refers to the investigation conducted by Messrs. J. D. Driskill and other members of our staff during the period May 5-6, May 11-14, June 17-18, and August 31, 1981, of activities authorized by NRC Construction Permit CPPR-147 for Wolf Creek, Unit 1.

Areas examined during the investigation and our findings are discussed in the enclosed investigation report. Within these areas, the investigation consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the investigators.

During this investigation, it was found that certain of your activities were not conducted in full compliance with NRC requirements. Consequently, you are required to respond to this matter, in writing, in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

April 21, 1982

Should you have any questions concerning this investigation, we will be pleased to discuss them with you.

Sincerely,



W. C. Seidle, Chief  
Reactor Project Branch 2

Enclosures:

1. Appendix A - Notice of Violation
2. Appendix B - NRC Investigation Report  
STN 50-482/81-10

APPENDIX A

NOTICE OF VIOLATION

Kansas Gas and Electric Company  
Wolf Creek, Unit 1

Docket No. STN 50-482

As a result of the investigation conducted at the Wolf Creek, Unit 1, site in Burlington, Kansas, on May 5-6, May 11-14, June 17-18, and August 31, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violation was identified:

Failure to Maintain Sufficient Records Relative to Installation of Safety-Related HVAC Hangers

10 CFR 50, Appendix B, Criterion X states, in part, "A program for inspection of activities affecting quality shall be established and executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity."

10 CFR 50, Appendix B, Criterion XVII states, in part, "Sufficient records shall be maintained to furnish evidence of activities affecting quality."

Contrary to the above, the record shown below was identified that did not furnish evidence of activities affecting quality in that it was, in part, a falsified document, and no QC inspection was conducted.

Weld Control Record Supplement Sheet No. H-10C, traveler for safety-related HVAC Hanger No. R3349, did not furnish evidence of activity affecting quality in that there was:

1. nonexistence of a valid traveler
2. no record of actual QC inspection of safety-related hanger No. R3349

This is a Severity Level IV violation. (Supplement II-D)

Pursuant to the provisions of 10 CFR 2.201, Kansas Gas and Electric Company is hereby required to submit to this office within 30 days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which will be taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation. Consideration may be given to extending your response time for good cause shown.

Dated: April 21, 1982

  
\_\_\_\_\_  
W. C. Seidle, Chief  
Reactor Project Branch 2

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Investigation Report No. 50-482/81-10

Docket No. 50-482

Licensee: Kansas Gas and Electric Company  
P. O. Box 208  
Wichita, Kansas 67201

Facility: Wolf Creek, Unit 1

Investigation at: Burlington, New Strawn, Coffey County, Kansas

Investigation Conducted: May 5-6; May 11-14; June 17-18 and August 31, 1981

Investigators: *D. D. Driskill* 9-21-81  
D. D. Driskill, Investigator Date  
Investigation and Enforcement Staff

*R. K. Herr* 9-21-81  
R. K. Herr, Senior Investigator Date  
Investigation and Enforcement Staff

Inspectors: *W. C. Crossman* 9/21/81  
W. C. Crossman, Chief Date  
Reactor Project Section 3

*J. E. Vandell* 9/21/81  
J. E. Vandell, Reactor Resident Inspector Date  
Wolf Creek

Reviewed by: *G. L. Madsen* 9/21/81  
G. L. Madsen, Chief Date  
Reactor Projects Branch

Approved by: *J. E. Gagliardo* 9/22/81  
J. E. Gagliardo, Director Date  
Investigation and Enforcement Staff

### Summary

Investigation on May 5-6; May 11-14; June 17-18 and August 31, 1981  
(Report No. 50-482/81-10).

Area Investigated: A Kansas City, Missouri television reporter referred an allegation, received from a confidential source, which contended that a Daniel International Corporation (DI) Sheet Metal General Foreman, at the Wolf Creek Project, had forged the signature of a DI Quality Control Inspector on Weld Control Records (WCR's) during December 1980. This investigation involved 66 investigator/inspector hours by two NRC investigators and two NRC inspectors.

Results: Investigation identified one Weld Control Record Supplement Sheet (WCRSS) which contained nine QC inspector signatures that were suspected to have been forged. Formal handwriting analysis of this document by the Federal Bureau of Investigation, Washington DC laboratory confirmed the nine signatures were forgeries; however, laboratory efforts to identify the culpable individual, responsible for the forgeries, was unproductive. Extensive efforts to identify personnel having knowledge concerning the forgeries were unproductive. The initial alleged was identified and interviewed. He stated he had observed the general foreman practice the QC inspector's signature on a blank sheet of paper, but stated he had not actually witnessed the signatures being forged on the WCRSS. The general foreman was interviewed and admitted having practiced the QC inspector's signature, but denied culpability and/or knowledge regarding the forgery of the WCRSS.

### INTRODUCTION

Wolf Creek, Unit 1 is under construction near the town of Burlington, Kansas. Kansas Gas and Electric Company (KG&E) is the construction permit holder. Bechtel Corporation (BC) is the architect engineer and Daniel International Corporation (DI) is constructing the plant.

### REASON FOR INVESTIGATION

In May 1981, Individual A, a Kansas City, Missouri television reporter, related receipt of an allegation, from a source who asked that his identity remain confidential, contending that a DI Sheet Metal General Foreman (Individual B) had forged the signature of a DI QC inspector (Individual C) on a "traveler" which documented the inspection of safety-related welding work.

### SUMMARY OF FACTS

On May 6, 1981, Individual A related receipt of an allegation, from an individual who had requested that his identity not be disclosed to NRC, that Individual B had forged the signature of Individual C on a "traveler" in December 1980, at which time work was being done on the Heating Ventilation Air Conditioning (HVAC) system in the Control Room at the Wolf Creek project.

Details1. Persons ContactedLicensee

G. L. Koester, Vice President, Nuclear  
G. Fouts, Site Project Manager  
G. Reeves, Quality Engineer

Other Persons Contacted

Individuals A through T

2. InvestigationAllegation No. 1

During December 1980, a DI Sheet Metal General Foreman forged the signature of a DI QC Inspector on a traveler, relating to the HVAC system in the Wolf Creek plant control room.

Investigative Findings

In May 1981, Individual A was interviewed and related an allegation, presented by an individual who asked that his identity not be disclosed to NRC, that Individual B had, in December 1980, forged the signature of Individual C on a traveler. According to Individual A, the source related having observed Individual B practice the signature of Individual C prior to the forgery of the traveler. Individual A stated the forgery was alleged to have occurred in the control room and was associated with paperwork related to "Series 3249 to Series 3350" (these documents were not further identified). Individual A also stated the source believed that the complete traveler document and possibly portions of other traveler documents had been forged by Individual B.

Preparation for Investigation

On May 7, 1981, telephonic contact was effected with KG&E Quality Assurance representatives regarding the allegation (of which they had previously been apprised by Individual A) and they were asked to obtain copies from DI files, of all travelers containing the signature of Individual C. KG&E was additionally asked to obtain the names of all DI personnel who worked for Individual B during the time period when the forgery allegedly occurred. The KG&E representatives advised that

Individual B had recently resigned from the Wolf Creek DI staff and that Individual C had resigned during the fall 1979.

#### Interview of KG&E Quality Engineer

On May 11, 1981, Mr. Glen Reeves, Quality Engineer, KG&E QA Department was interviewed regarding background information relating to the alleged forgery. Mr. Reeves stated that Individual B's sheet metal crew worked in the Wolf Creek control room (elevation 2047, Control Building) during November and December 1980 and January 1981, completing a rework of some HVAC hangers and duct work as well as accomplishing corrective action on some hangers found technically unacceptable. Mr. Reeves stated the major portion of the HVAC hanger installation was accomplished by Individual B's group during the summer and early fall of 1979.

#### Examination of Records

On May 11-12, 1981, a detailed examination of records containing the signatures of Individual C was conducted with the assistance of Mr. Glen Reeves, supra. The review disclosed that in approximately mid-1979 a DI form entitled "Weld Control Records (WCR)" was utilized to document data relating to the fabrication/welding and QC inspection of HVAC ducts and supports. Initially, fabrication/welding and QC inspection of each complete hanger was documented on one horizontal line; containing data relating to fit-up, weld procedure used, etc.; as well as the QC inspector's signature (indicating his inspection and approval of the complete hanger). Preparation of the form in this manner would facilitate the documentation of work in QC inspection for as many as eight separate hangers on one form. Mr. Reeves explained that in about September 1979 it was decided by DI QC management that the one line documentation format (described above) was inadequate and instructions were then promulgated to respective craft supervisors, responsible for personnel preparing the form, to utilize a Weld Control Records Supplement Sheet (WCRSS) or more than one, if necessary, for documentation of the data relating to each individual weld performed during the fabrication of a respective hanger. Therefore, the composition of a WCRSS would include a subtitle which would be the hanger number and each respective horizontal line would document data and QC inspection of each weld (W-1, W-2, etc.) on horizontal lines down the page.

(Investigator's Note: Other documents identified which are commonly referred to as "travelers" were excluded from this examination due to

various aspects of their use. The types of documents identified as being included under this title are Miscellaneous Structural Steel Weld Records, Engineering Special Instruction Sheets, and Engineering Change Requests.)

An extensive and detailed examination of all WCR's and WCRSS's containing the signature of Individual C was conducted in an effort to identify signatures which deviated from what appeared to be the usual signatures of Individual C. One WCRSS was found which contained nine signatures of Individual C, documenting both the fit-up, weld and QC inspection (performed by Individual C) of three hanger welds, which appeared to have been written by someone other than Individual C.

#### Interview of DI QC Supervisor

On May 11, 1981, Individual D, a DI QC Supervisor, was interviewed. Individual D stated the DI Weld Control Record form was initially used to document the fabrication/welding and inspection of each completed HVAC hanger. He stated the original format in which the form was used included a one line documentation of data and inspection for each completed hanger. Individual D stated that in about September 1979, the decision was made to document the fabrication and inspection of every weld on each individual hanger and that the WCRSS was utilized to accomplish this requirement. Individual D stated the information previously documented (in a one line format) was transcribed on the new form to comply with the new documentation requirement. Individual D stated that if the transcription was done by someone other than the person responsible for the original fabrication and inspection, the new form should indicate that fact and should also contain the initials of the person who performed the transcription.

Individual D stated that Individual C had been a very good mechanical welding QC inspector who had exhibited great care in his inspection duties and a high degree of confidence was developed in his inspection work. When queried concerning the alleged forgery by Individual B, Individual D was unable to provide any pertinent information.

On May 12, 1981, Individual E, a DI QC Supervisor was interviewed. Individual E stated that Individual C worked for him during the summer and fall, 1979 and had terminated his employment in mid-October 1979. Individual E stated that Individual C had worked primarily in the inspection of HVAC systems. Individual E stated Individual C was a "good worker" and that he (Individual E) would rehire him "in a

heartbeat." When questioned concerning the allegation that Individual B had forged Individual C's signature or possibly forged a complete WCR or WCRSS, Individual E stated it would have been impossible for him to have forged an entire WCR or WCRSS because these forms are originated by the DI Engineering Department, where the system number and sheet number are placed on the form. Individual E also stated that a blank WCR or WCRSS form would not be available for an individual to obtain for any purpose. Individual E hypothesized that if Individual B had committed a forgery it would not have involved a complete document due to this limited access of the WCR/WCRSS forms. Individual E stated the forgery, if it existed, would probably consist of one or more of the required QC inspection signatures which are required to be present on the form. As background information, Individual E stated that most of the HVAC work was completed in the control room during the summer and fall of 1979. Individual E stated that Individual B's sheet metal crews returned to the control room in November, December 1979 and January 1980 to rework some portions of the HVAC systems and to do some corrective action work.

#### Recontact with Individual A

On May 11, 1981, Individual A was telephonically contacted in an effort to obtain clarification of information from the original source. Individual A agreed to recontact the original source and attempt to clarify the following questions:

- a. What specific type traveler document was forged?
- b. What need or reason precipitated the forgery of the document?
- c. What is the significance of the alleged's original statement indicating the forgery was related to "Series 3249 to Series 3350?"

On May 12, 1981, Individual A telephonically reported having discussed the above questions with the source. Individual A stated the source had identified the document on which the forgery had occurred as a Weld Control Record Supplement Sheet. Individual A also related, regarding the "Series 3249 to Series 3350" comment that the numbers were hanger identification numbers and more specifically that the forgery was believed to have occurred on the WCRSS relating to hanger 3249, 3250, 3349, or 3350. Individual A stated the source was unable to identify the specific reason Individual B had committed the forgery, although it would naturally have to be assumed it would have been done to avoid the QC inspection of a particular hanger welds.

(Investigator's Note: As previous reported, a WCRSS was found on March 11, 1981, which contained nine signatures of Individual C which appeared to have been forged. Furthermore, the WCRSS on which the suspected forgery was found was a traveler relating to one of the hangers identified by Individual A's source above.)

#### Interview of Former Subordinates

On May 13, June 30, and July 1, 1981, Individuals F, G, H, I, J, K, L, M, N, and O, all former subordinates of Individual B, were interviewed concerning their knowledge of the alleged forgery. None of these individuals could provide any information pertinent to the investigation of the forgery.

#### Interview of Individual B

On June 18, 1981, Individual B was interviewed concerning his allegedly having forged the signature(s) of Individual C on a WCR/WCRSS in December 1980. Individual B recalled one occasion, in about December 1980, when he was sitting in the control room at a table containing numerous documents (including WCR's/WCRSS's) relating to HVAC work. He stated on this occasion he had written Individual C's signature on a blank legal pad several times. Individual B stated these actions occurred without deliberation and with no intention of committing any impropriety. Individual B stated several people had observed him do this (he could not identify them). Individual B stated he did not, at any time, place Individual C's signature on any formal documents.

#### Interview of Initial Source

On July 1, 1981, Individual P, the initial confidential source of Individual A, who provided the allegation concerning the forgery, was interviewed. Individual P stated that while working in the control room in December 1980, he observed Individual B filling in blocks on a WCRSS. Individual P stated he then watched Individual B practice the signature of Individual C on a piece of paper. Individual P stated this sequence of events made it obvious to him that Individual B intended to forge the signature of Individual C on the WCRSS which was being prepared. Individual P stated, however, he had not actually observed Individual B place the signature of Individual C on the WCRSS. When questioned concerning his formally stated knowledge of the specifically identified documents, Individual P stated he had guessed; knowing which hangers were being worked on at about that time. Individual P stated he had no doubt that Individual B had placed Individual C's

signature on the traveler on that occasion.

#### FBI Laboratory Examination

On June 24, 1981, the original document containing the suspected forged signatures of Individual C and other original documents containing the known authentic signatures of Individual C were forwarded to the Federal Bureau of Investigation laboratory, Documents Section, Washington, DC for formal laboratory examination. Additionally, documents containing the known handwriting of Individual B were submitted to the FBI lab for analysis.

On July 28, 1981, a formal handwriting analysis of the document containing the suspected forged signatures of Individual C was conducted by the FBI laboratory, Documents Section. It was determined that the nine previously identified signatures of Individual C were forgeries. Laboratory efforts to identify the individual responsible for the forged signatures were unproductive, insomuch as a definite conclusion could not be reached regarding whether a specific writer was responsible for the preparation of the forged signatures due to their probability not being representative of that individual's normal handwriting.

#### Reinterview of Individual B

On August 13, 1981, Individual B was reinterviewed. During this interview, Individual B again denied culpability and/or knowledge regarding the forged signatures and refused to discuss the matter further without being provided the identity of the individual making the allegation. This interview of Individual B was terminated.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV

811 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 75011

Exhibit D

Docket: STN 50-482/81-12

April 21, 1982

Kansas Gas and Electric Company  
ATTN: Mr. Glenn L. Koester  
Vice President - Nuclear  
P. O. Box 208  
Wichita, Kansas 67201

Gentlemen:

This refers to the investigation conducted by Messrs. D. D. Driskill and other members of our staff during the period June 8-9, June 17-18, June 29-July 2, July 27-30 and August 13, 1981, of activities authorized by NRC Construction Permit CPPR-147 for Wolf Creek, Unit 1.

Areas examined during the investigation and our findings are discussed in the enclosed investigation report. Within these areas, the investigation consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the investigators.

During this investigation, it was found that certain of your activities were not conducted in full compliance with NRC requirements. Consequently, you are required to respond to this matter, in writing, in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

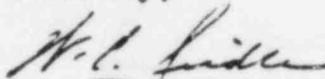
In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

April 21, 1982

Should you have any questions concerning this investigation, we will be pleased to discuss them with you.

Sincerely,



W. C. Seidle, Chief  
Reactor Project Branch 2

Enclosures:

1. Appendix A - Notice of Violation
2. Appendix B - NRC Investigation Report  
STN 50-482/81-12

APPENDIX A

NOTICE OF VIOLATION

Kansas Gas and Electric Company  
Wolf Creek, Unit 1

Docket No. STN 50-482

As a result of the investigation conducted at the Wolf Creek, Unit 1, site in Burlington, Kansas, on June 8-9, June 17-18, and June 29-July 2, July 27-30, and August 13, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

A. Failure to Follow Procedures Relative to the Installation of Safety-Related Duct Work and Supports

10 CFR 50, Appendix B, Criterion V states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."

Daniel International Corporation (DI) Work Procedure VIII-200, "Field Fabrication and Erection of Safety-Related Duct Work and Supports," issue date March 26, 1979, requires that safety-related Heating Ventilation and Air Conditioning (HVAC) hangers be erected in accordance with HVAC travelers and fabrication drawings. Additionally, it states that QC inspection of the HVAC hangers would be performed in accordance with the traveler and Quality Control Procedure VIII-200.

Contrary to the above:

1. Miscellaneous Structural Steel Weld Records (MSSWR) were used to document completion and QC inspection of attachment welds on HVAC hangers from June 25 to mid-August 1979, even though the Weld Control Record (WCR) form was issued on July 25, 1979, by DI Engineering Department for use as an HVAC traveler.
2. DI Quality Control Procedure VIII-200, Revision 0, entitled "Field Fabrication and Erection of Safety-Related Duct Work and Supports" was not issued until September 24, 1979, indicating that there was no written procedure for QC inspection from March 26, 1979, until September 24, 1979.

This is a Severity Level IV violation. (Supplement II-D)

B. Failure to Maintain Sufficient Records Relative to Installation of Safety-Related HVAC Hangers

10 CFR 50, Appendix B, Criterion XVII states, in part, "Sufficient records shall be maintained to furnish evidence of activities affecting quality."

Contrary to the above, records were identified that did not furnish evidence of activities affecting quality in that they were fallacious. Examples of fallacious records were:

1. Data was transferred from the MSSWR form (which documents only attachment welds) to the WCR form (which documents the fabrication/QC inspection of the complete hanger) using hanger blueprints to identify the welds on each hanger with no visual confirmation that the welds had been completed.
2. Data was subsequently transferred from the WCR form to form Weld Control Record Supplement Sheet (WCRSS) (which documents each individual weld on the respective hanger) with no valid record that the information on the WCR form correctly represented the fabrication and QC approval of a completed hanger.
3. Numerous conflicts were identified in the Control Room HAVC hangers where the welder identification numbers on hanger welds and the welder identification numbers on the associated WCR form and/or WCRSS form did not correspond.

This is a Severity Level IV violation. (Supplement II-D)

C. Failure to Establish Adequate Measures Relative to the Identification and Correction of Conditions Adverse to Quality

10 CFR 50, Appendix B, Criterion XVI states, in part, "Measures shall be established to assure that conditions adverse to quality, such as . . . deviations . . . and nonconformances are promptly identified and corrected."

DI Deficiency Report 1SD5455M, dispositioned on November 18, 1980, states, in part, "Incorrect entries on WCRs and/or incorrect 'D' stamping to be corrected under direction of craft supervision . . . ." The "Action Taken" portion of DR 1SD5455M states, "Craft has been retrained and welding discrepancies corrected to reflect correct 'D' stamps and weld numbers with corresponding traveler sheets."

Contrary to the above, welding discrepancies had not been corrected to reflect correct "D" stamps and weld numbers with corresponding traveler sheets in that a re-examination of certain supports, i.e., R3349 on June 25, 1981, and R3240 on August 20, 1981, revealed that the welder "D" numbers did not correspond with the traveler sheets.

This is a Severity Level IV violation. (Supplement II-D)

D. Failure to Establish Adequate Measures to Assure that Special Processes are Controlled and Accomplished by Qualified Personnel

10 CFR 50, Appendix B, Criterion IX states, in part, "Measures shall be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel . . . ."

Contrary to the above, valid welder identification numbers were changed in September and October of 1979 to agree with erroneous Weld Control Records thus eliminating their authenticity.

This is a Severity Level IV violation. (Supplement II-D)

Pursuant to the provisions of 10 CFR 2.201, Kansas Gas and Electric Company is hereby required to submit to this office within 30 days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which will be taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation. Consideration may be given to extending your response time for good cause shown.

Dated: April 21, 1982



\_\_\_\_\_  
W. C. Seidle, Chief  
Reactor Project Branch 2

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Investigation Report No. 50-482/81-12

Docket No. 50-482

Licensee: Kansas Gas & Electric Company  
P. O. Box 208  
Wichita, Kansas 67102

Facility: Wolf Creek, Unit 1

Investigation at: Burlington, New Strawn, Coffey County, Kansas

Investigation Conducted: June 8-9, June 17-18, June 29-July 2,  
July 27-30, and August 13, 1981

Investigators: *J. U. Driskill* 9-17-81  
J. U. Driskill, Investigator Date

*R. K. Herr* 9-21-81  
R. K. Herr, Senior Investigator Date

Inspector: *T. E. Vandell* 9/21/81  
T. E. Vandell, Reactor Resident Inspector Date

Reviewed by: *G. L. Madsen* 9/21/81  
G. L. Madsen, Chief Date  
Reactor Projects Branch

Approved by: *John T. Colliardi* 9/22/81  
J. E. Gagliardo, Director Date  
Investigation and Enforcement Staff

Summary

Investigation on June 8-9, June 17-18, June 29-July 2, July 27-30, and August 13, 1981 (Report No. 50-482/81-12).

Areas Investigated: Allegations were presented stating a Daniel International Corporation (DI) General Foreman, and a DI Quality Control (QC) Inspector had falsified numerous records relating to the Wolf Creek Project Heating Ventilation Air Conditioning (HVAC) System in October 1979; that the same

general foreman had ordered subordinates to remove welder identification numbers from welds on HVAC hangers and replace them with the welder identification number of another welder; that a DI QC Inspector had, in the summer 1980, signed off travelers documenting HVAC weld inspections in the Auxiliary Building which he had not conducted; and that Control Room HVAC ducts and hangers were damaged during installation but were approved by the QC Inspector.

#### Results:

Investigation disclosed that what was originally believed to have been a falsification of numerous records, in October 1979, was actually the transcription of data from an old form to a new form. Extensive investigation of the circumstances relating to this change in document format disclosed that the different basic purposes of the forms used to document the installation/QC inspection of Control Room HVAC hangers and the subsequent transcription, in October 1979, effectively discredited actual traceability for the hangers involved. Interviews regarding changing of welder identification numbers on HVAC hangers, confirmed that this did occur; however, no justification for these actions could be provided. Interviews and inspection efforts did not corroborate the allegation that HVAC hangers were signed off in the summer of 1980 by a QC inspector without the inspections being conducted. A review of DI QC records disclosed no information relating to major deficiencies in the Control Room HVAC system.

#### INTRODUCTION

Wolf Creek, Unit 1 is under construction near the town of Burlington, Kansas. Kansas Gas & Electric Company (KG&E) is the construction permit holder. Bechtel Corporation (BC) is the architect engineer and Daniel International Corporation is constructing the plant.

#### REASON FOR INVESTIGATION

On May 28, 1981, a concerned citizen telephonically contacted NRC Region IV and related personal knowledge of "shoddy welding" in the HVAC system and that numerous HVAC travelers had been falsified by a construction foreman and a QC inspector.

#### SUMMARY OF FACTS

Subsequent to the May 28, 1981, telephonic interview of Individual A, he was personally interviewed on June 8, 1981, and made the following allegations:

1. A DI General Foreman and a Foreman spent several days, in about October 1979, preparing numerous Weld Control Records (WCR's) and a DI QC Inspector signed off those WCR's as having been inspected, when he, in fact, did not leave the office.
2. A DI General Foreman ordered several of his subordinates to stamp a welder identification number on numerous HVAC hanger welds which had no welder identification number on them. Subordinates were also ordered to efface many welder identification numbers, and replace them with another number.
3. During the summer of 1980, a DI General Foreman and a Foreman had a DI QC Inspector sign off inspections for about 14 HVAC hangers, located in the Auxiliary Building, which had not actually been inspected.
4. HVAC ducts and hangers, located in the Control Room, were damaged during installation and not repaired. Also much of the welding done in this area was deficient, but was approved by QC inspectors.

DETAILS

1. Persons Contacted

Licensees

- \*W. Cadman, President, KG&E
- o\*G. L. Koester, Vice President, Nuclear, KG&E
- \*B. Ruddick, Vice President, Engineering, KG&E
- \*B. Rives, Vice President, Systems Services, KG&E
- \*R. Foster, Vice President, General Counsel, KG&E
- o\*E. W. Creel, Manager, Quality Assurance, KG&E
- o\*D. Crawford, Manager, Nuclear Department, KCP&L
- \*L. Koeper, Manager, Information Services, KG&E
- \*T. D. Keenan, Director, Nuclear Operations, KG&E
- o\*G. L. Fouts, Construction Manager, KG&E
- \*D. W. Prigel, Manager, Site QA, KG&E
- \*G. W. Reeves, Assistant Manager, Site QA, KG&E
- \*V. Palermo, Assistant Construction Manager, KCP&L
- \*N. Hoadley, Engineer, Nuclear Plant Engineering, KG&E
- \*R. Terrill, QA Committee, KG&E
- \*C. E. Parry, QA Auditor, KG&E

Daniel International Corporation

- oH. W. McCall, President, Power Group
- \*R. P. Williams, Group Vice President
- o\*P. S. Van Nort, Vice President, Quality and Technical Services

Other Persons Contacted

Individuals A through K

- \*Attended August 21, 1981 exit interview.
- oAttended September 3, 1981 Management Meeting.

2. Investigation of Allegations

Allegation No. 1

A DI General Foreman and a Foreman spent several days, in about October 1979, preparing numerous Weld Control Records (WCR's) and a DI QC Inspector signed off those WCR's as having been inspected, when he, in fact, did not leave the office.

Investigative Findings

On June 8, 1981, Individual A was interviewed regarding his concerns relating the HVAC System in the Control Room at Wolf Creek. Individual A stated that during the summer and fall of 1979 Individual B's sheet

metal crew installed numerous HVAC hangers in the Control Room. Individual A stated that he was personally aware that during much of this time the appropriate Weld Control Record (WCR) documents (travelers) were not being prepared as the work was being accomplished. Individual A stated that the installation of the hangers was done in a very disorderly manner. Individual A stated that during the fall of 1979 Individual C told everyone that he had a new job and would be terminating his DI employment in a few days. Individual A stated that about that same time Individual B and Individual D began preparing numerous WCR documents for HVAC work which had already been done in the Control Room in order that Individual C could sign off the required QC inspections on these forms. Individual A stated that these three persons spent several days preparing these documents. Individual A stated that he knew that numerous WCR's were falsified in this manner, insomuch as a number of the welds and hangers documented had not yet been done and/or completed.

#### Previous Review of HVAC Documentation

During May 1981, an allegation was presented to NRC indicating Individual B had, during December 1980, forged the signature of Individual C on a Wolf Creek Control Room HVAC traveler. Investigation of the allegation (reported in NRC Region IV Investigation Report No. 50-492/81-10) resulted in a complete review of HVAC documentation for the Control Room being conducted on May 11-12, 1981. This examination of documents and interviews of personnel disclosed that when the Control Room HVAC system installation was initiated, during the late spring of 1979, the only traveler-type document used to record installation and QC inspection of these hangers was the Miscellaneous Structural Steel Weld Record (MSSWR) (Attachment 1) which documents only the safety-related attachment welds for the hangers. (Investigator's Note: Miscellaneous Structural Steel Welds Records were used as traveler documents for safety-related HVAC support fabrication and attachment welds contrary to Daniel International Work Procedure VIII-200, Revision 0, dated March 26, 1979.)

Review of these documents disclosed that an approved traveler document, the Weld Control Record (WCR) (Attachment 2) was first used to document the fabrication and QC inspection of HVAC hangers. Each line of this document was used to document the fabrication and QC inspection of each individual hanger. In October 1979, the Weld Control Records Supplement Sheet (WCRSS) (Attachment 3) was issued for use and augmented the WCR insomuch as it provided individual documentation and QC inspection records for each weld on each respective hanger. (Investigator's Note: With regard to the WCR and WCRSS documents reviewed, it was noted that all were very clean and exceptionally neat which generally would not be the case if the documents were prepared in the field.)

During the course of this document review, Individual E, the DI Lead QC Inspector for the Control Room during the 1979-1981 time frame, was interviewed. Individual E recalled that in the early stages of the installation of the HVAC hangers, in the spring of 1979, it was not designated as a safety-related system, therefore the MSSWR was used to document the attachment welds for individual hangers. Individual E stated it was then determined, in about July 1979, that the Control Room HVAC was a safety-related system and the WCR, and later the WCRSS, documents were designated as the appropriate travelers for this work. Individual E stated that when these new documents were introduced for use, data formally documented on the previously used documents was transcribed on to the newly designated documents in order that uniformity could be maintained in documentation.

(Investigator's Note: Any DI QC Department misunderstanding concerning the safety-related classification of the Control Room HVAC system, as indicated by Individual E above, is contrary to the Wolf Creek Project Preliminary Safety Analysis Report, which identifies the Control Room HVAC system as a seismic system, therefore any QC or DI management determination that this system was nonsafety-related, as stated by Individual E above, was incorrect.)

#### Interview of Individual B

On June 18, 1981, Individual B was interviewed. When queried concerning the allegation that he (Individual B) and Individual D had prepared numerous WCR's about October 1979, and that Individual C had signed them off, indicating the QC inspections were approved and completed, Individual B stated this was true. Individual B stated that when the document format was changed from MSSWR's to WCR's and later to WCRSS's, he had received instructions from his superior to transfer the formally documented data to the new form. Individual B stated that he and Individual D had sat at a table and prepared these documents using blueprints for each hanger to identify the number of welds on each and prepare the documents accordingly. He stated Individual C had assisted in the verification and transcription of data. Individual B stated that Individual C had signed off the required QC inspection portion of these documents subsequent to their preparation. Individual B stated he could understand how someone might have misunderstood what was happening at that time and believed the records were being falsified.

#### Additional Records Review

On June 29 and July 27-30, 1981, additional reviews of documentation concerning the Control Room HVAC system were conducted with the

assistance of Mr. G. Reeves, Assistant Site QA Manager, KG&E, and Mr. C. Parry, QA Auditor, KG&E. Based on information obtained from these record reviews, Mr. Reeves prepared a timetable of events which occurred during 1979 relating to the documentation of the fabrication and QC inspection of the HVAC hangers. The following significant points were illustrated by the timetable:

- a. March 26, 1979 - DI Work Procedure VIII-200 entitled "Field Fabrication and Erection of Safety-related Duct Work and Supports" was issued which required that safety-related HVAC hangers be erected in accordance with HVAC travelers, and fabrication drawings. The work procedure additionally states that QC inspection of the HVAC hangers would be performed in accordance with the traveler and Quality Control Procedure VIII-200.
- b. June 25 to mid-August, 1979 - MSSWR's used to document completion and QC inspection of attachment welds on HVAC hangers.
- c. On July 25, 1979 - WCR's first issued by DI Engineering Department for use as HVAC travelers.

(Investigator's Note: As noted in b., above, use of the MSSWR continued into mid-August despite the fact that the WCR's were designated as the correct traveler document.)

- d. September 24, 1979 - DI Quality Control Procedure VIII-200, Revision 0, entitled "Field Fabrication and Erection of Safety-Related Duct Work and Supports" was first issued.

(Investigator's Note: As noted in a., above, installation of safety-related HVAC hangers was to be done in accordance with this procedure, therefore the required procedural guidance for the QC inspection of these hangers did not exist until this date.)

- e. On October 4, 1979 - WCRSS's first issued.
- f. October 4 to October 18, 1979 - It was during this period that the transcription of data from MSSWR's to WCR's and to WCRSS's occurred.
- g. October 19, 1979 - Individual C terminated his employment at Wolf Creek.

It was recognized during these reviews that the transcription of data from incompatible records, the MSSWR (which documented only attachment welds) to the WCR (which documents the fabrication/QC inspection of a complete hanger) created a fallacious set of records (travelers). The subsequent transcription of erroneous data from WCR's to WCRSS's further conveyed the erroneous data to another document.

(Investigator's Note: The validity of transcribed data from WCR's to WCRSS's was further discredited by Individual B's admitted use of hanger blueprints to identify the number of welds on each hanger without having visually confirmed that the welds had been accomplished.)

#### Interview of DI QC Supervisors

On July 30, 1981, Individual E, a DI Mechanical Welding Quality Supervisor was interviewed. Individual E stated that in about the spring of 1979, the HVAC installation work was initiated in the Control Room. He stated that at this time the MSSWR form was used to document data relating to the installation of hangers and the related QC inspections. He stated that it was soon thereafter recognized that the MSSWR did not serve the purpose for which it was intended and the WCR form was initiated to document the installation and inspection of HVAC hangers, as it provided all necessary data and a better record of traceability. Individual E stated that at the time the WCR was issued for use a management decision was made to transfer all formally documented hanger installation data from the forms previously used (the MSSWR's) to the WCR in order to maintain uniformity in documentation. He stated these directions were transmitted to the craft supervisors to be effected. Individual E went on to state that a few months later it was determined that the WCR did not completely serve the purpose for which it was intended and the WCRSS was adopted for the use of documenting each individual weld on a respective hanger. He stated that again it was decided that the data formally documented on the WCR was to be transferred to the WCRSS. Individual E recalled that in the early fall of 1979, Individual B, Individual D, and Individual C were involved in the transcription of information on these documents and this transcription effort could have been misunderstood by a casual observer to be falsification of records. When it was pointed out to Individual E that this transcription effort could have resulted in the generation of fallacious records, Individual E agreed that due to the different types of forms being used and transcribed, inaccurate data could have resulted.

On July 29, 1981, Individual F, the DI Project Quality Inspection Manager at Wolf Creek was interviewed. Individual F stated that in about early 1979 HVAC installation work was initiated in the Control Building. He stated that at the time of the initiation of this work it was not treated as a completely safety-related application. He stated the only work that was documented and inspected by QC was the attachment welds for the HVAC hangers and that the MSSWR was utilized to document this work. Individual F stated that it was soon thereafter recognized that the Control Building HVAC hangers should be considered safety-related and that the MSSWR cards were inadequate for full documentation of the hanger installation. He stated in about May or June 1979, a program change was agreed upon, establishing the use of WCR's for documentation of the HVAC hanger installation. He stated a one line format was agreed upon, for use of the WCR, because it was believed that the hangers could be completed in a single work sequence, therefore, the QC inspection of the entire hanger could be documented by one signature. He stated that a short time thereafter, due to the fact that the hangers were not being completed in one work sequence, a WCRSS was initiated to document completion and inspection of the individual welds on each hanger. Individual F stated that when the above changes of documents occurred, direction was given to the craft supervisors to transcribe the information formally documented on the previous documentation format to the newer one. It was pointed out to Individual F that the transition of data from one document to another appears to have created numerous inaccuracies in the HVAC system travelers. He stated that this period of document transition could have caused the following:

- a. Transcribing information from the MSSWR to WCR could lend its misinterpretation regarding what work was actually completed.
  - (1) Inasmuch as the MSSWR represents inspection of attachment welds and the WCR represents inspection of an entire hanger, the WCR does not provide for referencing the additional welds and/or inspection on the hanger at a later time.
  - (2) If the data is transcribed from the MSSWR to the WCR without checking the hanger, the possibility exists that the WCR could represent a hanger being completed when, in fact, it was not.

(Investigator's Note: As previously reported, Individual B stated that at the time of the transcription of information from the MSSWR to the WCR and from the WCR to the WCRSS no reinspection of hangers was conducted. A review of hanger blueprints to determine the number of welds which existed on a hanger was conducted instead.)

- (3) The possibility also exists that, due to the backlog of paperwork to support production, the filling in of the blank WCR was delegated to an individual who was not knowledgeable regarding what the two forms represented.
- b. The next transition of information from the WCR and the WCRSS, which documents each weld on a hanger, is appropriate if the WCR correctly represents the fabrication and QC approval of a completed hanger. However, if the information on the WCR was incorrect, the errors were further misrepresented in the transcribing of the data to the WCRSS.

Individual F stated the use of the WCRSS has been successful in that the document fulfills the need for which it was designed. He stated the aforementioned problems, to his knowledge, could only have occurred during the 1979 document transition. Lastly, Individual F stated that he has not been previously made aware of the inconsistencies and inaccuracies in the HVAC inspection records for the Control Room, to the best of his knowledge.

#### Reinterview of Individual B

On August 13, 1981, Individual B was reinterviewed concerning the allegations presented herein. Upon initiation of this interview Individual B refused to answer further questions concerning this matter.

#### Other Investigative Aspects

Significant points identified during the course of this investigation include the fact that QC inspections conducted in the Control Room during 1980 identified numerous conflicts in welder identification numbers on hanger welds and the welder identification numbers on the associated WCR and/or WCRSS. (This topic is reported in detail in the Allegation 2 portion of this report.) Discrepancy Reports (DR's) were issued regarding this problem as well as discrepancies identified wherein welder identification numbers were not found at all on some welds. DI Engineering Department's disposition (corrective action) regarding these matters was "craft supervision shall determine which welder welded hanger R3353, and the appropriate corrections made." This type of disposition is unsatisfactory due to the validity of existing records also being in question. These DR's indicate the discrepancies were corrected and that DI QC approved the corrective action. It is

now being found that many of these identified discrepancies still exist.

Additionally, Individual A stated, in his June 8, 1981 interview, that during 1980, HVAC hangers were being fabricated in the Control Room for which documentation had been previously completed (including QC inspection sign off) during the summer of 1979. On July 27, 1981, Individual G, a DI Sheet Metal Journeyman, was interviewed and also stated that many hangers were welded in 1980 for which the travelers (WCR's and WCRSS's) had been completed in 1979. It is inconceivable that sheet metal supervisory personnel, responsible for the HVAC system installation, were not aware of these recorded errors.

Furthermore, the Allegation 2 portion of this report addresses Individual B's instructing subordinates to change welder identification numbers on the HVAC hangers. Individual B admitted this was done and when considered with other known facts relating the the validity of the HVAC hanger travelers it appears unlikely that he did not know these records contained numerous inaccuracies.

#### Allegation No. 2

A DI General Foreman ordered several of his subordinates to stamp a welder identification number on numerous HVAC hanger welds which had no welder identification number on them. Subordinates were also ordered to efface many welder identification numbers and replace them with another number.

#### Investigative Findings

On June 8, 1981, Individual A was interviewed. Individual A stated that in about late September and early October 1979, Individual B had ordered several sheet metal workers (Individuals A, H, and I) to stencil Individual D's welder identification number adjacent to HVAC hanger welds which had no identification number stenciled there. Individual A also stated Individual B had ordered them to efface (obliterate with a ball-peen hammer) existing welder identification numbers and replace them with Individual D's number. Individual A stated this task was worked on for approximately two weeks. Individual A surmised this was done in order that the welder identification numbers on the individual hanger welds would conform to those which were being placed on the travelers (WCR's and WCRSS's). Individual A stated he believed that no accurate traveler type record existed at that time regarding who had done what work on the HVAC hangers, and due to the necessity to get the traveler documents created prior to Individual C's (the QC inspector's name appearing on most of the HVAC travelers in the Control Room) termination of DI employment.

Interview of Individual B

On June 18, 1981, Individual B was interviewed. Individual B stated that in about October 1980, he had instructed several personnel working for him to remove welder identification numbers from hanger welds and replace them with Individual D's welder identification. He stated this was done because the welder identification numbers on some of the welds did not correspond with the welder identification numbers on the respective traveler. He had discussed the problem of the incorrectly documented welder identification numbers with Individual E, a QC supervisor, who had told him (Individual B) to research W-100 files (regarding welder/weld rod issuance) and take the required measures to correct errors "regardless of what was stamped on the steel or hangers." He stated he had then ordered his men to correct the welder identification numbers on the hangers by removing the old numbers and stamping a new one. He stated he had not explained the situation to the men involved. He also ordered these men to place Individual D's welder identification number adjacent to welds having no welder identification number on them to coincide with the numbers on the traveler documents.

Interview of Individual H

On June 30, 1981, Individual H was interviewed. Individual H stated that in about October 1979, Individual B had ordered him and several other personnel to stencil Individual D's welder identification number adjacent to Control Room HVAC hanger welds having no welder identification number. Individual H stated that, to his knowledge, all welds involved had been "bought off" by Individual C, the QC inspector working in the Control Room HVAC system at that time. Individual H stated he was never told to remove any welder identification numbers from hangers and that the only hanger welds involved were those without welder identification numbers on them.

(Investigator's Note: Examination of DI personnel records disclosed Individual I had terminated employment at Wolf Creek in the spring 1981 and no forwarding address was available.)

Interview of Individual E

On June 30, 1981, Individual E was interviewed regarding Individual B's comments that the removal and replacement of welder identification numbers on Control Room HVAC hangers had been at his instruction.

Individual E stated he recalled no such conversation regarding resolution of discrepant welder identification numbers and lack of weld numbers on hangers. Individual E stated he was never aware that the welder identification numbers on travelers and those stenciled adjacent to welds did not match and said he would never approve effacing and replacing those numbers on the hangers. He stated the proper procedure for correction of a problem of this sort would have to be made via a deficiency report and an engineering evaluation of the specific problems.

#### Interview of Individual J

On July 1, 1981, Individual J, a DI Mechanical Weld QC Inspector, was interviewed. Individual J stated that in about September 1980, he was assigned to reinspect Control Room HVAC duct hangers prior to their having fireproofing sprayed on them. Individual J stated his reinspection was to ensure welder identification numbers and weld numbers had been stenciled on the hangers. Individual J stated his reinspection identified numerous welds which had no welder identification numbers adjacent them. He stated a deficiency report was prepared identifying these discrepancies. Individual J stated Individual B had disagreed with the findings of the deficiency report and had subsequently taken him (Individual J) to some of these hangers and pointed out the numbers which had been missed. He stated some of these welder identification numbers were apparently missed during his inspection.

Individual J stated other welder identification numbers, located directly adjacent to the welds, were pointed out which him (Individual J) to believe "something fishy was going on." Individual J stated that these welder identification numbers had obviously just been stenciled on the hangers. Individual J stated he discussed this problem with his supervisor, who had told him (Individual J) not to get into an argument with the craft supervisors. Individual J stated the resolution of the aforementioned deficiency report was to refer the disposition of the remaining shortcomings to a new deficiency report which was prepared in November 1981.

#### Examination of HVAC Discrepancy Report

On July 30, 1981, an examination of deficiency reports, written regarding discrepancies found in the Control Room HVAC system, was conducted. Three deficiency reports were found which pertain to discrepancies in welder identification numbers on HVAC hanger welds which did not collate with welder's identification numbers on the respective travelers. An August 19, 1980, deficiency report noted one such discrepancy. Another prepared by Individual J (as noted in interview of Individual J above) on September 2, 1980, noted 36 such discrepancies. This deficiency report

was "closed in process" and refers to another deficiency report for corrective action taken to resolve these discrepancies. This deficiency report, dated November 13, 1980, identified only five of the 36 welders' identification number discrepancies listed on the September 2, 1980, deficiency report. The November 13, 1980, deficiency report "disposition," prepared by the Project Discipline Engineer, states "Cause of Discrepancy and action to prevent recurrence" as the appropriate resolution. The "corrective action taken" portion of this discrepancy report states "Craft has been retrained and welding discrepancies corrected to reflect correct welder identification stamps and weld numbers with corresponding traveler sheets." Individual B signed this portion indicating the corrective action was implemented.

(Investigative Note: These discrepancy reports evidenced the fact that DI/QC and DI engineering were made aware of the identification numbers discrepancies in 1980. It is also noted that the Project Discipline Engineer did not adequately address the means by which corrective action should be taken and the "Action Taken" comments inadequately explained what corrective action was taken.)

#### Contact with KG&E QA

On August 20, 1981, Mr. Glen Reeves, KG&E Assistant Site QA Manager - Wolf Creek Project, advised that a spot check of several control HVAC duct hangers disclosed that some of the welder identification number discrepancies listed on the aforementioned deficiency report still exist, despite the fact that the deficiency report reflects they were corrected.

#### Allegation No. 3

During the summer of 1981, a DI General Foreman and a Foreman had a DI QC Inspector sign off inspections for about 14 HVAC hangers, located in the Auxiliary Building, which had not actually been inspected.

#### Investigative Findings

On June 8, 1981, Individual A was interviewed. Individual A stated that during the summer 1980, he had observed Individual B provide Individual K, a DI/QC Inspector, approximately 14 travelers for HVAC

hangers, located on the 2047 level of the Auxiliary Building, Wolf Creek. Individual A stated that he observed Individual K sign off the QC inspection portion of these travelers indicating he had conducted the inspection, when in fact, he had not. Individual A stated that these hangers were located in the 1521 area of the Auxiliary Building. Individual A stated that he was personally aware that some weld defects existed on some of these particular hangers.

#### Interview of Individual B

On June 18, 1981, Individual B was interviewed. Individual B stated he was acquainted with Individual K; however, he does not remember an occasion when Individual K signed off the inspection portion of HVAC hanger travelers without having conducted the inspections.

#### Interview of Individual K

On July 29, 1981, Individual K was interviewed. Individual K stated he had worked as a Quality Control Inspector at Wolf Creek since July 1979, and had worked in the Auxiliary Building during 1979 and 1980. He stated that on occasions he had conducted inspections of work done by Individual B's sheet metal crew. Individual K stated that he had never been asked to sign off any travelers without having conducted the required inspection. Individual K stated that he had always carefully inspected work which requires his signature for the QC approval. Individual K could not specifically recall having inspected any hangers in the area alleged by Individual A.

#### Contact with KG&E QA

On July 22, 1981, Mr. Carl Parry, KG&E Site QA Auditor - Wolf Creek, was interviewed and stated a complete review of HVAC travelers for the 1521 area, Wolf Creek Auxiliary Building, had disclosed that exactly 14 hangers had been signed off as being inspected by Individual K. Mr. Parry stated that plans were being effected to conduct a complete reinspection of these hangers. Subsequent contact with Mr. Parry disclosed an August 5, 1981 reinspection of these 14 hangers had noted only minor discrepancies. He stated some undersized welds and several missing rework welder identification numbers were noted. Mr. Parry stated these discrepancies were noted on a deficiency report and corrected.

#### Allegation No. 4

HVAC ducts and hangers, located in the Control Room, were damaged during installation and not repaired. Also, much of the welding done in this area was deficient, but was approved by QC inspectors.

### Investigative Findings

On June 8, 1981, Individual A was interviewed. Individual A stated that another area with regard to which he was concerned was the overall condition of the HVAC ducts and restraints in the Control Room. Individual A stated that he personally observed that ducts were damaged during installation and not properly repaired. He stated this damage included wrinkling and buckling of ducts, as well as holes in the ducts and which were patched and then painted over. He stated that he was personally aware of a number of hangers in the control room which did not comply with the required welding procedures.

### Investigative Aspects

The foregoing investigative findings (Allegations 1, 2, and 3) report extensive traceability and documentation problems related to the Wolf Creek Control Room HVAC system. As a result of these problem areas and due to the current uncertainty regarding measures which will be required to correct them, a complete evaluation of the HVAC system was conducted. Without question, whatever corrective action decided upon by KG&E and approved by NRC will inherently lead to the identification and documentation of problems alleged here by Individual A. The identification of these problems will require that they be corrected. NRC followup is pending.

### Exit Interview

The investigator and Messrs. J. Collins, Deputy Director and J. Gagliardo, Director, Investigation and Enforcement Staff of the Region IV office met with licensee representatives (denoted in paragraph 1.) in the licensee's corporate office on August 21, 1981. The investigator discussed the scope of the investigation and the findings documented herein. The results of the licensee's investigation into the HVAC hanger weld problem was also discussed. The Region IV representatives asked the licensee representatives to address the actions that would be taken to correct the identified problems. Licensee representatives said that they were evaluating two possible solutions and would like to present their proposed actions in a meeting in Region IV in the first week of September 1981.

The RIV representatives agreed to the September meeting and asked that in addition to the specific problems in the HVAC hanger area, the licensee should address the concerns identified as unresolved items in Inspection Report 81-08.

Management Meeting

A management meeting was held between the licensee representatives denoted in paragraph 1 and representatives of Region IV in the Region IV offices on September 3, 1981.

The licensee representatives discussed the program enhancement measures which have been or will be implemented to prevent recurrence of similar problems. They also discussed the specific actions planned to resolve the HVAC support (hanger) weld discrepancies. The Region IV representatives asked for and the licensee representatives agreed to provide a written statement of the actions they committed to in the meeting.



Exhibit E

KANSAS GAS AND ELECTRIC COMPANY  
P. O. Box 208 Wichita, Kansas 67201

May 21, 1982

Mr. W.C. Seidle, Chief  
Reactor Projects Branch 2  
U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

KMLNRC 82-201

Re: Docket No. STN 50-482/Rpt. 81-10

Ref: 1) Letter KMLNRC 81-111 dated 9/10/81 from GLKoester,  
KGE, to GLMadsen, NRC  
2) Letter KMLNRC 82-173 dated 3/11/82 from GLKoester,  
KGE, to WCSeidle, NRC

Subj: Response to Inspection Report STN 50-482/81-10

Dear Mr. Seidle:

This letter is written in response to your letter of April 21, 1982, which transmitted Inspection Report STN 50-482/81-10. As requested, the violation documented in the Inspection Report is being addressed in three parts:

- a) The corrective steps which will be taken and the results achieved;
- b) Corrective steps which will be taken to avoid further violations; and
- c) The date when full compliance will be achieved.

Violation: Failure to Maintain Sufficient Records Relative to Installation of Safety-Related HVAC Hangers.

Finding:

The record shown below was identified that did not furnish evidence of activities affecting quality in that it was, in part, a falsified document and no QC inspection was conducted.

May 21, 1982

Weld Control Record Supplement Sheet No. H-10C, traveler for safety-related HVAC Hanger No. R3349, did not furnish evidence of activity affecting quality in that there was:

1. Nonexistence of a valid traveler;
2. No record of actual QC inspection of safety-related hanger No. R3349.

Response:

- a) Corrective steps which will be taken and the results achieved:

Deficiency Report LSD-9457-M was initiated and the disposition directed the preparation of a new traveler document package for the subject hanger and the rework of the welds in question. The rework will be performed and documented in accordance with approved procedures. The rework will be Quality Control inspected in accordance with Construction Procedure QCP-VIII-200.

- b) Corrective steps which will be taken to avoid further violations:

Personnel involved with the installation and inspection of HVAC duct supports shall be appropriately trained in the following procedures: WP-VII-209, WP-VIII-200, CWP-504, QCP-VII-200, QCP-VII-204, QCP-VII-504 and QCP-VIII-200.

- c) Date when full compliance will be achieved:

Full compliance was achieved on April 16, 1982.

In addition to the aforementioned corrective action, several program enhancement activities have been or are being implemented. These activities are not corrective actions, per se, but are additional actions precipitated by the documented violations. A total of seventeen enhancement activities were implemented as a result of this and other related problems. Enhancement activities 1, 11, 15, 16, 17 and 18, described in References 1 and 2, specifically relate to the violation documented in the subject Inspection Report.

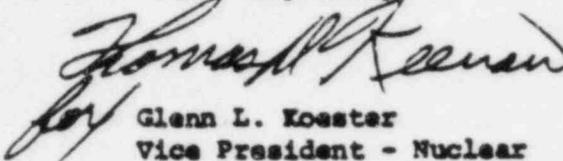
Mr. W.C. Seidle

-3-

May 21, 1982

Please contact me if you have any questions concerning this response.

Yours very truly,



Glenn L. Koester  
Vice President - Nuclear

GLK:bb

cc: Mr. Thomas Vandell  
Resident NRC Inspector  
P.O. Box 311  
Burlington, Kansas 66839

IN THE MATTER OF )  
KANSAS GAS AND ELECTRIC COMPANY ) Docket No. STN 50-482  
WOLF CREEK GENERATING STATION UNIT No. 1 )

AFFIDAVIT

I, Thomas D. Keenan, of lawful age, being duly sworn, hereby depose and state that I am Director - Nuclear Operations of Kansas Gas and Electric Company, Wichita, Kansas, that I have signed the foregoing letter of transmittal for Glenn L. Koester, Vice President - Nuclear of Kansas Gas and Electric Company, and that I have been duly authorized to sign and file with the Nuclear Regulatory Commission the attached response to the Notice of Violation identified in NRC Inspection Report No. 81-10; that I am familiar with the contents thereof; and that the matters set forth therein are true and correct to the best of my knowledge, information and belief.

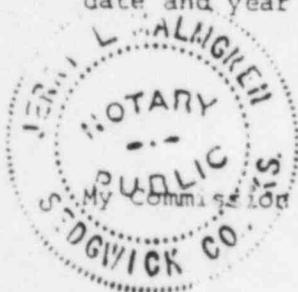
KANSAS GAS AND ELECTRIC COMPANY

By Thomas D. Keenan  
Thomas D. Keenan  
Director - Nuclear Operations

STATE OF KANSAS )  
 ) SS:  
COUNTY OF SEDGWICK )

BE IT REMEMBERED that on this 21st day of May, 1982, before me, Jerry L. Malmgren, a Notary, personally appeared Thomas D. Keenan, Director - Nuclear Operations of Kansas Gas and Electric Company, Wichita, Kansas, who is personally known to me and who executed the foregoing instrument, and he duly acknowledged the execution of the same for and on behalf of and as the act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this date and year above written.



Jerry L. Malmgren  
Notary Public

My Commission expires on March 22, 1983.



Exhibit F  
 KANSAS GAS AND ELECTRIC COMPANY  
 P. O. Box 208 Wichita, Kansas 67201

May 21, 1982

Mr. W.C. Seidle, Chief  
 Reactor Projects Branch 2  
 U.S. Nuclear Regulatory Commission  
 Region IV  
 611 Ryan Plaza Drive, Suite 1000  
 Arlington, Texas 76011

KMLNRC 82-202

Re: Docket No. STN 50-482/Rpt. 81-12

Ref: 1) Letter KMLNRC 81-111 dated 9/10/81 from GLKoester,  
 KG&E, to GLMadsen, NRC

2) Letter KMLNRC 82-173 dated 3/11/82 from GLKoester,  
 KG&E, to WCSeidle, NRC

Subj: Response to Inspection Report STN 50-482/81-12

Dear Mr. Seidle:

This letter is written in response to your letter of April 21, 1982, which transmitted Inspection Report STN 50-482/81-12. As requested, the violations documented in the report are being addressed in three parts:

- a) Corrective steps which will be taken and the results achieved;
- b) Corrective steps which will be taken to avoid further violations; and
- c) The date when full compliance will be achieved.

Each violation is addressed separately.

**I. Violation A: Failure to Follow Procedures Relative to the Installation of Safety-Related Duct Work and Supports.**

**A. Finding:**

1. Miscellaneous Structural Steel Weld Records (MSSWR) were issued to document completion and QC inspection of attachment welds on HVAC hangers from June 25 to mid-August, 1979,

May 21, 1982

even though the Weld Control Record (WCR) form was issued on July 25, 1979, by DI Engineering Department for use as an HVAC traveler.

2. DI Quality Control Procedure VIII-200, Revision 0, entitled "Field Fabrication and Erection of Safety-Related Duct Work and Supports" was not issued until September 24, 1979, indicating that there was no written procedure for QC inspection from March 26, 1979, until September 24, 1979.

B. Response:

1. Corrective steps which will be taken and the results achieved:
  - a. Nonconformance Report (NCR) 1SN-3558-M\* was generated and dispositioned to provide 100% reinspection and necessary rework and documentation of all hangers installed during the period 6/25/79 through 9/24/79.
  - b. This inspection will be accomplished in accordance with Construction Procedure QCP-VIII-200. Required rework will be performed and documented in accordance with approved procedures.

\*Note: This NCR was converted to 120 individual Deficiency Reports (DRs) to facilitate more effective tracking.

2. Corrective steps which will be taken to avoid further violations:
  - a. Personnel involved with the installation and inspection of HVAC duct supports will be appropriately trained in the following procedures: WP-VII-209, WP-VIII-200, CWP-504, QCP-VII-200, QCP-VII-204, QCP-VII-504, QCP-VIII-200.
  - b. Procedure WP-VIII-200 has been revised to clarify and better define support installation and documentation requirements.
  - c. Additional actions include:
    - (1) Identification of Construction/Inspection activities which started prior to applicable procedures being issued;

May 21, 1982

- (2) Evaluation of the impact that any lack of procedures had on work performed;
- (3) Identification of Work and Quality Procedures which were not issued concurrently;
- (4) Evaluation of the impact that any lack of continuity had on work performed.

In addition, Construction Procedure AP-I-01 has been revised to require concurrent review and revision, if necessary, of Work and Quality Procedures when one or the other is revised.

3. Date when full compliance will be achieved:
  - a. Full compliance will be achieved on May 27, 1982.

II. Violation B: Failure to Maintain Sufficient Records Relative to Installation of Safety-Related HVAC Hangers.

A. Finding:

Records were identified that did not furnish evidence of activities affecting quality in that they were fallacious. Examples of fallacious records were:

1. Data was transferred from the MSSWR form (which documents only attachment welds) to the WCR form (which documents the fabrication/QC inspection of the complete hanger) using hanger blueprints to identify the welds on each hanger with no visual confirmation that the welds had been completed.
2. Data was subsequently transferred from the WCR form to form Weld Control Record Supplement Sheet (WCRSS), which documents each individual weld on the respective hanger, with no valid record that the information on the WCR form correctly represented the fabrication and QC approval of a completed hanger.
3. Numerous conflicts were identified in the Control Room HVAC hangers where the welder identification numbers on hanger welds and the welder identification numbers on the associated WCR form and/or WCRSS form did not correspond.

B. Response:

1. Corrective steps which will be taken and the results achieved:

May 21, 1982

- a. NCR 1SN-3558-M was initiated and dispositioned to provide for 100% reinspection and any required rework of the subject hanger welds. The inspection will be accomplished in accordance with Construction Procedure QCP-VIII-200. Designated rework will provide valid documentation for each weld and assure proper welder identification.
2. Corrective steps which will be taken to avoid further violations:
    - a. Identification of Quality Inspection Forms, identification of revisions to forms where attributes were added, identification of the use of revised forms prior to issuance in revised procedures, identification of where two or more revisions of a form document a specific inspection and the evaluation of the impact on the work of any discrepancies identified.
    - b. Development of a procedure (AP-II-02) for the preparation of policy statements, issuance of a policy statement concerning the transfer of data, issuance of a policy statement concerning the importance of Quality Documentation, and development of a Quality Presentation on this subject to be presented to Craft and Quality personnel.
    - c. Thorough evaluation of the impact of uncontrolled transfer of information on inspection documentation and data transfer on HVAC traveler documents.
  3. Date when full compliance will be achieved:
    - a. Full compliance will be achieved on May 27, 1982.

III. Violation C. Failure to Establish Adequate Measures Relative to the Identification and Correction of Conditions Adverse to Quality.

A. Finding:

DI Deficiency Report 1SD5455M, dispositioned on November 18, 1980, states in part, "Incorrect entries on WCRs and/or incorrect "D" stamping to be corrected under direction of craft supervision....". The "Action Taken" portion of DR 1SD5455M states, "Craft has been retrained and welding discrepancies corrected to reflect correct "D" stamps and weld number with corresponding traveler sheets."

Welding discrepancies had not been corrected to reflect correct "D" stamps and weld numbers with corresponding traveler sheets in that a reexamination of certain supports, i.e., R3349 on June 25, 1981, and R3240 on August 20, 1981, revealed that the welder "D" numbers did not correspond with the traveler sheets.

B. Response:

1. Corrective steps which will be taken and the results achieved:
  - a. NCR 1SN-3558-M was generated and dispositioned to provide 100% reinspection and any required rework of supports in question in accordance with Construction Procedure QCP-VIII-200. These actions will ensure adequate Quality records and that welder identification on supports agrees with the traveler records. DR 1SD9457MW was issued to address the welder identification conflict on support R3349 and DR 1SD8412MW was issued for support R3240.
2. Corrective steps which will be taken to avoid further violations:
  - a. Construction Procedure AP-VI-02, "Nonconformance Control and Reporting" has been revised to include the review of all NCR/DR dispositions for adequacy by Quality Engineering.
  - b. All personnel involved with the dispositioning of NCR/DRs will be indoctrinated in the cause and corrective action requirements of NCR/DR dispositions.
3. Date when full compliance will be achieved:
  - a. Full compliance will be achieved on May 27, 1982.

IV. Violation D. Failure to Establish Adequate Measures to Assure that Special Processes are Controlled and Accomplished by Qualified Personnel.

A. Finding:

Valid welder identification numbers were changed in September and October of 1979 to agree with erroneous Weld Control Records, thus eliminating their authenticity.

May 21, 1982

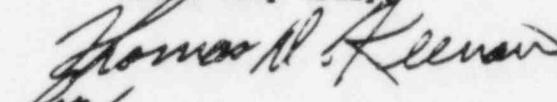
B. Response:

1. Corrective steps which will be taken and the results achieved:
  - a. NCR LSN-3558-M was generated and dispositioned to provide for 100% inspection and necessary rework of the supports in question. These actions will ensure that the welder identification on the supports are correct and agree with the traveler records.
2. Corrective steps which will be taken to avoid further violations:
  - a. Work Procedure WP-VIII-200 was revised to clarify and better define the installation and documentation requirements for EVAC supports.
  - b. Personnel involved in the installation of EVAC supports will have appropriate training in the requirements of WP-VIII-200.
3. Date when full compliance will be achieved:
  - a. Full compliance will be achieved on May 27, 1982.

In addition to the aforementioned corrective actions, other program enhancement activities have been or are being implemented. These activities are additional actions precipitated by the documented violations. A total of seventeen enhancement activities are being implemented as a result of several related problems. Enhancement activities 3, 5, 11, 13, 15, 17 and 18, described in References 1 and 2, specifically relate to the four violations documented in the subject Inspection Report.

Please contact me if you have any questions concerning this response.

Yours very truly,

  
Glenn L. Koester  
Vice President - Nuclear

GLK:bb

cc: Mr. Thomas Vandell  
Resident NRC Inspector  
P.O. Box 311  
Burlington, Kansas 66839

IN THE MATTER OF )  
KANSAS GAS AND ELECTRIC COMPANY ) Docket No. STN 50-482  
WOLF CREEK GENERATING STATION UNIT No. 1 )

AFFIDAVIT

I, Thomas D. Keenan, of lawful age, being duly sworn, hereby depose and state that I am Director - Nuclear Operations of Kansas Gas and Electric Company, Wichita, Kansas, that I have signed the foregoing letter of transmittal for Glenn L. Koester, Vice President - Nuclear of Kansas Gas and Electric Company, and that I have been duly authorized to sign and file with the Nuclear Regulatory Commission the attached response to the Notice of Violation identified in NRC Inspection Report No. 81-12; that I am familiar with the contents thereof; and that the matters set forth herein are true and correct to the best of my knowledge, information and belief.

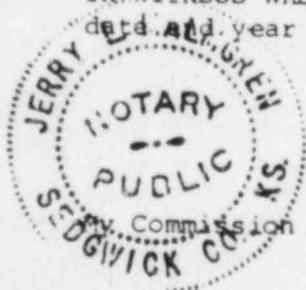
KANSAS GAS AND ELECTRIC COMPANY

By Thomas D. Keenan  
Thomas D. Keenan  
Director - Nuclear Operations

STATE OF KANSAS )  
 ) SS:  
COUNTY OF SEDGWICK )

BE IT REMEMBERED that on this 21st day of May, 1982, before me, Jerry L. Malmgren, a Notary, personally appeared Thomas D. Keenan, Director - Nuclear Operations of Kansas Gas and Electric Company, Wichita, Kansas, who is personally known to me and who executed the foregoing instrument, and he duly acknowledged the execution of the same for and on behalf of and as the act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 21st day of May, 1982.



Jerry L. Malmgren  
Notary Public

My Commission expires on March 22, 1983.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

July 16, 1982

Docket: STN 50-482/81-10

Kansas Gas & Electric Company  
ATTN: Mr. Glenn L. Koester  
Vice President - Nuclear  
P. O. Box 208  
Wichita, Kansas 67201

Gentlemen:

Thank you for your letter of May 21, 1982, in response to our letter, dated April 21, 1982, and the attached Notice of Violation. We have no further questions at this time, and we will review your corrective action during a future inspection.

Sincerely,

W. C. Seidle, Chief  
Reactor Project Branch 2



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

Exhibit H

July 16, 1982

Docket: STN 50-482/81-12

Kansas Gas and Electric Company  
ATTN: Mr. Glenn L. Koester  
Vice President - Nuclear  
Post Office Box 208  
Wichita, Kansas 67201

Gentlemen:

Thank you for your letter of May 21, 1982, in response to our letter, dated April 21, 1982, and the attached Notice of Violation. We have no further questions at this time, and we will review your corrective actions during a future inspection.

Sincerely,

A handwritten signature in cursive script, appearing to read "W. C. Seidle".

W. C. Seidle, Chief  
Reactor Project Branch 2



UNITED STATES

Exhibit I

APR 14 1983 NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

April 12, 1983

Docket: STN 50-482/83-06

Kansas Gas and Electric Company  
ATTN: Mr. Glenn L. Koester  
Vice President-Nuclear  
Post Office Box 208  
Wichita, Kansas 67201

Gentlemen:

This refers to the inspection conducted under the Resident Inspection Program-Construction by Mr. H. W. Roberds of this office during the period February 21, through March 15, 1983, of activities authorized by NRC Construction Permit No. CPPR 147, and to the discussion of our findings with Mr. C. E. Parry, and other members of your staff.

Areas examined during the inspection and our findings are documented in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no violations or deviations were identified.

We have also examined action you have taken with regard to previously identified inspection findings. The status of these items is identified in paragraph 2 of the enclosed report.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter, and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

W. C. Seidle, Chief  
Reactor Project Branch 2

Enclosure:  
Appendix - NRC Inspection Report STN 50-482/83-06

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Report: STN 50-482/83-06  
Docket: STN 50-482 Category A2  
Licensee: Kansas Gas and Electric Company  
Post Office Box 208  
Wichita, Kansas 67201  
Facility Name: Wolf Creek Generating Station  
Inspection At: Wolf Creek Site, Coffey County, Burlington, Kansas  
Inspection Conducted: February 21 - March 15, 1983

Inspector: *H. W. Roberds* 3/30/83  
H. W. Roberds, Senior Resident Inspector,  
Construction, Reactor Project Section C Date

Approved: *W. D. Johnson* 4/4/83  
W. D. Johnson, Chief, Reactor Project  
Section C Date

Inspection Summary

Inspection During February 21 through March 15, 1983 (Report STN 50-482/83-06)

Areas Inspected: Routine, announced inspection by the Senior Resident Reactor Inspector (SRI) covering action on previous inspection findings; construction deficiency reports 50.55(e); observations of safety-related pipe hangers and supports; and general plant tours. The inspection activity involved 56 inspector-hours by the SRI.

Results: Within the four areas inspected, no violations or deviations were identified.

DETAILS1. Persons ContactedPrincipal Licensee Personnel

- \*G. W. Reeves, Assistant QA Manager, Wolf Creek Generating Station (WCGS)
- \*W. M. Lindsay, Senior QA Engineer, WCGS
- E. W. Creel, QA Manager, Kansas Gas and Electric Company (KG&E)
- \*D. A. Colwell, QA Technologist, WCGS
- \*C. E. Parry, QA Systems Supervisor, WCGS
- M. E. Clark, Nuclear Coordinator, Corporate, KG&E
- O. L. Thero, QA Surveillance Supervisor, KG&E
- O. L. Maynard, Senior Engineer, Corporate, KG&E

Other Personnel

- \*C. D. Mauldin, Project Quality Engineer, Daniel International Corp. (DIC)
- \*L. F. Warrick, Project Manager, DIC
- \*R. E. Harper, Mechanical Manager, DIC
- \*W. D. Johnson, NRC Region IV, Section Chief

\*The above identified personnel attended the exit meeting held on March 15, 1983.

Other licensee and contractor personnel were contacted during the course of the inspection.

2. Licensee Actions on Previous Inspection Findings

(Closed) Violation (STN 50-482/8110): Weld Control Record Supplement Sheet No. H-10C for safety-related heating/ventilating/air conditioning (HVAC) Hanger Number R3349 did not have a valid traveler and no record of QC inspection.

Deficiency Report Number (DR) 1SD-9457-M was initiated and directed the preparation of a new traveler document package for HVAC Hanger Number R3349 and the rework of all welds in question. The corrective action was completed on April 16, 1982.

(Closed) Violations A, B, C, and D (STN 50-482/8112):

Violation A: Date of inspection records did not correlate with the weld control record (WCR) form.

Violation B: (1) No visual confirmation on welds of certain HVAC hangers; (2) No valid record that the information transferred from the weld control record supplement sheet (WCRSS) to the WCR form correctly represented

the fabrication and QC approval of a completed hanger; and (3) Welder identification numbers stamped on hanger welds did not correlate with the welder's identification numbers recorded on the WCR and/or WCRSS forms.

Violation C: Failure to implement the corrective action as stated on DR Number 1SD-5455-M relative to correcting the WCR to reflect the correct welder identification and weld number with the corresponding traveler sheets.

Violation D: Valid welder identification numbers were changed to agree with erroneous WCR which eliminated their authenticity.

The corrective action for the preceding violations was the issuance of NCR 1SN-3558-M which required 100 per cent reinspection, necessary rework and complete documentation of 120 hangers installed during the period June 25, 1979, through September 24, 1979. As a result of the number of discrepancies identified, the scope of the reinspection was expanded to include all safety-related hangers/supports in the HVAC system and rework as necessary. The reinspection and rework of HVAC system was completed on January 20, 1983.

To prevent a recurrence of these deficiencies, the inspectors were given additional training and requalified for weld inspection for the installation and inspection of HVAC duct supports. The applicable procedures for welding and inspection of HVAC supports were revised to clearly define the welding requirements and the inspection criteria for installation of HVAC supports. These actions were completed on April 16, 1982.

### 3. Licensee Activity on 50.55(e) Items

#### A. Thrust Bearing Failure on Colt Industries Diesel Generator (file # 53564-K37)

Final report of August 16, 1982 - Thrust bearing failure on Colt Industries diesel generators furnished to the Wolf Creek site. The failure was a result of insufficient clearance between the bearing halves to allow for thermal expansion. The corrective action was to machine the upper half bearing at the gap surface an additional .015 to .020 inch which would allow for the thermal expansion without contact between bearing halves.

DR Number 1SD-4021 was initiated on May 20, 1980, for replacement of thrust bearing on Colt Industries furnished diesel generator KKJ01B. Rework to be accomplished in accordance with the rework plan M-6 and Fairbanks Morses's "Procedure For Replacing Exterior

Thrust Bearings" Number P12-612 942. Thrust bearings were machined as necessary to obtain the required clearance and replaced. The work was completed on March 31, 1982.

This item is considered closed.

B. Final Report of August 16, 1982 - Documentation and Installation Deficiencies in the Safety-Related HVAC Duct Supports (file # 53564-K59)

As a result of the investigation of the installation of safety-related HVAC duct supports, several deficiencies were identified as follows:

- . Weld records were incomplete
- . Records were fallacious relative to weld numbers
- . QC inspection
- . Welder identification
- . Falsified documents
- . Inadequate measures to identify and correct conditions adverse to quality
- . Inadequate measures to assure control of special processes
- . Inadequate weld inspection

To correct these deficiencies, a Nonconformance Report Number (NCR) ISN-3558 was issued requiring 100 per cent reinspection and rework of 120 HVAC hangers/supports. As a result of the number of discrepancies disclosed on the reinspection of the 120 HVAC hangers/supports, the scope was expanded to include all safety-related hangers/supports in the HVAC system. Rework was completed on January 20, 1983. (For additional information see paragraph 2 of this report)

This item is considered closed.

4. Safety-Related Pipe Hangers

The inspector observed pipe hangers that had been installed and QC accepted in the fuel pool cooling and cleaning system. A random selection of four pipe hangers were inspected for weld configuration, and a review of the record packages was performed to ascertain the following:

- A. Welding was accomplished in accordance with applicable drawing relative to fillet weld size and location.
- B. Welders were currently qualified for the process used and were reflected on the qualified welder list during the time frame in which the welding was accomplished.
- C. The required nondestructive examination had been performed by qualified personnel using approved procedures.
- D. The documentation records were complete relative to weld material used, material verification of the hanger, and weld records.

No violations or deviations were identified.

5. Plant Tours

Plant areas were toured several times during the reporting period to observe general construction practices, area cleanliness, and storage conditions of plant equipment.

No violations or deviations were identified.

6. Exit Meetings

The SRI met with licensee representatives denoted in paragraph 1 on March 15, 1983. The scope of inspection activity and the resultant findings were discussed with the licensee representatives.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

Exhibit J

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011  
November 22, 1983

In Reply Refer To:  
Docket: 50-482/83-25

Kansas Gas and Electric Company  
ATTN: Mr. Glenn L. Koester  
Post Office Box 208  
Wichita, Kansas 67201

Gentlemen:

This refers to the inspection conducted under the Resident Inspection Program - Construction by Messrs. H. W. Roberds and A. L. Smith of this office during the period August 16 through October 31, 1983, of activities authorized by NRC Construction Permit No. CPPR 147, for the Wolf Creek Generating Station, and to the discussion of our findings with Mr. W. J. Rudolph and other members of your staff at the conclusion of the inspection.

Areas examined during the inspection included licensee action on previous inspection findings, installation of containment heating, ventilating, and air conditioning (HVAC), followup of allegations, and plant tours. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspectors. The inspection findings are documented in the enclosed inspection report.

During this inspection, it was found that certain of your activities were in violation of NRC requirements. Consequently, you are required to respond to this violation, in writing, in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter, and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

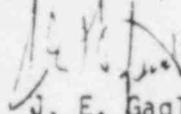
Kansas Gas and Electric Company

2

The response directed by this letter and the accompanying Notice is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



J. E. Gagliardo, Acting Chief  
Reactor Project Branch 2

Enclosures:

1. Appendix A - Notice of Violation
2. Appendix B - NRC Inspection Report 50-482/83-25

APPENDIX A

NOTICE OF VIOLATION

Kansas Gas and Electric Company  
Wolf Creek Generating Station

Docket: 50-482/83-25  
Permit: CPPR 147

Based on the results of an NRC inspection conducted during the period of August 16, 1983, through October 31, 1983, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 47 FR 9987, dated March 9, 1982, the following violation was identified:

Failure to Follow and/or Implement Quality Requirements

10 CFR Part 50, Appendix B, Criterion V, requires, in part, that activities affecting quality shall be prescribed by instructions, procedures, or drawings and shall be accomplished in accordance with these instructions, procedures, or drawings.

Bechtel Specification No. 10466-M-618.2, "Technical Specification for Field Installation of Ductwork (Q listed) for the Standardized Nuclear Unit Power Plant System (SNUPPS)," paragraph 5.8 states: "Welding of structural members shall be in accordance with American Welding Society (AWS) D.1.1."

AWS D.1.1-75, paragraph 5.5.2, requires that when essential changes are made in a welding procedure, a new procedure must be established by qualification. Paragraph 5.5.2.1, for Shielded Metal Arc Welding (SMAW), further defines the omission of backing material as an essential change.

Daniel International Corporation (DIC) Technique Sheet N-1-1-A-18 is qualified for AWS plug welds for the SMAW process using the mating surface of the lapped material as a backing material.

Contrary to the above, DIC Technique Sheet N-1-1-A-18 was used for restoration of mislocated holes in Piece A of HVAC Hanger 2070 by plug welding with the omission of backing material, without establishing a new procedure by qualification.

This is a Severity Level V Violation. (Supplement II)  
(482/8325-01)

Pursuant to provisions of 10 CFR 2.201, Kansas Gas and Electric Company is hereby required to submit to this office, within 30 days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

Dated: November 22, 1983

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

NRC Inspection Report: 50-482/83-25 CP: CPPR 147

Docket: 70-482 Category: A2

Licensee: Kansas Gas and Electric Company (KG&E)  
Post Office Box 208  
Wichita, Kansas 67201

Facility Name: Wolf Creek Generating Station

Inspection At: Wolf Creek Site, Coffey County, Burlington, Kansas

Inspection Conducted: August 16, 1983 through October 31, 1983

Inspector:

W.D. Johnson for  
H. W. Roberts, Senior Resident Inspector,  
Construction, Reactor Project Section C

11/15/83  
Date

Inspector:

W.D. Johnson for  
A. L. Smyth, Senior Resident Inspector,  
Construction, Reactor Project Section C

11/15/83  
Date

Approved:

W.D. Johnson  
W. D. Johnson, Chief, Reactor Project  
Section C

11/15/83  
Date

Inspection Summary

Inspection During August 16 - October 31, 1983 (Report 50-482/83-25)

Areas Inspected: Routine, announced inspection of licensee action on previous inspection findings; installation of the containment safety-related HVAC systems; followup on allegations; and plant tours. The inspection involved 211 inspector-hours onsite by two NRC inspectors.

Results: Within the 4 areas inspected, one violation was identified (failure to follow and/or implement quality requirements, paragraph 5).

DETAILS1. Persons ContactedPrincipal Licensee Personnel

- F. J. Duddy, Project Director
- G. L. Fouts, Construction Manager
- W. J. Rudolph, Site QA Manager
- \*C. E. Parry, QA Systems Supervisor
- R. M. Grant, Assistant QA Manager, Corporate
- \*D. A. Colwell, QA Technologist
- \*H. F. Chernoff, Licensing
- \*L. O. Cambell, General Superintendent

Other Personnel

- \*J. R. Fletcher, Project QA Manager, DIC
- \*J. P. Kirk, Project Administrator, DIC
- K. Rowell, HVAC Welder, DIC
- R. Shaneyfelt, HVAC Fitter, DIC
- L. Wieszorek, HVAC Welder, DIC
- S. Garrett, General Foreman, DIC
- C. Evans, Sheet Metal Foreman, DIC
- J. Herron, Sheet Metal Foreman, DIC
- W. Webb, Sheet Metal Journeyman, DIC
- L. Partridge, Sheet Metal Superintendent, DIC
- \*O. L. Thero, QA Consultant

Other licensee and contractor personnel were also contacted during the course of this inspection activity.

- \*The above identified personnel attended the exit meeting held on October 27, 1983.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (50-482/8316-01): Failure to maintain 1/2 inch minimum radius where the cope changed directions on accumulator supports as required by DIC Procedure WP-IV-III.

Nonconformance Report (NCR) 1SN11456C was issued to identify the specific beams which had copes with insufficient radius. KG&E QA examined thirty-five additional sections (fabricated by DIC) on the accumulator platform with one additional section identified as discrepant. It was determined that the structural steel, in question, was fabricated and installed by field forces because of a design change to the accumulator supports.

Due to the size of the beams involved, the copes were cut in a fabrication shop other than the shop normally performing this function. Bechtel engineers have examined the discrepant sections and recommend to use "as is". In addition to the 35 additional sections examined, separate inspections by KG&E and DIC were conducted on a random basis on approximately 50 additional sections in the reactor building, auxiliary building, and the diesel generator building to determine if coping requirements were being implemented. No discrepancies were noted, hence, it is assumed that this is not a generic problem.

This item is considered closed.

(Closed) Violation (50-482/8318-01): Substitution of uncertified material for Pipe Hanger No. BG04-C033, Piece 2.

The subject hanger was removed and refabricated from material with traceable certification and installed with final QA acceptance on July 15, 1983. Hanger No. BG04-C033 was one of the 129 hangers that were reinspected in response to an allegation of material substitution made to the NRC in 1981. A review of records indicated that Piece 2 of Hanger No. BG04-C033 was stamped with a valid heat number. The inspector of record had no reason to doubt the validity of the material identification.

This item is considered closed.

(Closed) Unresolved Item (50-482-8108-01): Reinspection of 129 safety-related pipe hangers in the auxiliary building as a result of the allegations of material substitutions.

The 129 pipe hangers in question were reinspected and rework was performed as necessary. The corrective action was completed on November 12, 1982.

This item is considered to be resolved.

(Closed) Violation (50-482/8313-01): Certain quality control personnel who perform inspections, examinations, and test were not capable of reading the J-1 letters on the Jaeger test.

Personnel who did not meet the minimum Jaeger J-1 requirements were reexamined with satisfactory results. DIC Procedure No. AP-VI-01, Revision 14 was revised to define the visual acuity requirement for quality control personnel.

This item is considered closed.

3. Followup of Allegation - Alleged Voiding of NCR by Senior Quality Supervision (SQS)

The alleged stated that a certain NCR, relative to paint on electrical junction boxes, had been voided by a SQS.

As stated in NRC Inspection 50-482/83-21 paragraph 3B, after the NRC inspector's initial investigation of this allegation, he felt that additional inspection/investigation effort was required before a conclusion could be made relative to this allegation. During this reporting period (August 16 - October 31, 1983), no additional investigation was made by the NRC inspectors, hence, this allegation will remain open.

4. Investigation of Allegations Relative to HVAC/Sheetmetal Areas

On the morning of October 5, 1983, the NRC resident's office at the Wolf Creek site was contacted by a DIC employee who voiced concerns about the construction practices used in fabricating and installing the HVAC system in the reactor and auxiliary buildings and with certain pressures that were being applied to craft personnel by their supervisors. The specific allegations made by the individual were:

- a. That at the direction of his immediate foreman, he had overtorqued HVAC hanger anchor bolts in the auxiliary building to 300 foot-pounds in order to stretch the bolts to obtain full thread engagement. He alleged that this was accomplished after QA/QC acceptance.
- b. That his general foreman had stated, in a meeting of HVAC/sheetmetal craftsmen, that each employee was to do as his foreman said, regardless of procedures, or be fired.
- c. That his immediate foreman had told him that he (the alleged) could not contact the NRC except with DIC management approval.
- d. That he was aware that unauthorized welds had been made in the HVAC ducts and hangers in the reactor building and that at least one DIC welder was "willing to talk about some of these welds" if he was contacted by the NRC.

Later during the morning of October 5, 1983, the NRC resident's office was again contacted by the same DIC employee who alleged that he was being harassed by his foreman because he had contacted the NRC.

After discussions with Region IV management, the NRC inspectors met with the KG&E project director to inform him of the allegations.

On October 17, 1983, the NRC resident's office was contacted by a second DIC employee who made an allegation which was directly related to the first series of allegations. The employee alleged that on October 13, 1983, he had been threatened with bodily harm by a DIC sheetmetal foreman who had heard that he had contacted the NRC concerning wrongdoings on his (the foreman's) part.

During the period, October 5 through October 31, 1983, an independent investigation concerning all of the above allegations was conducted by the NRC inspectors and a KG&E QA team. In addition, 12 DIC employees were interviewed jointly by the NRC inspectors, the KG&E project director, and the site QA manager. As of the end of this reporting period this investigation is still ongoing.

5. Inspection of Installation of Reactor Building Safety-Related and II/I HVAC Ducts

The NRC inspector performed an inspection of the installation of the HVAC ducts in the reactor building. Particular emphasis was placed on the repair of ducts and duct hangers. Documents reviewed during this inspection included structural steel weld records, weld procedures, and applicable drawings and specifications. During review of the documentation package for the repair of mislocated holes in Piece A of HVAC Hanger 2070, it was noted that the weld procedure used (N-1-1-A-18) had not been qualified for plug welding with the omission of backing material. This is an apparent violation of paragraph 5.5.2 of AWS D.1.1-75 which is imposed by Bechtel Specification No. 10466-M-618.2. (482/8325-01)

6. Plant Tours

Plant areas were toured several times during the reporting period to observe construction practices and cleanliness.

No violations or deviations were identified.

7. Systematic Assessment of Licensee Performance (SALP) Meeting

On September 13, 1983, the NRC inspectors attended the SALP Board meeting at the NRC Region IV Office in Arlington, Texas.

8. Management Meetings

On October 6 and 7, 1983, the NRC Region IV Regional Administrator and the Region IV Director, Division of Resident, Reactor Project and Engineering Programs were at the Wolf Creek Site for two meetings. The onsite NRC inspectors attended both meetings, and the details concerning each meeting are as follows:

a. Meeting with Senior Licensee Management Personnel

During this meeting the KG&E staff made a presentation on the status of key project/program elements at the Wolf Creek site. Items discussed included:

- . Status of KG&E reverification program for systems that were turned over to startup prior to KG&E's issuance of stop work order.
- . System turnover quality action plan implementation prior to stop work order being lifted.
- . Combined review group's review of Danie' construction quality documentation.
- . Overview of IE Bulletin 79-14 pipe configuration walkdown.
- . Presentation of incomplete items on systems at time of turn-over to startup.

b. Meeting with Site Managers and Supervisors

On October 7, 1983, the Region IV Regional Administrator and the Region IV Director, Division of Resident, Reactor Project and Engineering Programs addressed all Wolf Creek site managers and supervisors, including all onsite contractors performing safety-related work. The major theme of their presentations was the licensee's responsibility concerning quality assurance for the Wolf Creek project and a reemphasis of the need to implement a strong QA/QC program.

9. Exit Meeting

The NRC inspectors met with the licensee representatives denoted in paragraph 1, on October 27, 1983. The scope of the inspection activity (with the exception of investigation of allegations outlined in paragraph 4 above) and the related findings were discussed with the licensee representatives.



Exhibit K

KANSAS GAS AND ELECTRIC COMPANY  
P. O. Box 208 Wichita, Kansas 67201



December 22, 1983

Mr. J.E. Gaqliardo, Acting Chief  
Reactor Projects Branch 2  
U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

KMLNRC 83-166  
Re: Docket No. STN 50-482  
Subj: Response to Inspection Report STN 50-482/B3-25

Dear Mr. Gaqliardo:

This letter is written in response to your letter of November 22, 1983, which transmitted Inspection Report STN 50-482/B3-25. As requested, the violation identified in the Inspection Report is being addressed in three parts:

- a) The corrective steps which have been taken and the results achieved;
- b) Corrective steps which will be taken to avoid further violations; and
- c) The date when full compliance will be achieved.

VIOLATION: Failure to Follow and/or Implement Quality Requirements

Finding:

10 CFR Part 50, Appendix B, Criterion V, requires, in part, that activities affecting quality shall be prescribed by instructions, procedures, or drawings and shall be accomplished in accordance with these instructions, procedures, or drawings.

Bechtel Specification No. 10466-M-618.2, "Technical Specification for Field Installation of Ductwork (Q listed) for the Standardized Nuclear Unit Power Plant System (SNUPPS)," paragraph 5.8 states:

Finding (continued):

"Welding of structural members shall be in accordance with American Welding Society (AWS) D.1.1."

AWS D.1.1-75, paragraph 5.5.2, requires that when essential changes are made in a welding procedure, a new procedure must be established by qualification. Paragraph 5.5.2.1, for Shielded Metal Arc Welding (SMAW), further defines the omission of backing material as an essential change.

Daniel International Corporation (DIC) Technique Sheet N-1-1-A-18 is qualified for AWS plug welds for the SMAW process using the mating surface of the lapped material as a backing material.

Contrary to the above, DIC Technique Sheet N-1-1-A-18 was used for restoration of mislocated holes in Piece A of HVAC Hanger 2070 by plug welding with the omission of backing material, without establishing a new procedure by qualification.

Response:

a) Corrective steps which have been taken and results achieved:

Nonconformance Report (NCR) #1SN 14786 MW has been generated to document the identified concern and to provide appropriate controls to assure satisfactory resolution. The NCR requires an evaluation of the acceptability of the affected material as well as an investigation into the extent of the identified concern.

b) Corrective steps which will be taken to avoid further violations:

Daniel is currently retraining craft supervision in the proper use of welding technique N-1-1-A-18. In addition, the Daniel Project Welding Engineer will initiate a letter that will emphasize the importance of contacting Welding Superintendents or Welding Engineering when questions arise concerning welding or the use of welding techniques.

December 22, 1983

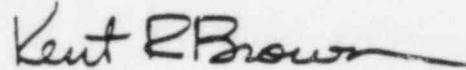
Response (continued):

c) Date when full compliance will be achieved:

The actions discussed in Paragraph b) of the response  
will be completed by December 30, 1983.

Supporting documentation for the responses provided above is available  
for review at the Wolf Creek job site. If you have any further questions  
concerning this response, please contact me or Mr. Otto Maynard of my  
staff.

Yours very truly,



for Glenn L. Koester  
Vice President - Nuclear

GLK:bb

cc: SSchum

# Violations announced <sup>Burlington</sup> 5-5-82

Five notices of violation concerning procedures for documenting welds on the metal frames that support heating and air conditioning ducts at Wolf Creek Generating Station have been issued by the Nuclear Regulatory Commission, Kansas Gas and Electric Company has announced. The violations occurred in 1979-80. Plant construction procedures were changed some time ago to prevent recurrence.

An investigation by the NRC and the utilities owning the plant followed allegations by former construction employees. The allegations were aired by a Kansas City television station in June-July, 1981.

Although all five notices of violation relate to the constructor's failure to document adequately installation and inspection activities, welds on the heating and air conditioning duct supports are being replaced so both installation and inspection activities are documented as required. That activity is virtually complete under a plan accepted by the NRC.

Discrepancies included the use of the wrong form to document quality control inspections of welds and failure to have a written procedure to direct the inspection of air conditioning ductwork and supports during the first few months of that activity in 1979. The NRC reports also describe the improper transfer of data from one form to another, welder identification numbers not corresponding with those listed on forms and using improper methods to correct problems when identified.

Another finding was that a quality control inspector's signature had been forged on an inspection form. Although the NRC, with the

aid of the FBI, determined a forgery did occur, the report indicated the forger could not be identified.

All violations are classified Level IV by the NRC. Within the NRC's system of classification, the least severe violations are Level VI the most severe Level I.

## Utility fixes faulty welds at W.C.

The Nuclear Regulatory Commission has cited several violations in the inspection of heating and air conditioning duct work at the Wolf Creek Nuclear power Plant, the utility constructing the plant said Thursday.

The violations occurred in 1979 and were made public nearly a year ago by former plant construction workers in an interview with KMBC-TV in Kansas City, Mo., said Robert L. Rives, a vice president for Kansas Gas & Electric.

Rives said that all welds affected by the violations were being replaced so both installation and inspection could be documented as required.

Violations included the use of the wrong form to document quality control inspections of welds for the heating and cooling ducts that will serve the plant's control building, Rives said.

The NRC also said there had been a failure to have a written procedure to direct the inspection of air conditioning duct and support work during the first few months of 1979.

The NRC, with help from the FBI, also found that a quality control inspector's signature had been forged on an inspection form in December 1980. The NRC said it was unable to determine who forged the signature, Rives said.

All of the violations were classified as Level IV by the NRC. Within the NRC's system, the least severe violations are classified as Level VI. No fines had been imposed for the Wolf Creek violations, he said.

Wolf Creek is under construction near Burlington, in east-central Kansas, and is expected to begin operating in May 1984.

Burlington - 5-3-82



# Forged paperwork confirmed at Wolf Creek

By Mitchel Benson  
Energy/Environment Writer

Forged signatures of a quality-control inspector and other discrepancies in documentation concerning the Wolf Creek nuclear power plant have been confirmed by two Nuclear Regulatory Commission investigations. Reports on the investigations were released Thursday.

The commission issued five notices of violation to the Kansas Gas and Electric Co. for the procedures that its lead contractor, the Daniel Construction Co., used to document welds on 122 steel frames that support ducts at the nuclear power plant near Burlington, Kan.

No fine has been levied for the violations, which officials said probably would not have posed safety problems.

However, Kansas Gas and Electric is spending a little more than \$200,000 to weld and reinspect all welds in question. That work, started last summer, is still going on. Whether the cost will be picked up by utility customers will not be decided until the plant begins generating electricity.

The duct hangers in question are in the nuclear power plant's control building, where the reactor's control room will be located. The building is one of seven main structures in the \$1.9 billion project, scheduled to begin producing power in May 1984.

Officials of the Nuclear Regulatory Commission and the utility said the problems with the documentation probably would not have posed a safety hazard, even if they had not been discovered. But the discrepancies do cloud the issue of the quality of the welds themselves.

"Frankly, we would not expect that there would be any great problem," said Bob Rives, the vice president of system services for Kansas Gas and Electric. "They (the duct hangers) support the air-conditioning and heating and air ventilation systems. That's what wouldn't be there, if worst came to worst — if it fell out."

Added Clyde Wisner, a spokesman for the Nuclear Regulatory Commission regional office in Arlington, Texas: "It's more of a case that the (proper) documents were not there. I don't know that there was ever any question of the quality of the welds themselves."

The five violations occurred in 1979 and 1980, and the Nuclear Regulatory Commission conducted its investiga-

tions on a total of 18 days from May through August of 1981.

Kansas Gas and Electric and the Kansas City Power & Light Co., partners in the power plant, made a joint release on Thursday of a statement and the two investigation reports.

Only last week, Kansas Gas and Electric released a Nuclear Regulatory Commission investigation report which concluded that certain parts designed to support pipes at the Wolf Creek plant were made from scrap materials at the construction site instead of approved steel. The parts, called counterfeit in the report, were caught before they were installed.

Mr. Rives said that report is unrelated to the two released Thursday.

The five violations reported Thursday are classified as Level IV violations. The most severe violations are Level I and the least severe are Level

VI.

Among the paperwork and documentation discrepancies cited in the latest reports are:

- Use of the wrong form to document quality-control inspections of welds.
- Failure to have a written procedure to direct the inspection of air-conditioning duct work and supports during the first few months of that activity in 1979.
- Improper transfer of information from one form to another.
- Failure of welder identification numbers to correspond with those listed on forms.

Mr. Rives said the utility reached an agreement last summer with the Nuclear Regulatory Commission to weld and reinspect all the welds in question. He estimated the work will cost a little more than \$200,000 and will take about 9,000 man-hours, the equivalent of a five-person crew working on the project for one year.

The rewelding and reinspecting began soon after the regulatory commission approved the utility's proposal last summer. Mr. Rives said the utility did not have an estimated completion date.

Asked to respond to the latest investigation reports, Ed Peterson, an attorney for the Kansas Corporation Commission and a member of a task force studying Wolf Creek, said the heating, ventilation and air-conditioning system "has been real trouble ... for them at this plant. I guess that this is just one good example of that. I'm not surprised to hear that."

The KCC-sponsored task force is responsible for doing a construction audit of the nuclear power plant, to de-

termine how much of the final cost is due to inflation and borrowing costs and how much is because of mismanagement and waste.

The information will be important, Mr. Peterson has said, when Kansas Gas and Electric asks for rate increases after the power plant is in operation.

Mr. Wisner said the Nuclear Regulatory Commission is not contemplating any penalties or enforcement actions against Kansas Gas and Electric. But he said he would not know until today whether the U.S. Justice Department had satisfied its interest in the investigations.

The FBI was brought into the Nuclear Regulatory Commission investigation last June to analyze handwriting. The bureau eventually confirmed that a quality control inspector's signature was forged nine times, but no one was able to determine by whom.

A general foreman for Daniel Construction had admitted that he once practiced the inspector's signature, but he denied forging any documents.

That foreman, who has remained anonymous, resigned from the Wolf Creek project soon after the Nuclear Regulatory Commission began its investigation.

In fact, Mr. Rives said, "Virtually everyone that we know of (involved in the investigation) is gone." He estimated that about a dozen have since left.

Asked whether Kansas Gas and Electric plans any legal action against those employees or Daniel Construction to recover the more than \$200,000 in costs, Mr. Rives replied, "That's not resolved yet."

Daniel Construction is a subsidiary of the Daniel International Corp., based in Greenville, S.C.

# Wolf Creek Construction Boss Fired Over Safety Violation

By MICHAEL GINSBERG  
Staff Writer

A construction foreman at the Wolf Creek Nuclear Generating Station near Burlington has been fired for violating construction safety procedures, a Kansas Gas and Electric Co. official said Wednesday.

The foreman was fired "two or three weeks ago" for directing workers to install an unapproved pipe hanger and stamping a false identification number on the hanger, KG&E Vice President Bob Rives said.

Although the foreman violated Nuclear Regulatory Commission safety procedures, his actions didn't cause any danger, Rives said.

"It (the pipe hanger) had not been installed," Rives said. "Had it been installed, it probably wouldn't have created any danger."

**RIVES REFUSED** to release the name of the foreman, who worked for Daniel Construction Co., a Greenville, S.C., firm that is building the \$1.7 billion plant.

Another employee discovered the violations and reported them to Daniel. An NRC spokesman said the em-

ployee also notified the NRC, which is investigating the matter.

The NRC report will be released to the public in about four weeks, NRC spokesman Clyde Wisner said.

The fact that the pipe hanger was designated for a safety-related function in the plant indicates safety violations could have been dangerous, Wisner said.

"If it's a support, it has to be clearly designed to meet certain specifications," he said. "You can't take an old piece of metal and say it meets the requirements."

**"IF ANYTHING** happened to it, the safety of the project would be affected."

Daniel is investigating to determine whether the foreman used unauthorized materials in any other plant work or falsified any other identification numbers, Rives said.

"We have done considerable investigation of work in progress, which makes us feel it was isolated," he said.

The hanger holds up pipes that carry radioactive materials, Rives

said. But he said he didn't know the exact nature of the materials.

"What we do know is that it was in a system classified as a safety system," he said. "That's why the specifications are strict."

Rives said he didn't know why the foreman used unapproved materials, but he assumed the foreman was simply cutting corners.

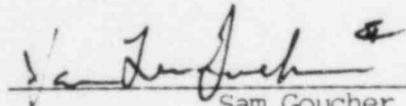
"As far as I know, it was a matter of expediency," he said.

Release of information about the safety violations was withheld from the public until KG&E's preliminary investigation was completed, Rives said.

STATEMENT OF SAM GOUCHER

I have read the statements attributed to me in the Petition for Leave to Intervene and Request for Hearing filed by the Nuclear Awareness Network with the NRC, and state the following:

1. I was contacted by Mary Stephens and invited to discuss cost over-run issues at the Wolf Creek project. I did not initiate communication with her or the Nuclear Awareness Network.
2. My work at the Wolf Creek project was on HVAC systems and the first-hand knowledge I have on quality concerns is limited to the East Diesel Generator Building.
3. The statements I made on weld control documentation involved a single traveler (VMOH5211Q). The weld control documents contained in the traveler were altered by the application of post-signatures and dating entries. The supervisors obtaining the area inspectors acceptance of the incomplete documentation were the craft welder foreman responsible for the Traveler throughout construction. Quality Control supervision was not involved.
4. As a result of my own review of the correcting documentation with KG&E Quality Assurance personnel on January 30, 1984, I have concluded that appropriate corrective actions have been taken with respect to HVAC welds in that building.

  
\_\_\_\_\_  
Sam Goucher

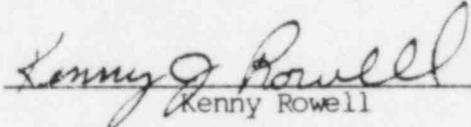
January 30, 1984

  
\_\_\_\_\_  
Witness

STATEMENT OF KENNY ROWELL

I have read the statements attributed to me in the Petition for Leave to Intervene and Request for Hearing filed by the Nuclear Awareness Network with the NRC, and state the following:

1. I was contacted by Mary Stephens and invited to discuss cost overrun issues at the Wolf Creek project. I did not initiate communication with her or the Nuclear Awareness Network.
2. My work at the Wolf Creek project was on HVAC systems and the first-hand information I have on quality concerns is limited to HVAC systems.
3. Since being contacted by Mary Stephens, KG&E Quality Assurance personnel have shown me the documentation of the investigation of the concerns that I reported to Daniel, KG&E Quality Assurance, and the NRC in October, 1983. I also made an inspection of the plant on January 29, 1984, and confirmed that my concerns are being addressed satisfactorily. While not all corrective actions have been completed yet, I have no present safety concerns at Wolf Creek.

  
Kenny Rowell

January 29, 1984

  
Witness

STATEMENT OF VINCE LEY

I have read the statements attributed to me in the Petition for Leave to Intervene and Request for Hearing filed by the Nuclear Awareness Network with the NRC, and state the following:

1. I was contacted by Mary Stephens and invited to discuss cost overrun issues at the Wolf Creek project. I did not initiate a communication with her or the Nuclear Awareness Network.
2. My work at the Wolf Creek project was on HVAC systems, and any first-hand information I have on quality concerns is limited to HVAC systems.
3. I did not keep a handwritten list of safety related QC problems regarding weld documentation for a year and a half. Rather, it was approximately a year and a half ago, in June, 1982, that I prepared the list.
4. I did not state that my list had been thrown in the trash by Daniel supervisors, and I do not know that to be the case. In fact, on January 30, 1984, KG&E Quality Assurance personnel showed me the original of my list, which obviously has not been discarded.
5. As a result of information I knew at the time I worked at Wolf Creek, as well as information recently provided to me by KG&E QA personnel, I know that the concerns identified on my list are being addressed satisfactorily at Wolf Creek. While not all corrective actions have been completed yet, I have no present safety concerns at Wolf Creek.
6. With respect to my co-worker who was threatened with bodily harm by a foreman, I am aware that the foreman was terminated because of the incident. I consider that to be an appropriate corrective action.

Vince Ley  
Vince Ley

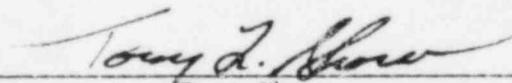
January 30, 1984

William J. Rudolph  
Witness

STATEMENT OF TONY SHOES

I have read the statements attributed to me in the Petition for Leave to Intervene and Request for Hearing filed by the Nuclear Awareness Network with the NRC, and state the following:

1. I was contacted by Mary Stephens and invited to discuss cost overrun issues at the Wolf Creek project. I did not initiate communication with her or the Nuclear Awareness Network.
2. My work at the Wolf Creek project was on HVAC systems and the first-hand information I have on quality concerns is limited to HVAC systems.
3. I did not use the word "repeatedly" in stating that I had been ordered to perform safety-related work without Quality Control approval. The instance I related was removing and replacing concrete anchor bolts without Quality Control inspection. This occurred with expansion anchor bolts with one plenum at Auxiliary Building elevation 2047 feet. I provided this information to Daniel supervisors in July, 1982.
4. Since being contacted by Mary Stephens, KG&E Quality Assurance personnel have shown me the documentation of the investigation of the concerns I reported to Daniel. I am satisfied with the corrective action taken, and have no present safety concerns with Wolf Creek. I confirmed this during an inspection of the plant on January 28, 1984.
5. I did not state that my supervisors threw Vince Ley's list of the QC problems in the trash, and I do not know that to be the case. In fact, on January 28, 1984, KG&E Quality Assurance personnel showed me the original of Vince Ley's list, which obviously has not been discarded.
6. I am told that Ernest Larrick has stated that he heard from me that supervisors painted regular bolts green so that they would pass as O bolts. I do not know why or how Mr. Larrick got this impression since it is not true and I do not recall saying it.

  
 \_\_\_\_\_  
 Tony Shores

January 28, 1984

  
 \_\_\_\_\_  
 Witness