KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

December 10, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

KMLNRC 84-225
Re: Docket No. STN 50-482
Ref: 1) Letter KMLNRC 83-051 dated April 29, 1983
from GLKoester, KG&E, to HRDenton, NRC
2) Letter KMLNRC 83-148 dated November 21, 1983
from GLKoester, KG&E, to HRDenton, NRC
Subj: Additional information for the Review of the
Wolf Creek Emergency Plan

Dear Mr. Denton:

The two References provided information concerning personnel response capability during emergency situations at Wolf Creek.

Discussions with your staff revealed changes to question B.4 were necessary to more fully explain the staffing goals of KG&E as they relate to NUREG-0737, Supplement No. 1. The information contained in this letter combines and supersedes the information contained in the two Referenced letters. Attached also is the response to a verbal question by your staff concerning the coordination of protective action recommendations between KG&E, Coffey County and the State of Kansas.

The attached will be reflected in the next revision of the Wolf Creek Emergency Plan.

Yours very truly,

Glenn L. Koester

GLK:bb
Attach
xc:PO'Connor (2), w/a
HBundy, w/a

A003
1/1

201 N. Market — Wichita, Kansas — Mail Address: P.O. Box 208 / Wichita, Kansas 67201 — Telephone: Area Code (316) 261-6451

OATH OF AFFIRMATION

STATE OF KANSAS)
) SS:
COUNTY OF SEDGWICK)

I, Glenn L. Koester, of lawful age, being duly sworn upon oath, do depose, state and affirm that I am Vice President - Nuclear of Kansas Gas and Electric Company, Wichita, Kansas, that I have signed the foregoing letter of transmittal, know the contents thereof, and that all statements contained therein are true.

KANSAS GAS AND ELECTRIC COMPANY

ATTEST:

By Glenn L. Koester
Glenn L. Koester
Vice President - Nuclear

E.D. Prothro, Assistant Secretary

STATE OF KANSAS)
) SS:
COUNTY OF SEDGWICK)

BE IT REMEMBERED that on this 10th day of December, 1984, before me, Evelyn L. Fry, a Notary, personally appeared Glenn L. Koester, Vice President - Nuclear 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 the date and year above written.

EVELYN L. FRY NOTARY PUBLIC STATE OF KANSAS

Evelyn L. Fry
Evelyn L. Fry, Notary

My Commission expires on August 15, 1985.

Q.B.4 The minimum staffing requirements, found in Table 1.1-1 of the plan, should either conform to Table B-1 of NUREG-0654 or provide alternative means of performing the required functions in a timely manner (B.5).

R.B.4 The question was directed to conformance to Table B-1 of NUREG-0654. NUREG-0737 Supplement 1 Table 2 has since superceded the NUREG-0654 guidance and this response is directed towards conformance to NUREG-0737.

In making this response, it is our understanding that NUREG-0737 is to be used as a goal and is not to be considered as providing inflexible criteria. KG&E believes that such a policy is particularly important in the area of emergency response management where plant location, design and organizational variations have a significant impact on the planning required. KG&E summarizes below the influences that location, design, staffing philosophy and communications have on personnel requirements needed to assure safe and reliable operations under all expected conditions.

LOCATION

A nuclear power plant, although usually "remote" in location with respect to population densities, should be as accessible as possible for personnel response. WCGS is in a uniquely rural, low population density area (13 persons per square mile within 10 miles of the plant). The largest city within 50 miles is Emporia with a 1978 population of 26,000. Ottawa is the next largest with 11,000 population in 1978. The majority of the incorporated places within 50 miles have less than 1,000 people. The road miles to Emporia and Ottawa from Wolf Creek are about 40 and 46 miles, respectively. Within 5 miles of the site US Highway 75 intercepts the paved site access road. Highway 75 intersects with Interstate 35 at Beto Junction about 13 miles north of the site. WCGS is located in essentially flat farm country with a grid of county roads bordering each square mile.

Severe winter weather could impact plant staff augmentation response times because of the plant's rural location. To overcome this winter storm aspect, Wolf Creek staff will closely follow weather conditions and when severe weather threatens will hold extra personnel at the station. With the personnel flexibility used in staffing and training, this will compensate for time access problems that might be experienced by augmentation personnel under severe weather conditions.

DESIGN

WCGS is a one-unit Westinghouse Standardized Nuclear Unit Power Plant System (SNUPPS) pressurized water reactor located near Burlington, Kansas.

The Control Room is designed to be habitable under emergency conditions and contains the control, instruments and communications equipment necessary for operation of the plant under both normal and emergency conditions. The Technical Support Center (TSC) is located approximately 2 minutes and 15 seconds walking time from the Control Room. This location is sufficiently close to permit face-to-face interaction between the Control Room personnel and the Duty Emergency Director when required.

STAFFING

KG&E has been involved in the staffing of WCGS since 1973. Staffing for WCGS has been based on the following:

1. The quality of personnel has been a primary objective of the Wolf Creek recruitment effort and the plant staff has been carefully selected by use of oral and written examinations. This has fostered the development of a capable, well-trained staff whose efficiency is dependent upon their compactness. An emergency situation capitalizes upon this characteristic as it has been demonstrated that small, closely coordinated teams are more responsive than large groups of people. Across the board, numbers of personnel and specific arrival times may be an acceptable model for providing general guidance, however it is felt that use of fewer personnel, appropriately trained and given the necessary authority to act represents an alternative which is just as valid and more efficient.

2. Nuclear plant supervisors are technically and physically skilled in the work they supervise. All WCGS Section Supervisors and supporting supervisors are skilled people who, in many cases, are more craft skilled than the craftsmen they supervise. These Section Supervisors and supporting supervisors have had extensive "hands on" experience and keep current by continuous and direct operational involvement.

3. A rigorous Call Superintendent system is instituted at WCGS. The Call Superintendent is available by multiple means of communication. Two thirds of these individuals live within 30 minutes of the plant and all within 60 minutes. This proven system, such as that in use at the Point Beach Nuclear Plant, has been used successfully to provide backshift supervisors with access to more senior personnel should the need arise for consultation. The Call Superintendent is then available to become the DED. Table Q.B.4-1 lists the responsibilities of the Call Superintendent.

4. Key technical and operational support departments of a nuclear power plant should have a duty roster to maintain a senior person of that speciality for consultation and call out. The WCGS Maintenance, Chemistry, Health Physics and Instrument and Control Groups, all have rigorous duty rosters. The duty person is committed to immediate telephone availability and/or carries a telephone pager and is required to arrive at the plant within thirty or sixty minutes.

5. Motivation of nuclear power plant personnel should be kept at a high level. Keeping the motivation of shift-assigned personnel at a high level is a difficult challenge, and particularly so if shift personnel do not have meaningful work assignments. Therefore, WCGS has optomized the number of shift workers, and made their shift work variable and comprehensive by multiple function duties. For instance, each Nuclear Station Operator is trained and qualifed for watch standing at all Nuclear Station Operator stations and in addition is trained and qualified to perform certain chemical analysis work, normal and emergency health physics work, minor mechanical and electrical maintenance, and radwaste processing and packaging. Other examples of flexible use of shift personnel are that the Duty Shift Supervisor and Supervising Operator change some assignments and Reactor Operators "work down" routinely as Nuclear Station Operators.

7. The Shift Supervisor should not have excessive administrative duties. KG&E's shift complement was reviewed by the NRC's Management Structure and Technical Resources Review Team in January 1982 to the Table B-1 requirements. KG&E committed in letter KMLNRC 82-165 (dated 2/25/82) to a 10-man shift complement to document commitments made verbally to the Review Team. The Team was made up of individuals from NRR and Region IV.

COMMUNICATIONS AND AUGMENTATION

Nuclear power plant communications should be reliable, simple and automated when possible. Wolf Creek has more than four dozen outside telephone trunk lines, eight intercompany lines, intra-plant voice lines which include over 250 telephone extensions, intra-plant radios on two channels, and an area radio system of portable and auto-mounted radios covering all of the effective EPZ which includes Coffey County. A rapid alert Notification System for the purpose of an automated and immediate notification of key and support emergency personnel has been procurred and is in the process of being programmed. The NRC Emergency Notification System plus our radio backups to the County Sheriff and State provides communications capability for the alerting of regulatory agencies and the community in a most straight-forward manner and without requiring extensive effort.

The WCGS Call Superintendent is provided with a Call Superintendent radio equipped vehicle during the period of time he has the duty. This allows him to maintain contact with WCGS during call ins back to the plant. Additionally, the Call Superintendent carries a voice-tone pager.

Attached is a list showing home locations of key plant personnel who might be needed for augmentation (Table Q.B.4-2). The general proximity of homes to the plant site is, we believe, an important factor.

NUREG-0737 SUPPLEMENT 1 TABLE 2 COMPARISON

Table Q.B.4-3 summarizes how each major functional area of NUREG-0737 Supplement 1 Table 2 will be implemented at WCGS. Attachment 1, "Augmentation" shows the NUREG-0737 suggested 30 minute capability by major functional area, and those numbers of

trained WCGS personnel who live within 30 minutes of the site. The 30 minute "goal" for augmentation is to cover the six suggested functional areas with eleven trained personnel as shown in Attachment 1. KG&E will attempt to notify all those trained personnel living within 30 minutes of the site in an effort to meet the 30 minute "goal." Recognizing that vacations, illness, business travel, and personnel already on shift are factors that influence meeting this "goal," KG&E's commitment is that at 60 minutes WCGS will have those functional areas staffed as shown in Table 1.1-1 of the WCGS Radiological Emergency Response Plan, "Minimum Staffing Requirements for WCGS For Nuclear Power Plant Emergencies," shown here as Attachment 2.

SUMMARY

Manpower additions of 11 and 15 personnel are recommended in NUREG-0737 to be accomplished in 30 and 60 minutes, respectively, after emergencies are classified. KG&E's commitment in the Emergency Plan is to provide a total of 25 personnel within one hour and another five within 90 minutes.

Prior to Emergency Operations Facility (EOF) activation, the functions of the EOF are performed by the TSC. Notification and initial mobilization of EOF personnel occurs at the Alert classification, with DEM arrival and EOF activation required 90 minutes post-classification of a Site Area Emergency. Four key members of the DEM's staff are also required at 90 minutes. Those four include the Technical Resources Manager (TRM), Radiological Assessment Manager (RAM), Radiological Assessment Supervisor (RAS), and the EOF Coordinator (EOFC). Attachment 3, "Augmentation at 90 Minutes," shows the number of trained personnel for each of these positions, and how many can arrive within 60 and 90 minutes. Personnel trained to fill the DEM and these four key positions at the EOF will rotate being "on-call" and will carry on his person a radiotelephone "beeper" receiver if temporarily out of direct phone contact. In addition, an attempt to notify all those personnel trained for emergency roles who are not on-call at a particular time will be made. Thus, the closest person to the site arriving first will assume the emergency role until relieved by a more senior person. More personnel will be trained to fill these positions.

It is emphasized that KG&E believes that a competent shift organization, backed up with ready communications with senior plant staff at all times plus the capability for expeditious call-in of additional personnel provides adequate assurance that WCGS will be operated in a manner which protects the public health and safety.

TABLE Q.B.4-1 (Sheet 1 of 3)

CALL SUPERINTENDENT'S RESPONSIBILITIES

1.0 PURPOSE

1.1 A Call Superintendent will be on call at all times to assist and counsel the Duty Shift Supervisor in the event of abnormal occurrences. The Call Superintendent group consists of, but is not limited to, the Plant Manager, WCGS; Plant Support Superintendent, WCGS; Operations Superintendent, WCGS; Technical Support Superintendent, WCGS; and Maintenance Superintendent, WCGS. The Plant Manager may assign additional members as Call Superintendents if they are determined to be qualified by the Plant Manager.

2.0 QUALIFICATIONS

2.1 Call Superintendents are qualified by their past management experience or by having and maintaining an active Senior Reactor Operator (SRO) license for Wolf Creek Generating Station.

3.0 DUTIES

3.1 A Call Superintendent will normally be assigned the duty on a weekly basis. A schedule of the week-by-week Call Superintendent assignments will be distributed to each Call Superintendent and to the Control Room for the Shift Supervisor's reference.

3.2 The Duty Shift Supervisor will contact and communicate with a Call Superintendent:

3.2.1 Before taking other than the immediate required actions to place or maintain the plant in a safe condition in the event of a reportable occurrence.

3.2.2 Prior to deviating from any approved major procedure pertaining to nuclear safety.

3.2.3 During any condition(s) which may require the use of an Emergency Operating Procedure.

3.2.4 At any time the station is placed in a Technical Specification Limiting Condition of Operation (LCO) action statement.

3.2.5 Any time the station's capability to produce electrical power is jeopardized including any forced reductions in power.

3.2.6 In the event of any off-hour regulatory inspection by such groups as the USNRC, OSHA, State, etc.

3.2.7 In the event of any personal injury, contaminated or non-contamined, requiring offsite medical aid.

3.2.8 If any personal or group matters occur which cannot be solved by the particular supervision and they affect the station operation.

NOTE: The Duty Shift Supervisor will normally contact the responsible Call Superintendent for the area of concern (i.e., the Operations Superintendent for operational matters, Maintenance Superintendent for maintenance matters, etc.). If the normally responsible Superintendent is unavailable, or if the situation demands immediate response such as implementation of the Emergency Plan or the Fire Protection Plan, the Call Superintendent who has the duty will be contacted.

3.3 The Call Superintendent will review the circumstances, analyze the cause, make the determination and provide approval for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.

3.4 The Call Superintendent will provide counsel, call-out backup, and advice to the Shift Supervisor as needed.

3.5 In the event of any condition requiring the implementation of the WCGS Radiological Emergency Plan and implementing procedures, the Call Superintendent will proceed as directed by the plan and implementing procedures.

3.6 In the event of a fire at WCGS, the Call Superintendent will be notified and will proceed as directed in the Fire Protection Plan.

3.7 The Call Superintendent will keep the Plant Manager informed of any occurrence, unusual events or problems during his scheduled period.

4.0 CONDUCT

4.1 The scheduled Call Superintendent will keep the Duty Shift Supervisor informed of his whereabouts at all times or will carry on his person a radio-telephone "beeper" receiver if temporarily out of direct phone contact.

4.2 The Call Superintendent must be immediately available, by phone or radio, to the Duty Shift Supervisor for consultation and/or able to leave for the plant if required. The only exception to immediate availability is the normal driving time between his place of residence and the station.

4.3 If necessary, a substitute Call Superintendent can assume the duty for short periods of time, as long as the Control Room is notified, and the substitute is a qualified Call Superintendent.

TABLE Q.B.4-2 (Sheet 1 of 5)

COMPARISON TO NUREG-0737 SUPPLEMENT 1 TABLE 2

ON SHIFT

	MAJOR FUNCTIONAL AREA	WCGS RESPONSE
1.	Plant Operations and Assessment of Operational Aspects	On Shift: 1 Shift Supervisor (SRO) 1 Supervising Operator (SRO) 2 Reactor Operators (RO) 4 Nuclear Station Operators (NSO)
2.	Emergency Direction and Control	Duty Emergency Director (Shift Supervisor** until relieved by Plant Manager or Call Superintendent. Overall direction to be assumed by the Duty Emergency Manager when the Emergency Operations Facility is activated. Direction of plant operations remains with the Duty Emergency Director).
3.	Notification/Communication	Control Room Communicator (may be provided by shift personnel assigned to other locations)
4.	Radiological Accident Assessment and Support of Operational Accident Assessment	
	a. EOF Director	Duty Emergency Manager once EOF is activated
	b. Offsite Dose Assessment	HP personnel or qualified operators
	c. Offsite surveys, onsite (out-of-plant) Inplant surveys	HP personnel or qualified operators
	d. Chemistry/Radiochemistry	Chemistry/HP personnel or qualified operators

** At WCGS the Shift Supervisor initially assumes the responsiblities and position of DED until relieved by the Plant Manager or Call Superintendent. Additionally, Shift Supervisors and Supervising Operators are qualified to the STA level.

TABLE Q.B.4-2 (Sheet 2 of 5)

MAJOR FUNCTIONAL AREA	WCGS RESPONSE
5. Plant System Engineering, Repair and Corrective Actions	
a. Technical Support	See 2 above
b. Repair and Corrective Actions	
1. Mechanical Maintenance/ Radwaste Operator	One of on-shift NSOs can perform function until augmentation.
2. Electrical Maintenance	A licensed RO or one NSO on-shift can perform function until augmentation.
6. Protective Actions (Inplant)	
a. Access Control	HP personnel and qualified NSOs and Chemistry personnel on-shift
b. HP coverage for repair, corrective actions, search and rescue, first aid and fire fighting	
c. Personnel monitoring	
d. Dosimetry	
7. Firefighting	WCGS fire brigade is defined in the Technical Specifications.
8. Rescue Operations and First Aid	Many operating shift personnel and Security personnel are qualified in first aid and fire fighting.
9. Site Access Control and Personnel Accountability	Security Plan provides sufficient personnel as approved by the NRC.

AUGMENTATION

	MAJOR FUNCTIONAL AREA	NUREG-0737 SUGGESTED 30 MINUTE CAPABILITY	# TRAINED WITHIN 30 MINUTES OF WCGS
1.	Notification/Communications	1	4
2.	Senior Health Physics (HP) Expertise	1	2
3.	a. Offsite Surveys, onsite (out-of-plant), inplant surveys.	4	9
	b. Chemistry/Radiochemistry	0	3
4.	Technical Support	1	4
5.	Repair and Corrective Action	2	7
6.	Radiation Protection	2	5
7.	Firefighting	Local support arrangements have been made with the City of Burlington Fire Department.	
8.	Rescue Operations and First Aid	Local support for arrangements have been made with the Coffey County Ambulance Service.	
	Total	11	34

TABLE 1.1-1

MINIMUM STAFFING REQUIREMENTS FOR WCGS
FOR NUCLEAR POWER PLANT EMERGENCIES

Major Functional Area	Major Tasks	Position Title or Expertise	On Shift	Capability for Additions 1 hour	Capability for Additions 90 minutes
Plant Operations and Assessment of Operational Aspects		Shift Supervisor (SRO)	1	-	-
		Supervising Operator (SRO)	1	-	-
		Reactor Operator (RO)	2	-	-
		Nuclear Station Operator	4	-	-
Emergency Direction and Control*		Duty Emergency Director (Shift Supervisor until relieved)	1**	-	-
Notification/Communication	Notify licensee, State local and Federal personnel and maintain communication	Emergency Communicator	1**	3	-
Radiological Accident Assessment and Support of Operational Accident Assessment	Emergency Operations Facility (EOF) Director	DEM and staff	-	-	5
	Offsite Dose Assessment	Sr Health Physics (HP) Expertise	-	1	-
	Office Surveys		-	4	-
	Onsite (out-of-plant)		-	2	-
	In-plant surveys	HP Personnel	1	2	-
	Chemistry/Radio chemistry	Chem Personnel	1	1	-
Plant System Engineering, Repair and Corrective Actions	Technical Support	Shift Technical Advisor	1**	-	-
		Core/Thermal Hydraulics	-	1	-
		Electrical	-	1	-
		Mechanical	-	1	-
	Repair and Corrective Actions	Mechnical Maintenance/	1**	1	-
		Radwaste Operator	-	1	-
		Electrical Maintenance/ Instrument and Control (I&C) Technician	1**	2	-
			-	1	-
Protective Actions (In-Plant)	Radiation Protection: a. Access Control b. HP Coverage for repair, corrective actions, search and rescue first aid and firefighting c. Personnel monitoring d. Dosimetry	HP Personnel	1**	4	-
Firefighting	-	-	Fire Brigade per Technical Specifications	Local Support	
Rescue Operations and First Aid	-	-	2**	Local Support	
Site Access Control and Personnel Accountability	Security, firefighting communications, personnel accountability	Security Personnel	All per Security Plan		
		TOTAL	10	25	5

* Overall direction of facility response to be assumed by the Duty Emergency Manager when all centers are fully manned. However, minute-by-minute direction of facility operations remains with the DED.

** May be provided by shift personnel assigned to other locations.

ATTACHMENT 3 (Sheet 5 of 5)

Augmentation Within 90 Minutes

	# Trained Within 60 Minutes of WCGS	Additional # Trained Within 90 Minutes of WCGS
Duty Emergency Manager (DEM)	2	1
Technical Resources Manager (TRM)	2	1
Radiological Assessment Manager (RAM)	1	2
Radiological Assessment Supervisor (RAS)	1	0
EOF Coordinator (EOFC)	2	0

Question

KG&E was asked to explain how the protective action recommendation coordination process works for incidents at Wolf Creek.

Response

In response to an NRC question concerning protective action recommendations, KG&E, Coffey County and the State of Kansas work very closely in coordinating protective action recommendations and protective action decisions. Tables 3.0-1, 3.0-2, 3.0-3, 3.0-4 and 3.0-5 of the WCGS Radiological Emergency Response Plan are taken directly out of the State of Kansas Protective Action Guides. These guides are also found in Appendix GG of the State Disaster Emergency Plan and Appendix E to the Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power. The Duty Emergency Director, and later the Duty Emergency Manager, make protective action recommendations to the County and State based on these Protective Action Guides. The County and State then make and implement their protective action decisions based on information received from WCGS and the Protective Action Guides.

FORM 110

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

April 29, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

KMLNRC 83-051
Re: Docket No. STN 50-482
Ref: 1) Letter dated 12/6/82 from BJYoungblood, NRC, to GLKoester, KG&E
2) Letter KMLNRC 83-002 dated 1/12/83 from GLKoester, KG&E, to HRDenton, NRC
Subj: Additional Information for the Review of the Wolf Creek Emergency Plan

Dear Mr. Denton:

Reference 1) requested additional information concerning the Wolf Creek Generating Station Emergency Plan. Reference 2) provided responses to the informational requests.

Discussions with your staff had revealed that the staff felt KG&E's response to question B.4 concerning plant personnel response capability during emergency situations to be inadequate. This subject was one item of discussion during a meeting with your staff held on March 23, 1983. Attached is a revised response to question B.4 which addresses the staffing goals of NUREG-0737 Supplement 1.

The attached information will be formally incorporated into the Wolf Creek FSAR in Revision 10. The information is hereby incorporated into the Wolf Creek Generating Station, Unit No. 1, Operating License Application.

Yours very truly,

Original Signed GLENN L. KOESTER

GLK:bb
Attach

cc: JHolonich (2)
HRoberds/WSchum

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

November 21, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

KMLNRC 83-148
Re: Docket No. STN 50-482
Ref: 1) KMLNRC 83-129 dated 10/10/83 from
GLKoester, KG&E, to HRDenton, NRC
2) KMLNRC 83-136 dated 10/21/83 from
GLKoester, KG&E, to HRDenton, NRC
Subj: Wolf Creek Generating Station Emergency Plan

Dear Mr. Denton:

The Referenced letters 1) and 2) provided additional information concerning the Wolf Creek Generating Station Emergency Plan. Transmitted herewith are revisions to some of the information provided by the Referenced letters.

The revised information will be formally incorporated into the Wolf Creek Generating Station, Unit No. 1, Final Safety Analysis Report in Revision 12. This information is hereby incorporated into the Wolf Creek Generating Station, Unit No. 1, Operating License Application.

Yours very truly,

Original Signed GLENN L. KOESTER

GLK:bb
Attach

cc: JHolonich (2)
WSchum/ASmith

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