

APPENDIX

US NUCLEAR REGULATORY COMMISSION

NRC Inspection Report: 50-482/85-08 Construction Permit: CPPR 147

Docket: 50-482 Category: A2

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

Facility Name: Wolf Creek Generating Station (WCGS)

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

Inspection Conducted: January 15-31, 1985

Inspectors: *J.S. Madsen/ter* 3-11-85
W. G. Guldemon, Chief, Resident
Inspection Program, Wolf Creek Task
Force (pars. 2, 3, 4, 5, 6, 7, 8, and 9) Date

for *R. Smith* 3-11-85
H. F. Bundy, Resident Reactor Inspector,
Operations, Wolf Creek Task Force
(pars. 10 and 11) Date

J.S. Madsen/ter 3-11-85
B. L. Bartlett, Resident Reactor
Inspector, Operations, Wolf Creek Task
Force (pars. 2 and 4) Date

Approved: *J.S. Madsen/ter* 3/11/85
L. E. Martin, Chief, Wolf Creek
Task Force Date

Inspection Summary

Inspection Conducted January 15-31, 1985 (Report 50-482/85-08)

Areas Inspected: Routine, unannounced inspection including licensee actions on previous inspection findings; 10 CFR 50.55(e) reports; preoperational test results review; preoperational test deficiency deferrals; IE Bulletins and Circulars followup; independent inspection; surveillance program; procedure

review; conduct of operations; and event reports. The inspection involved 222 inspector-hours onsite including 27 inspector-hours onsite during offshifts.

Results: Within the ten areas inspected, no violations or deviations were identified. Ten open items were identified in (paragraphs 2, 4, 5, 7, and 8).

DETAILS

1. Persons Contacted

Principal Licensee Personnel

- *C. C. Mason, Director-Nuclear Operations
- *G. L. Koester, Vice President-Nuclear
- *H. K. Chernoff, Licensing
- *R. M. Grant, Director-Quality
- *O. L. Maynard, Licensing Supervisor
- *R. Stright, Licensing
- *W. M. Lindsay, Supervisor Quality Systems
- *S. Hatch, Training
- *L. Runnels, Independent Safety Engineering Group
- *R. Flannigan, Kansas City Power and Light Site Representative
- *F. T. Rhodes, Plant Superintendent
- *M. G. Williams, Supt. of Regulatory Quality Administration
- *K. Peterson, Licensing
- *F. D. McLaurin, Assistant Startup Manager
- J. Zell, Operations Superintendent

NRC Personnel

- *W. G. Guldemon, Chief, Resident Inspection Program
- *H. F. Bundy, Resident Inspector
- *B. L. Bartlett, Resident Inspector

The NRC inspectors also contacted other member of the licensee's staff during the inspection period to discuss identified issues.

*Denotes those personnel in attendance at the exit meeting on January 31, 1985.

2. Licensee Actions on Previous Inspection Findings

(Closed) Safety Evaluation Report (SER) Item (50-482/84-00-114): This item tracked resolution of the allowable period for containment minipurge system operation. This issue has been resolved as discussed in Supplement 5 to the Wolf Creek SER by imposing a limit of 2000 hours per year.

(Closed) SER Item (50-482/84-00-83): This item tracked resolution of staff concerns on the independence of the electrical load sequencers. As discussed in Supplement 5 to the Wolf Creek SER, the licensee provided additional information which resolves the staff's concerns.

(Closed) SER Item (50-482/84-00-122): This item tracked an SER requirement for the licensee to install safety-related auxiliary feedwater flow indication on the remote shutdown panel. Based on a review of the Drawing M02 AL01 and the licensee's Q list dated April 25, 1984, and observation of installed indicators, the NRC inspector concluded that this requirement had been satisfied.

(Closed) SER Item (50-482/84-00-91): This item tracked an SER requirement for the licensee to implement a surveillance program for safety-related cables inside containment to detect evidence of insulation degradation. In letter SLNRC 84-0021, dated February 2, 1984, the licensee committed to such a program. In letter SLSAR 84-0092, dated December 26, 1984, the Standardized Nuclear Unit Power Plant System (SNUPPS) organization proposed a program to the licensee consisting of visual inspection of representative cables inside containment. The cables chosen for inspection envelop the types of cables employed. The inspection locations are generally restrictive in terms of environmental conditions and thus approximate "worst case" conditions. The program is to commence prior to commercial operation at Wolf Creek and continue on a 5-year frequency.

The licensee's commitment to a surveillance program and the type of program proposed by SNUPPS are responsive to the SER item. Implementation of this program will be verified prior to startup following the first refueling outage. (50-482/8508-01)

(Closed) SER Item (50-482/84-00-14): This SER item required the licensee to install fire protection on certain cable tray supports equivalent to that installed on the associated cable tray. By letter dated January 13, 1985, from Mr. J. M. Harvey, Daniel International Corporation project manager, to Mr. G. L. Fouts, Wolf Creek construction manager, all cable tray supports requiring wrapping pursuant to 10 CFR 50.48 and Appendix R requirement have been wrapped.

(Closed) SER Item (50-482/84-00-99): This item tracked an SER requirement to either seal the wire entrance cavity on Limatorque SMB-000 operators installed in containment or demonstrate satisfactory unsealed performance. By letter SLNRC, dated November 23, 1983, SNUPPS informed the NRC and supplied supportive vendor information that the subject Limatorque operator wire entrance cavities were unsealed when satisfactory qualification testing was completed.

(Closed) SER Items (50-482/84-00-96 and 97): These items tracked SER requirements for the licensee to review/upgrade their environmental qualification documentation in response to NRC comments and to submit a description of the approach used to assure all equipment items were installed in a manner which did not invalidate their qualification.

Satisfactory responses to both items are contained in letter SLNRC 83-0061, dated November 23, 1983, from SNUPPS to the NRC.

(Closed) SER Item (50-482/84-00-24): This item tracked a commitment on the part of the licensee to obtain additional training in nuclear codes and standards for the maintenance supervisor (now titled the superintendent of maintenance) prior to fuel loading. Because of the title change plus the addition of "maintenance supervisors" to the Wolf Creek maintenance staff, the current maintenance services supervisor and the maintenance support supervisor received the committed-to training. The licensee informed the NRC of this oversight in letter KMLNRC 85-017, dated January 14, 1985, and committed to have the superintendent of maintenance receive the codes and standards training in June 1985. Based on the training received by the maintenance supervisors and the commitment to provide training to the superintendent of maintenance in June 1985, this requirement is considered satisfactorily resolved on an interim basis. Completion of training for the superintendent of maintenance in June 1985, will be tracked as an open item. (50-482/8508-02)

(Closed) SER Item (50-482/84-00-10): This item tracked a licensee commitments to perform online fuel failure monitoring using the chemical and volume control system (CVCS) letdown process radiation monitor (PRM) and the post irradiation surveillance of fuel elements. The licensee, by letter KMLNRC 84-214, dated December 12, 1984, requested NRC approval to defer completion of testing of certain PRMs, including the CVCS PRM, until after fuel load but before initial criticality. For purposes of this item, online fuel monitoring would not be required until initial criticality is attained. Receipt of NRC approval is being tracked by a separate open item.

With respect to post irradiation surveillance, the licensee has in place an approved Procedure FHP 04-001. The inspector reviewed this procedure and found it acceptable for the purposes of this item.

(Closed) Violation (50-482/8427-02): This violation documented a failure on the part of the licensee to perform testing in accordance with Preoperational Test Procedure SU3-AL02, Revision 0. The licensee's written response to this item addressed the system startup engineer's (SSE) actions in not following procedural requirements. In addition, the licensee's written response to the enforcement conference held on December 4, 1984, addressed the NRC inspector's concern of the SSE not being wholly knowledgeable of his test or his system. However, neither of these written responses addressed the inspector concerns on the lack of communications between operations, the SSE, and the reactor operator in failing to maintain absolute control of equipment. In a meeting held to discuss the licensee's written response to this violation, the licensee submitted additional information on these concerns. The

licensee stated that operations personnel had been reinstructed to ensure they were aware that they were fully responsible for the operation of plant equipment, and that pertinent information should be passed on to SSEs and affected plant personnel. Inspections have determined that the problems noted in this violation have been corrected.

(Closed) Open Item (50-482/8427-05): This item tracked licensee actions in response to inspector concerns over the timeliness of operator training on completed plant/system modifications. On January 17, 1985, the licensee issued Revision 5 to Administrative Procedure ADM 02-103, "Required Reading," which specified that items deemed essential for proper plant operation will be read by the oncoming shift prior to shift turnover. Design changes are specified as an essential item. This resolves the inspector's concerns in this area.

(Closed) Open Item (50-482/8449-03): This item tracked licensee retest of the capability to pressurize the control room. The inspector reviewed portions of a completed retest of SU3-GK01 which included data demonstrating capability to maintain control room pressure between .26 and .33 inches of water. The acceptance criterion was greater than or equal to .25 inches of water.

(Closed) Open Item (50-482/8430-03): This open item tracked inspector concerns relative to administrative control of certain switches which would isolate breaker control functions from the control room. The licensee has added a requirement to daily verify these switches to Procedure ADM 02-030, "Reading Sheets and Shift Rounds Instruction." This resolves the NRC inspector's concerns.

(Closed) SER Item (50-482/84-00-12f): This item tracked installation of a battery discharge alarm on the plant computer. The inspector verified this item to be complete by reviewing computer print information sheets and having the reactor operator call the alarm point up on the plant computer.

(Closed) SER Item (50-482/84-00-09): This item tracked licensee verification that fuel performance will satisfy the reload cladding collapse analysis bounds. This verification is not applicable to initial fuel loading and will be performed as part of the routine refueling core analysis.

(Closed) Open Item (50-482/8455-07): This item tracked NRR approval of a licensee request to defer completion of the reactor coolant system resistance temperature detector (RTD)/core exit thermocouple cross calibration test until after fuel load but prior to initial criticality due to RTD calibration problems encountered during hot functional testing. The RTDs have been replaced. NRR verbal approval has been

granted. The Wolf Creek license will be conditioned to require the subject test to be completed prior to initial criticality.

Based on discussions with the Office of Nuclear Regulation, the licensee has provided sufficient information on the following SER open items to allow a positive finding. These items are considered closed:

- 84-00-46 - Prior to exceeding 5 percent power, demonstrate the applicability of procedures and instrumentation in the postaccident water chemistry and radiation environment.
- 84-00-65 - Surveillance of control rods.
- 84-00-86 - Address compliance with Regulatory Guide 1.97 for Category 1 and 2 instruments supplied from nonclass 1E power supplies.
- 84-00-87 - Staff review of justification for exclusion of certain NUREG 0737 items from Regulatory Guide 1.97 requirements.
- 84-00-94 - Resolution of outstanding issues on Rockbestos cable qualification.
- 84-00-98 - Demonstrate the excluding of pre-aging from the qualification program does not invalidate qualification status.
- 84-00-100 - Submission of qualification information on Marathon 1600 series technical blocks.
- 84-00-135 - Qualification of relief and safety valve block valves.

No violations or deviations were identified.

3. 10 CFR 50.55(e) Reports

(Closed) Diesel Turbocharger (TE53564-K138): This report documented a failure of the left bank turbocharger on the "B" emergency diesel generator (D/G). Disassembly and inspection, performed in the presence of the vendor, identified the cause of the failure to be a loose lock nut on the impeller of the turbocharger lube oil pump. The loose nut apparently allowed the impeller to "slip" with a loss of lubrication to the turbocharger bearings. The pump was installed on site.

In response to this failure, the licensee replaced the damaged turbocharger and performed inspections of the other "B" D/G and both "A" D/G turbochargers. This work was performed in the presence of the vendor. No deficiencies were noted. The NRC inspector reviewed the inspection and repair documentation and found it acceptable to allow closure of this item. In addition, it should be noted that both the "A" and "B" D/Gs have been run numerous times since this event without similar failure.

(Closed) Limitorque Operators (TE53564-K121): This report documented damage to Limitorque operators due to accumulation of water in the electrical portion of the operator. In response to this problem, the

licensee performed an inspection of all Limitorque operators inside containment. "T-drains" were added to the low points on those operators whose originally installed drains were not located at the low point. In addition, seals were added to the inside of the flexible conduit going to the valve. The actions adequately address the identified problem. The NRC inspector verified completion of these actions by review of the completed construction work permits associated with the work.

(Closed) ASME Hangers and Component Supports (TE53564-K158): This report documented deficiencies in certain pipe hangers which resulted from the activities of insulating contractors. In response to these deficiencies, the licensee had the contractors revise their procedures to preclude occurrence, the contractors trained all personnel in the revised procedures, and the licensee performed a MIL-STD sampling reinspection of all potentially affected hangers. All identified deficiencies were recorded on nonconformance reports (NCRs) and subsequently dispositioned by the architect/engineer (A/E). The NRC verified completion of the above actions by review of the revised procedures and training records, review of the sample sizes selected, review of the NCRs generated and their disposition, and confirmation that the dispositions were implemented as required.

No violations or deviations were identified.

4. Preoperational Test Procedure/Results Review

The NRC inspector reviewed the completed package for preoperation test retest SU3-EC02/0, Revision 2. The test was performed to demonstrate the antisiphon feature in the fuel pool skimmer line. This review was performed to assess the technical validity of the test procedure, the degree of conformance to administrative requirements, the acceptability of the results obtained, and the effectiveness of the review process. The following observations were made:

- a. One test discrepancy and test discrepancy report (TDR) was written against the test package as a result of licensee review comments. This was not reflected in the results review checklist. This deficiency was not identified by the joint test group (JTG) during their review of the completed package.
- b. The test procedure called for operating the skimmer pump until a specified decrease in pump suction pressure was obtained. This decrease in pressure was the acceptance criteria for the test. The inspector does not consider this acceptance criteria to be a valid demonstration of antisiphon capabilities. This is based on the following factors:

- Siphon conditions can occur without the skimmer pump running.
- Pump suction pressure is a function of a combination of factors including static head and pressure drop in the pump suction piping. This latter factor is a function of pumped flow which is greater than siphon flow. Just because pump suction pressure dropped and the pump cavitated is no assurance that siphoning would not occur.

These comments were resolved by the test engineer (TE) as follows:

- a. The results review checklist would be revised to reflect the TDR.
- b. After stopping the skimmer pump when suction pressure decreased, the TE performed a visual inspection of suction piping. He noted through the antisiphon device, which is a 3/4-inch hole in the top of the suction pipe, that the pipe contained an air pocket. This observation was made under conditions for which the antisiphon device was designed to prevent siphoning. The presence of the air pocket is positive evidence that siphoning would not occur. The TE agreed to document his observations in the test chronological log.

While the above actions resolve inspector comments on this particular test, they do not resolve inspector concerns relative to weaknesses in the JTG review which approved the test package. These concerns were expressed to the site director on January 13, 1985, and will be the subject of continuing review.

The NRC inspector reviewed the completed test package for preoperational test SU3-0009, "Compressed Gas Accumulator Test." The test was performed to demonstrate the ability of the compressed gas accumulators to cycle the auxiliary feedwater control valves and main steam atmospheric relief valves (PORVs) for an 8-hour period with the accumulators isolated and to demonstrate the ability of the feedwater control valves compressed gas accumulator to operate the valves for a 4-hour isolation period. This review was conducted to assess the technical validity of the test procedure, the degree of conformance to administrative requirements, the acceptability of the results obtained, and the effectiveness of the review process. The following observations were made:

- a. Several minor administrative errors were noted and corrected when pointed out by the NRC inspector.
- b. Following a period of test suspension, the test was restarted without reverifying all prerequisites. This was documented with a brief entry in the test chronological log but no explanation was provided as to why certain prerequisites did not require reverification. This was reviewed with the licensee and it was determined that those prerequisites not reverified did not adversely

impact continuation of the test. The licensee did agree to make more complete entries on this subject in future tests.

- c. The valve cycles to demonstrate accumulator capacity were performed without flow through the valves. The inspector questioned the validity of the results so obtained. In discussion with the licensee, it was determined that flow would aid the operation of the PORVs and the feedwater control valves; however, flow would impede the operation of the auxiliary feedwater control valves and as such lead to nonconservative results. This issue was still under evaluation by the licensee at the close of the inspection period. Resolution will be tracked as an open item which must be closed prior to fuel load. (50-482/8508-03)
- d. The test as performed did not explicitly satisfy the 8- and 4 hour isolation requirements in that the subject valves were cycled a prescribed number of times assuming a given time interval between cycles; however, the time interval was not required by procedure nor was it complied with. This issue was resolved by requesting the licensee to project the accumulator pressures at the end of the 8- and 4-hour time period, as appropriate, assuming all pressure losses were due to leakage. From this pressure the observed pressure losses due to valve cycling was subtracted and the resultant pressure was compared to the minimum pressure necessary to successfully cycle the valves as measured elsewhere in the procedure. This yielded acceptable results in all cases except one. The licensee is conducting a retest of the unacceptable portion. Completion of this retest will be tracked as an open item which must be closed prior to fuel load. (50-482/8508-04)

As described above, the nature of the deficiencies identified during the review of this package will be the subject of continued inspection.

During this inspection the following completed preoperational test procedures and associated data were reviewed. Unless otherwise noted, they were found acceptable.

- SU3-8B14, Rev. 0
- SU3-BB06, Rev. 1
- SU3-GT01, Rev. 0
- SU3-BB15A, Rev. 0
- SU3-BB01, Rev. 1
- SU3-EP01, Rev. 3
- SU3-JE01, Rev. 1
- SU3-EC02, Rev. 2
- SU3-EF01, Rev. 2

The listed test procedures were reviewed to ensure the contents were in accordance with Regulatory Guide 1.68 and the licensee's administrative procedures. The procedures were reviewed to verify the following:

- Assure that the licensee is performing an adequate evaluation of test results.
- Assure that all test data are either within previously established acceptance criteria, or that deviations are properly dispositioned.
- Evaluate the adequacy of the licensee's methods for correcting deficiencies and for retesting if necessary.
- Evaluate the adequacy of the licensee's administrative practices in maintaining proper test discipline concerning test execution, test alternation, and test records.
- Verify that the licensee is following his procedures for review, evaluation, and acceptance of test results.

No violations or deviations were identified.

5. Preoperational Test Deficiency Deferrals

The NRC inspector reviewed the following preoperational test deficiency deferrals and determined they were acceptable based on the following criteria:

- The deferral did not constitute a deviation from a FSAR commitment.
- The deferral did not involve an unreviewed safety question as defined by 10 CFR 50.59.
- Deferral would not impose significant schedular burdens on the licensee's staff past fuel load.
 - RD #23 - Hot Machine Shop Bridge Crane
 - RD #22 - Turbine Building Crane
 - RD #19 - Cathodic Protection
 - RD #44 - Final ILRT Report
 - RD #25 - Decontamination System Thermostatic Switch
 - RD #24 - Condensate Demineralizer Water Quality
 - RD #28 - Spent Fuel Pool Leak Monitoring-Computer Point

With respect to RD #24, followup actions on the part of the licensee demonstrated that condensate water quality was satisfactory during hot functional testing. Thus, this issue was technically resolved. RD #28 involves completion of testing on the spent fuel pool leak monitoring system. Portions of this test are complete; however, the remainder must be completed prior to placing irradiated fuel in the spent fuel pool. This will be tracked as an open item. (50-482/8508-05)

6. IE Bulletins (IEB) and IE Circulars (IEC)

(Closed) IEB (82-02): This IEB documented cases of degraded threaded fasteners in the reactor coolant pressure boundary of pressurized water reactor (PWR) plants and directed certain actions to minimize this degradation. The NRC inspector reviewed licensee Procedures MPM-M713Q-01, "Pressurizer Manway and Maintenance"; MPM-M712Q-01, "Reactor Coolant Pump Seal Inspection"; MPM-M711Q-02, "Primary Manway Covers Removal/Installation"; and MGM-MOOP-08, "Torquing of Bolted Flanges" and determined that they were generally adequate and responsive to the IEB requirements with two exceptions. These exceptions were that none of the subject procedures contained provisions for threaded fastener inspections specified in Item 2 of the IEB and that the procedures lacked specificity relative to threaded fastener lubrication prior to installation. The licensee has revised the referenced procedures to incorporate fastener inspection requirements. Training on lubrication has been provided to the quality control personnel responsible for following such work.

(Closed) IEC (79-04): This IEC documented instances in which loose locking nuts were discovered on Limitorque valve operators which would allow operator/valve stem separation. This IEC recommended that licensees inspect all affected Limitorque operators for this problem and secure the locking nuts per vendor recommendation. The licensee performed the suggested inspections and found all locking nuts properly secured. The NRC inspector reviewed the documentation associated with these inspections and found it acceptable.

No violations or deviations were identified.

7. Independent Inspection

- a. On April 18, 1984, the NRC issued IE Information Notice (IEN) 84-30 documenting discrepancies in record keeping and material defects in heating, ventilating, and air conditioning (HVAC) units manufactured by Bahnson Company. The discrepancies included questionable quality inspection records, incomplete material certification records, deficient welds, and material substitutions in fasteners. Four units were identified as having been delivered to Wolf Creek. Issuance of this IEN was highlighted by a letter from the Director of the NRC's Office of Inspection and Enforcement to the licensee's Chief Executive Officer on May 29, 1984.

In response to the above noted NRC initiatives, the licensee's A/E and Bahnson performed an inspection of the units installed at Wolf Creek to determine the "as-built" condition of structural welds. The data from this inspection was provided to a Bahnson consultant, Corporate Consulting and Development Company, for evaluation. The evaluation determined that all weld stresses were within allowable values. The evaluation was reviewed and found acceptable by the A/E

as documented in a June 13, 1984, letter (Letter No. BLSE 13603) from Bechtel to SNUPPS.

An additional inspection was performed of fan and motor mounting bolts to address concerns over material substitution. This inspection revealed the following:

- The Bahnson Seismic and Environmental Qualification Report (A-249-79) was based on the use of 5/8-inch Grade 8 (equivalent to ASTM A-235, Type 1) anchor bolts. The production drawings called for 3/4-inch A-307 bolts for the fan and 1/2-inch A-307 bolts for the motor.
- A seismic analysis was performed by a Bahnson consultant assuming use of the incorrect bolts and found that the bolts were an acceptable seismic substitution. This was confirmed by Bechtel.
- Two of the Wolf Creek units have 3/4- and 1/2-inch bolts. The other two units have 3/4-inch bolts on the fan mounts and 5/8-inch bolts on the motor mounts. Material type was not assessed based on the fact that A-307 bolts are made from the lowest grade material used.

It was thus concluded that the Wolf Creek units were acceptable as installed.

The NRC inspector reviewed the information cited above and noted the following:

- Some structural welds could not be inspected due to inaccessibility.
- IEN 84-30 cited the use of self-tapping screws instead of the called for bolts and lockwasher combination.
- The subject of material traceability was not addressed.
- The subject of records retention responsibility was not addressed.

These findings were presented to the licensee for resolution. The following responses were supplied as coordinated with Bechtel:

- The highest stress calculated for the inaccessible welds was 8.7 KSI versus 21.0 KSI allowable; thus, significant margin exists.

- Self-tapping screws were used in applications designed for bolt and lockwasher use; however, seismic analysis had demonstrated that this was acceptable. This analysis was independently reviewed and accepted by Bechtel.
- A review of material traceability records confirmed that all required certified material test reports had been received, reviewed, and found acceptable.
- Engineering and quality documentation requirements were delineated in the Bechtel purchase specification. Those records required to be delivered and retained on site were confirmed to be on site.

Based on this information, this issue is considered satisfactorily resolved and IEN 84-30 is closed.

- b. NRC Inspection Report 50-482/84-56 documents the results of a special inspection performed to assess the adequacy of Wolf Creek operating phase procedures. The findings of that report fall into three categories:
- There is a lack of overall guidance on independent verification requirements.
 - Individual procedures lack independent verification requirements.
 - Miscellaneous discrepancies exist in the reviewed procedures including formatting errors and reference errors.

In response to these findings, the licensee has taken or has committed to take the following actions:

- An administrative procedure providing overall guidance on independent verification of operating phase activities, ADM 01-050, "WCGS Operational Phase Verification Program," has been issued. The inspector reviewed this procedure and found it responsive to NRC concerns in this area. The licensee was advised to exercise extreme caution in taking credit for quality assurance/control inspection points to satisfy verification requirements as the purposes and controls on these activities are different than for independent verification.
- The licensee committed to incorporate independent verification requirements into their procedures on a schedule consistent with the need for the procedures. Those procedures required for fuel loading will be revised prior to fuel loading. Those

requiring revision prior to entering the ascending operating modes will be revised prior to entering the applicable modes.

- The licensee committed to incorporate, as appropriate, the miscellaneous comments on a schedule consistent with that committed to for incorporation of independent verification requirements.
- The licensee committed to prepare a consolidated schedule prior to fuel loading identifying which procedures required revision by operating modes and identifying when those procedures would be modified.

These actions and commitments are in response to the issues identified in NRC Inspection Report 50-482/84-56. As such, it is not anticipated that the licensee will be conditioned to reflect those issues. The licensee's commitments will be tracked via an open item which is not mode restrictive. (50-482/8508-06)

Given the time frame for making the committed to procedure revisions, the inspector agreed that temporary changes were acceptable provided that the temporary changes were subsequently incorporated as permanent changes.

No violations or deviations were identified.

8. Surveillance Program

During the inspection period, the inspector reviewed the licensee's Technical Specification (TS) Surveillance Requirement/Surveillance Procedure (STS) matrix to determine if all surveillances were identified, if the assigned mode applicability and frequency was correct, and if procedures had been issued for each requirement. Based on this review the following observations were made:

- a. TS Surveillance Requirement 4.7.10.1.1.F.4 is not explicitly identified in the matrix.
- b. TS Surveillance Requirement 4.3.2.2-07 is incorrectly identified in the matrix as 4.3.2.2-06.
- c. The matrix does not specify frequencies for TS Surveillance Requirements 4.4.8 and 4.8.1.1.2.H.2.
- d. TS Surveillance Requirement 4.8.1.1.2.F.8 requires a refueling frequency test to verify that auto-connected loads do not exceed 6201 KW. The procedures referenced in the matrix specify a limit of 6635 KW.

e. The following surveillance procedures have not been issued:

Mode	TS Requirement	Procedure
4	4.3.2.1-03.3-1	STS IC-214 STS IC-225
	4.3.2.1-09.0	STS IC-214 STS IC-229
3	4.3.2.1-03.C.1	STS IC-225
	4.3.2.1-09.D	STS IC-214
	4.3.2.1-10	STS IC-229
2	4.3.2.1-03.A.1	STS IC-214
	4.3.2.1-03.C.1	STS IC-225
	4.3.2.1-09.D	STS IC-214
	4.3.2.1-10	STS IC-229
	4.3.3.9.B,C	STS IC-830 STS IC-840
1	4.2.3.6	STS MT-054
	4.3.1.1-16B	STS MT-420
	4.3.2.1-03.A.1	STS IC-214
	4.3.2.1-09.D	STS IC-214
	4.3.2.1-03.C.1	STS IC-225
	4.3.2.1-10	STS IC-229
	4.3.3.9B,C	STS IC-830 STS IC-840

The licensee's matrix does not explicitly identify procedures for TS surveillance requirements contained in Section 3.12 of the TS.

These observations were discussed with the licensee and based on that discussion it was determined that items a through d had been internally identified and either had been or were in the process of being corrected. With respect to item e, all of the procedures referenced are in the process of being either written or approved. Issuance of Procedures STS IC-214, 225, and 229 is a Mode 4 constraint and will be tracked as an open item. (50-482/8508-07) Issuance of STS IC-830 and 840 is a Mode 2 constraint and will be tracked as an open item. (50-482/8508-08) Issuance of STS MT-054 is a Mode 1 constraint and will be tracked as an open item. (50-482/8508-09)

The inspector also noted that the licensee's matrix referenced Procedures RXE 04-100 and 200 as satisfying certain surveillance requirements contained in Section 3.10 of the TS. These procedures have not been prepared. For initial core loading and startup, the applicable surveillance requirements will be satisfied by special startup testing procedures; however, the RXE procedures will have to be in place prior to startup following the first refueling outage. This will be tracked as an open item. (50-482/8508-10)

Based on this review the NRC inspector considers open item 50-482/8432-05 closed.

No violations or deviations were identified.

9. Procedure Review

The NRC inspector reviewed the following procedures for technical content and format and found these acceptable with comments as indicated:

- STS IC-212, "Actuation Logic Test BOP ESFAS": no comments
- STS IC-860B, "Channel Calibration Accident Monitoring Containment Recirculation Sump Level B": This procedure contained no reference to applicable radiological protection procedures or requirements, despite the fact that it involves work in potentially contaminated areas. In discussions with the licensee, it was indicated that the plant safety review committee had approved the position that radiological precautions and procedures need not be referenced in procedures as a separate program was in place which ensured adherence to such requirements. The NRC inspector acknowledged the validity of such a position but noted that it was inconsistently applied in that numerous procedures did reference radiological precautions and procedures and that this inconsistency represented a potential human factors "trap." The licensee acknowledged the inspector's concerns and agreed to remove the subject references in all procedures as they were routinely reviewed or revised. This commitment satisfied inspector concerns in this area.

No violations or deviations were identified.

10. Conduct of Operations

The NRC inspectors observed various plant activities to determine compliance with NRC regulations, plant administrative controls, and the effectiveness of the plant staff. The standing and special orders log was inspected for conformance to the indices and review signatures by the shift supervisors and supervising operators. One supervising operator had not initialed for review of any of the recent special orders. The NRC inspector was informed that this individual had recently been assigned to this position and may not be aware of this administrative requirement. This was brought to the attention of licensee management for corrective action.

A special order is in effect requiring the operating shifts to work 12 hours. They are continuing to take their scheduled days off which equates to working 26 days during a 35-day period. No evidence of degradation of performance resulting from long hours was observed.

However, the operations superintendent agreed with the NRC inspector that eventually performance degradation could be expected and indicated an intention to cut back the hours in the near future.

A shift supervisor shift change was observed which appeared to comply with administrative requirements and effectively transferred responsibilities.

Control of maintenance work and surveillance testing were also observed. These activities were being performed in accordance with administrative requirements. However, in one instance a disagreement occurred between the oncoming and offgoing shift supervisors as to whether Block 4 of the surveillance routing sheet should be signed by the shift supervisor. The NRC inspector reviewed the procedure and found it confusing. Plant management agreed with his suggestion that much confusion could be eliminated by having filled in sample forms in the procedures and indicated an intent to initiate this practice.

No violations or deviations were identified.

11. Event Followup

The NRC inspector reviewed selected Wolf Creek Event (WCE) reports to determine:

- Adequacy of response
- Adequacy of analysis to determine cause
- Adequacy of corrective action to prevent recurrence

The following WCE reports were reviewed:

- 85-02 - Inadvertent Opening of MSIV by I&C During Vacuum Test
- 85-03 - Overpressurization of Temporary Hoses Installed for RCP Seal Injection Flush
- 85-05 - Flooding in Containment from SG Manways
- 85-06 - Loss of XMR01
- 85-07 - Radiation Monitor Alarm-Fuel Building

All WCE reports reviewed were adequate. Event Report 85-03 documented an overpressurization and bursting of temporary hoses installed for reactor coolant pump seal injection flushing. It also resulted in bending of piping downstream of Valve BLV075. It was apparently caused by leakage past Valves BG-HV8357A and/or BG-HV8357B. The recommended corrective action centered on ascertaining the existence of the suspected leakage.

The NRC inspector expressed concern to plant management that apparently no overpressure protection was provided for this temporary modification. This event did not result in damage to safety class equipment or

personnel injury. However, this is a possibility when temporary modifications are made which connect low pressure systems to high pressure systems.

No violations or deviations were identified.

12. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in paragraphs 2, 4, 5, 7, and 8.

13. Exit Interview

The NRC inspectors met with licensee personnel to discuss the scope and findings of this inspection on January 31, 1985.