

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

② File - upserted
testimony

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
CONSUMERS POWER COMPANY) Docket Nos. 50-329 OM & OL
) 50-330 OM & OL
(Midland Plant, Units 1 and 2))

TESTIMONY OF JAMES G. KEPPLER
WITH RESPECT TO QUALITY ASSURANCE

Q.1 Please state your name and position.

A.1 My name is James G. Keppler. I am the Regional Administrator of the NRC's Region III office. My professional qualifications have been previously submitted in this proceeding.

Q.2 Please state the purpose of your testimony.

A.2 In my testimony to the Board in July, 1981, I testified on the more significant quality assurance problems that had been experienced in connection with the Midland project and the corrective actions taken by Consumers Power Company and its contractors. I stated that, while many significant quality assurance deficiencies have been identified, it was our conclusion that the problems experienced were not indicative of a breakdown in the implementation of the overall quality assurance program. I also noted that while deficiencies have occurred which should have been identified earlier, the licensee's QA program had been effective in the ultimate identification and subsequent correction of these deficiencies. Furthermore, I discuss

8408130315 840718
PDR FOIA PDR
RICE84-96

the results of Region III's special quality assurance inspection of May 18-22, 1981, which reflected favorably on the effectiveness of the Midland Project Quality Assurance Department --- implemented in August 1980. The thrust of my testimony was that I had confidence that the licensee's overall QA program for the remedial soils work and the remainder of construction would be implemented effectively.

It wasn't until April 1982 that I was made aware of additional problems with the effectiveness of implementation of the QA program. The problems came to my attention as a result of the April 1982 meeting between NRC and Consumers Power Company to discuss the Systematic Assessment of Licensee Performance (SALP) report for Midland and the discussions held within the Staff in preparation for that meeting. The SALP report addressed the Midland site activities for the period July 1, 1980 through June 30, 1981. During this period, the soils work activities were rated Category III, the lowest acceptable rating given by the SALP review process.

During the April, 1982 public meeting on the SALP findings, Mr. Ronald J. Cook, Midland Senior Resident Inspector, stated that as of that date he would rate Consumers Power Company soils work Category III, the same rating as it received for the SALP period. He had similar comments on other work activities. Based on my July, 1981 testimony, I expected Consumers Power Company would be rated a Category I or II in the soils area, as well as other areas, by April, 1982, and I was certain that my 1981 testimony had left that impression with the Board.

On the basis of the above, I decided it was appropriate to supplement my July, 1981 testimony.

Q.3 What actions have been taken by Region III in response to the information contained in your previous answer?

A.3 I met with the NRC supervisors and inspectors who had been closely involved with Midland during the past year to get a better understanding of their concerns. As a result of these meetings, I concluded that the problems being experienced were ones of program implementation rather than problems with the QA program itself.

Because of my concerns, I requested the Region III Division Directors most actively involved with the Midland inspection effort to try to identify the fundamental problems and their causes, and to provide me with their recommendations to resolve these problems. They provided me with an assessment of technical and communications problems experienced by the licensee and made recommendations with respect to the licensee's workload, institution of independent verification programs, and QA organization realignments. This response is included as Attachment A. (Memorandum from Norelius and Spessard to Keppler, dated June 21, 1982.)

In July 1982 I recognized that more NRC resources were going to have to be provided in overseeing activities at Midland and created the Office of

Special Cases (OSC) to manage NRC field activities at Midland (and Zimmer). Mr. Robert Warnick was assigned Acting Director. A Midland Section was formed comprised of a Section Chief, two regional based inspectors, and two resident inspectors (the second resident inspector reported onsite in August 1982).

Before meeting with representatives of the Office of Nuclear Reactor Regulation (NRR) to discuss options for NRC action in connection with Midland, Mr. Warnick requested Senior Resident Inspector Cook to provide a summary of the indicators of questionable licensee performance. Mr. Cook provided a memorandum documenting a number of problems and concerns, which is included as Attachment B. (Memorandum R. J. Cook to R. F. Warnick, dated July 23, 1982.)

Mr. Warnick and I met with representatives of NRR on July 26, 1982 to discuss Consumers Power Company's performance. This meeting resulted in recommended actions concerning third party reviews of past work and ongoing work which are described in Attachment C. (Memorandum, Warnick to Files, dated August 18, 1982.)

Following the meeting with NRR, Mr. Warnick discussed with members of the Midland Section positions concerning third party reviews developed at the meeting with NRR. The members of the Midland Section were not convinced the recommended actions were the best solution, since the causes of the problems had not been clearly identified. Instead, they proposed a somewhat different approach consisting of an augmented NRC inspection effort coupled

with other actions to strengthen the licensee's QA/QC organization and management. This proposal is documented in Attachment D. (Memorandum, Warnick to Keppler, dated August 18, 1982.)

In response to these suggestions, Mr. Darrell Eisenhut, Director - Division of Licensing, NRR, and I met with top corporate management representatives from Consumers Power Company on August 26, 1982 and again on September 2, 1982, to discuss NRC's concerns and possible recommended solutions. Because it was not clear to the NRC staff why Consumers Power was having difficulty implementing their QA program, we requested them to develop and submit to the NRC actions which would be implemented to improve the QA program implementation and, at the same time, provide confidence that the program was being implemented properly.

Consumers Power subsequently presented its proposal for resolution of the identified problems in two letters dated September 17, 1982, which are included as Attachments E and F. (Letters Cook to Keppler and Denton, dated September 17, 1982.)

These proposals were lacking in detail, particularly with respect to the plant independent review programs. Following a meeting between NRC staff members and Consumers Power Company in Midland on September 29, 1982, Consumers Power submitted a detailed plan to NRC on October 5, 1982 concerning the planned third party activities (Attachment G). Consumers Power Company's proposals (Attachments E, F and G) are currently under review by NRC.

Q.4 Do you believe that construction of the Midland Plant should be permitted to continue?

A.4 Yes. This portion of my testimony discusses what has been accomplished and what will be accomplished in the near future to provide a basis for continued construction of the Midland plant.

Consumers Power Company will have independent third party assessments of the Midland construction project. These assessments will include reviews of safety related work in progress and of completed work activities. Stone and Webster has been selected by Consumers Power Company to perform the assessment of the remedial soils work. The scope of, and contractors for, the remaining assessments are presently under review by the NRC staff.

Along with the independent third party reviews, the Office of Special Cases, Midland Section, has expanded its inspection effort and has taken actions to assure compliance with the Licensing Board's April 30, 1982 requirement that the remedial soils work activities receive prior staff approval. Specifically, the Midland Section has established a procedure for staff authorization of work activities proposed by Consumers Power Company (Attachment H, Work Authorization Procedure, dated August 12, 1982); and has caused a stop of the remedial soils work on two occasions: August, 1982 and September, 1982 (Attachments I and J, Confirmatory Action Letters dated August 12, 1982, and September 24, 1982, respectively). The Section has also started an inspection of the work activities which have been accomplished by Consumers Power Company in the last twelve months in

the diesel generator building, the service water building, and other safety related areas. This inspection was started during October 1982 and is continuing as of the filing date of this testimony.

Based upon (1) the third party assessments of the plant which will be performed, (2) the increased NRC inspection effort, and (3) the work authorization controls by the NRC, I believe that work on the Midland Plant may continue. As demonstrated by the previous stop-work effected in the remedial soils area, the staff will take whatever action is necessary to assure that construction is in accordance with applicable requirements and standards.

U.S. NUCLEAR REGULATORY COMMISSION
REGION III

OUTGOING TRANSMISSION SERVICE REQUEST

*Klingen -
Please review -
note - a
page is missing*

1/7/83

Number of Pages 2

To: JANE AXELROD
R. MARABITO, RIII, OPA
Subject: NEWS RELEASE

_____ Bldg.
_____ ars
_____ t
_____ s Bldg.
_____ Springs
(ste Bldg)
_____ Bldg.
I _____
II _____
IV _____
V _____
_____ ent at

FOR WP & D/C USE

System 6 (WP) _____
Rapidfax _____
3M Ext #727 _____
3M Ext #728 _____
FTS _____
Commercial _____
Time Started _____
Time Completed _____
Trans. Time _____
(Actual Minutes)
Operator _____

_____ rtate Office
_____ tify recipient & fax number
_____ gnate-include fax number

*2nd page being faxed!
2/8/83*

NRC PROPOSES \$120,000 FINE FOR QUALITY ASSURANCE VIOLATIONS AT MIDLAND

The Nuclear Regulatory Commission's Region III Office has proposed a \$120,000 fine against Consumers Power Company for an alleged breakdown in the quality assurance program at the Midland Nuclear Power Station construction site in Midland, Michigan.

An NRC inspection of equipment installation in the plant's diesel generator building between October 12 and November 25, 1982, identified numerous items of noncompliance with NRC Quality Assurance requirements.

The fine consists of two violations, each carrying a \$60,000 penalty.

The first violation is for multiple examples of plant personnel failing to follow procedures, drawings and specifications in the installation of equipment. In one instance, an inspection program was not established to ensure the segregation of electrical cables in accordance with design requirements. In other cases, changes in drawings or specifications were made without proper authorization.

The second violation was the result of the NRC's determination that quality control supervisors instructed quality control (QC) inspectors to suspend inspections when excessive numbers of deficiencies were observed.

The construction being inspected was then turned back to the construction staff for rework. The intent of this practice was to improve construction quality prior to the QC inspections. In some cases, however, the follow-up QC inspections focused only on the previously identified deficiencies, instead of conducting a full reinspection. This practice, therefore, provided no assurance that unreported deficiencies were later identified or repaired.

Reinspections will be required for those areas where this QC practice was utilized.

This inspection practice also resulted in incorrect data being fed into the licensee's Trend Analysis Program, thereby inhibiting the utility's ability to determine the root causes of deficiencies and to prevent their recurrence.

In a letter to Consumers announcing the proposed fine, Regional Administrator James G. Keppler said the violations demonstrate the company's "failure to exercise

February 8, 1983

land plant. It includes a reinspection of safety-related systems, third-party reviews to monitor project performance, and QA/QC organizational changes, among other things.

Consumers also will be required by the NRC to determine the extent to which QC supervisors instructed inspectors to limit their findings of deficiencies and to inform the NRC of what corrective action will be taken to prevent this from occurring in the future.

The licensee has until March 10, 1983, to either pay the fine or to protest it. If the fine is protested and subsequently imposed formally by the NRC staff, Consumers Power may request a hearing.

###

February 8, 1983

AGENDA

OPENING REMARKS

JAMES G. KEPPLER

REVIEW OF INSPECTION FINDINGS

WAYNE D. SHAFER

RESPONSE IF DESIRED

CONSUMERS POWER COMPANY

WHERE DO WE GO FROM HERE?

JAMES G. KEPPLER

OTHER MATTERS

JAMES G. KEPPLER

back of
Firm Post

Notes

101
AM 24, 112

Ray ... - Gen. Manager G H

111em ... - G H Department

G H

Department

111em

SPECIAL HARDWARE INSPECTION OF THE DIESEL GENERATOR BUILDING OCT. 12 - NOV. 25, 1982

WE ARE CONSIDERING THE ISSUANCE OF TWO MAJOR ITEMS OF NONCOMPLIANCE:

1. THE FAILURE TO IMPLEMENT THE QUALITY ASSURANCE PROGRAM AS REQUIRED BY CRITERION II.

2. THE FAILURE OF QC INSPECTORS TO DOCUMENT ALL OBSERVED NONCONFORMANCES DURING INSPECTIONS. THIS PRACTICE WAS INITIATED AS A RESULT OF MANAGEMENT DIRECTION.

ITEM 1

CRITERION III: DESIGN CONTROL

SIX EXAMPLES OF NONCOMPLIANCE. THE FOLLOWING ARE EXAMPLES:

1. MEASURES WERE NOT ESTABLISHED FOR THE SELECTION AND REVIEW FOR SUITABILITY OF APPLICATION OF MATERIALS ASSOCIATED WITH THE DIESEL GENERATOR EXHAUST MUFFLER.
2. THE FAILURE TO ANALYZE THE FOUR DIESEL GENERATOR BUILDING MONORAILS AS SEISMIC CATEGORY 1.
3. THE LICENSEE DESIGNED AND CONSTRUCTED THIRTY-TWO DIESEL GENERATOR BUILDING EXHAUST SYSTEM HANGERS WITHOUT TRANSLATING THE APPLICABLE REGULATORY REQUIREMENTS INTO DESIGN DOCUMENTS.

CRITERION V: INSTRUCTIONS, PROCEDURES, AND DRAWINGS

SEVENTEEN EXAMPLES OF NONCOMPLIANCE. THE FOLLOWING ARE EXAMPLES:

1. FAILURE TO INSTALL DIESEL GENERATOR ENGINE CONTROL PANELS IN ACCORDANCE WITH REQUIREMENTS AND DRAWINGS.
2. FAILURE TO IDENTIFY BY YELLOW PAINTED ENDS AND/OR SEGREGATE NON-Q STOCK STEEL.
3. FLAME CUTTING OF DIESEL GENERATOR MUFFLER SUPPORT SLOTS IN VIOLATION OF THE VENDOR DRAWING. -- was done by vendor
4. THE EIGHT BRACING TOP GUSSET PLATES FOR THE HVAC FAN SUPPORT WERE NOT SIZED ACCORDING TO SPECIFICATIONS.

CRITERION VI: DOCUMENT CONTROL

ONE EXAMPLE OF NONCOMPLIANCE:

MEASURES WERE NOT ESTABLISHED TO ENSURE THAT HANGER ISOMETRIC DRAWINGS WERE DISTRIBUTED TO THE SITE DOCUMENT CONTROL CENTER.

CRITERION VII: CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

ONE EXAMPLE OF NONCOMPLIANCE:

THE FAILURE OF SOURCE INSPECTIONS AT THE SUPPLIER FACILITY AND RECEIPT INSPECTIONS AT THE MIDLAND SITE TO IDENTIFY NONCONFORMANCES OF THE WIRING IN THE DIESEL GENERATOR ENGINE CONTROL PANELS.

Source identified - 19 pieces of nonconf. in the panels

CRITERION IX., CONTROL OF SPECIAL PROCESSES

ONE EXAMPLE OF NONCOMPLIANCE:

THE FAILURE TO VERIFY PREHEAT OF EXISTING STRUCTURAL STEEL TO A TEMPERATURE OF 70° F AS REQUIRED BY SITE SPECIFICATIONS AND THE AWS 1974 CODE.

CRITERION X: INSPECTION

TWO EXAMPLES OF NONCOMPLIANCE:

1. THE FAILURE TO ESTABLISH AN INSPECTION PROGRAM TO ENSURE SEGREGATION OF CONTROL AND INSTRUMENTATION CABLES. — *Control room, large room*
2. THE FAILURE OF QC INSPECTIONS TO DETECT AND IDENTIFY NONCONFORMANCES ASSOCIATED WITH THE INSTALLATION OF THE HVAC FAN SUPPORT STEEL.

401K not inspected and accepted.

CRITERION XIII: HANDLING, STORAGE AND SHIPPING

ONE EXAMPLE OF NONCOMPLIANCE:

FIVE DIESEL GENERATOR BEARING MUFFLER PLATES WERE NOT MAINTAINED SINCE THEIR
INSTALLATION.

CRITERION XV: NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

TWO EXAMPLES OF NONCOMPLIANCE:

1. MEASURES WERE NOT ESTABLISHED TO ENSURE THAT NONCONFORMING MATERIALS WERE NOT UTILIZED IN SEISMIC CATEGORY I SYSTEMS.
2. TWO NONCONFORMING CONDITIONS IDENTIFIED BY THE NRC AND CONFIRMED BY THE LICENSEE WERE NOT DOCUMENTED ON A NONCONFORMANCE REPORT.

has been discussed first!

ITEM 2

CRITERION XV: NONCONFORMING MATERIALS, PARTS, OR COMPONENTS

ONE EXAMPLE OF NONCOMPLIANCE:

THE FAILURE OF QUALITY CONTROL INSPECTORS TO DOCUMENT ALL OF THE DEFICIENCIES WHICH THEY OBSERVED DURING THEIR INSPECTIONS.

*see the Contract Inspection Report (CIR) - To find compliance element
it was an inspection link of the whole system.*

Religion

back
of last
page

Democracy

Annals

John B. ... ^{U.C.} Site Superintendent

... ^{Production} Site ...

U.C. Department

U.C. Inspector

CIVIL PENALTY ACTION

EA No. 83-3

CP No. _____

EN No. _____

Licensee: CONSUMERS POWER COMPANY

1945 WEST PARNALL ROAD

JACKSON, MI 49201

Facility: MIDLAND

Docket No. 50-329, 50-330

License No. _____

Proposed Penalty: \$ _____ Date: _____

Imposed Penalty: \$ _____ Date: _____

Payment: \$ _____ Date: _____

Close Out: _____ Date: _____

Remarks:

Rec'd HQ 1/7/83 fm Reg. III

Assigned to: ES _____ ELD _____

Type License:

Reactor (const.)

Reactor (oper.)

Materials

Fuel Facility

Other: _____

Type Case:

Exposure

False Statement

Operator

Physical Security

Quality Assurance

Radiation Safety

Reactor Safety

Transportation

Other: _____

Summary:



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

King
copy for Stone
Capital
GJS

JAN 11 1983

MEMORANDUM FOR: James G. Keppler, Regional Administrator
FROM: R. F. Warnick, Acting Director, Office of Special Cases
SUBJECT: MIDLAND MONTHLY STATUS REPORT

Enclosed is the monthly status report for the Midland Project.
The report is for the period of December 1, 1982 through December 31,
1982.

RFWarnick

R. F. Warnick, Acting Director
Office of Special Cases

Enclosure: As stated

cc w/encl:
D. G. Eisenhut, NRR
J. H. Sniezek, IE

~~8312140056~~

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

MIDLAND MONTHLY STATUS REPORT

DECEMBER 1 - DECEMBER 31, 1982

SUMMARY OF SIGNIFICANT MIDLAND ISSUES

1. Heating, Ventilation and Air Conditioning (HVAC)

The licensee, as a result of audits of HVAC work activities, determined that welder certifications and welding procedure qualifications were inadequate. All safety-related welding on HVAC was stopped by the licensee on November 30, 1982, and 151 craft workers were laid off. PNO-III-82-130 was issued.

During this reporting period the licensee has begun developing a new set of welding procedures.

2. Electrical

The licensee continued electrical cable reinspections. Two (2) additional improperly substituted cables have been identified. A total of six (6) substituted cables, of approximately 4000 cables reinspected, have been identified. Approximately 5000 cables remain to be reinspected.

3. Remedial Soils Work Authorization

On December 9, 1982, the NRC authorized the licensee to commence construction work on piers 12 East and 12 West under the Turbine Building. On December 13, 1982, Consumers Power Company began work on the piers. During excavation for pier 12 the licensee ran into concrete fill. The chipping and removal of the concrete has caused the work to proceed slower than the licensee had previously expected.

4. Consumers Power Company Construction Completion Program

On December 2, 1982, Consumers Power Company presented to the Region III staff a plan to establish confidence in the adequacy of safety-related work at the Midland Site. The licensee's initial Construction Completion Program (CCP) required a substantial reduction in most of the safety-related work activities and a subsequent reduction in the workforce involving approximately 1100 people. Implementation of the CCP required removal of construction equipment from the work spaces and building cleanup in preparation for a complete QC inspection of every safety-related system in every area. PNO-III-82-131 was issued.

Region III has prepared a draft report of the October-November team inspection. Escalated enforcement action is being considered. An enforcement conference with the licensee is scheduled for January 18, 1983 in RIII.

A meeting was held on December 7, 1982 with IE, NRR, and ELD to discuss the findings of the RIII October-November team inspection and the licensee's proposed construction completion program. A meeting with the licensee to discuss the CCP is scheduled for February 3, 1983 in Midland. It will be open to public attendance.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Smith
R. F. Warnick

MAR 14 1983

MEMORANDUM FOR: James G. Keppler, Regional Administrator
FROM: R. F. Warnick, Director, Office of Special Cases
SUBJECT: MONTHLY STATUS REPORT FOR FEBRUARY, 1983

Attached is the status report for the Midland Project for the period of February 1-28, 1983.

Should you have any questions regarding this information please contact W. D. Shafer of my staff.

RFWarnick

R. F. Warnick, Director
Office of Special Cases

Attachment: At stated

cc w/attachment:
D. G. Eisenhut, NRR
J. H. Sniezek, IE
A. B. Davis, RIII

~~8312140115~~



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

March 3, 1983

MEMORANDUM FOR: W. D. Shafer, Chief, Office of Special Cases, Section 2
FROM: R. J. Cook, Senior Resident Inspector, Midland Site
SUBJECT: MONTHLY STATUS REPORT

Attached is the status report for the Midland Nuclear Construction Site covering the period of February 1, 1983, through February 28, 1983.

The status report contains the input from each member of the Midland Inspection Site Team of the Office of Special Cases.

R. J. Cook

R. J. Cook
Senior Resident Inspector
Midland Site Resident Office

cc/attachments
R. F. Warnick
R. B. Landsman
R. N. Gardner
B. L. Burgess

~~831248116~~

SUMMARY OF SIGNIFICANT MIDLAND ISSUES

1. Heating, Ventilation and Air Conditioning (HVAC)

Qualification of welding procedures commenced on February 14, 1983, and to date, approximately 115 coupons for sheet metal welding have been completed. Two welding procedures have been sent to MPQAD for final review prior to qualification. In addition, the Zack Company and Bechtel Power Company held a meeting on February 22, 1983, to establish commitments for procedures review and approval prior to restart of work activities.

The NRC review of the Zack welding requalification program, addressed in the Construction Completion Program (CCP), is expected to take place by March 18, 1983.

2. Electrical

Installed cable reinspection continued with one additional improperly substituted cable found. Currently, seven substituted cables of approximately 7,300 cables inspected have been identified. Approximately 1,800 cables remain to be reinspected.

Evaluation of the safety significance continues through the use of a nonconformance report.

3. Remedial Soils Work Authorization

Concrete pours for Pier 12 East and West were completed during this report period, and load transfer to the piers is expected during the second week of March.

Four point jacking of Units 1 and 2 Feed Isolation Valve Pits (FIVPs) was completed on February 12th and 19th respectively. After jacking of each FIVP, new cracks were found and one crack under the top slab of the Unit 1 FIVP reached the alert level of 10 mils.

The NRC has requested the licensee to perform an engineering evaluation to determine the cause of FIVP top slab cracking prior to excavation underneath the FIVPs.

Authorization for Pier 11 East and West was provided to the licensee by the NRC on February 22, 1983, and Pier 9 East and West was authorized on February 24, 1983.

4. Construction Completion Program Public Meeting

A public meeting was held on February 8, 1983, between the NRC and Consumers Power Company to discuss the licensee's proposed Construction Completion Plan and to allow public comment on the program.