UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

TESTIMONY OF ROY A. WELLS, JR.
ON QUALITY ASSURANCE

I. Introduction

My name is Roy A. Wells, Jr. I am Executive Manager, Midland Project Quality Assurance Department (MPQAD). A summary of my training and experience is set forth in my resume which is attached to this testimony (Attachment 1). The purpose of my testimony is to describe the recent changes in organization of MPQAD, including changes in the organizational structure and the assumption of responsibility for and direction of the quality control function, and to explain the use of in-process inspection notices (IPIN's) which became the subject of a Notice of Violation as a result of the NRC Staff inspection of the diesel generator building last fall.

II. QA/QC Organization Changes

Changes in the organization and staffing of MPQAD prior to the summer of 1982 has previously been described in testimony presented to the Board. In August, 1982, formal reorganization of the soils quality function took place, although management review of this subject had been underway for several months. Mr. J. K. Meisenheimer relocated to the site in July, 1982, and

was appointed Soils Superintendent for civil and remedial soils, reporting to the MPQAD Manager, Mr. Walter Bird. At the same time, Consumers Power assumed direct control of soils QC and placed it under the supervision of the Superintendent. With this organizational change, the soils QA and QC functions were integrated under the direction of MPQAD. This organizational change allowed for closer coordination between Quality Assurance Engineering and Quality Control and for more effective use of project quality resources. Consumers Power assumed the responsibility for directing the soils QC function through the direct supervision of the Soils Project Field Quality Control Engineer (PFQCE) by the Soils Superintendent. Some Consumers Power personnel in the Quality Assurance inspection function were also integrated into the QC organization.

This organizational change provided single point accountability for all the quality activities covered by the Board's Order of April 30, 1982. At the time of this organizational move, there were approximately 30 people in the QC and the QA Engineering functions supporting the Soils Superintendent.

In October of 1982, I assumed the responsibility of Executive Manager, MPQAD, and relocated to the site.

At the present time, MPQAD is directly responsible to the Vice President, Projects, Engineering and Construction (PE&C), Mr. James W. Cook. Mr. Cook is involved in frequent (usually weekly) QA Management meetings and Soils Project Organization meetings. His full support has been provided to the moves

to have MPQAD undertake the QC integration and to the extensive MPQAD actions necessary to support the Construction Completion Program, which is described in his testimony.

In my capacity as Executive Manager, MPQAD, I report directly to Mr. Cook. After I assumed the position of Executive Manager, MPQAD, I directed that the Soils Superintendent, Mr. Meisenheimer, report directly to me. I also assigned to the Manager, Mr. Bird, continued responsibility to insure that MPQAD procedures, including the Soils QA Plans (MPQP-1 and MPQP-2), meet programmatic requirements.

As Executive Manager of MPQAD, I am a member of the Midland Project Office and have direct line responsibility for the MPQAD as my sole responsibility. I am full time at the site and I live in Midland. Benjamin Marguglio has returned to his position as Director of Environmental Services and Quality Assurance in Jackson. These and other changes in the QA organization were submitted to the Board in a letter from James Brunner dated November 5, 1982.

There are now three Sections of MPQAD reporting to the Soils Superintendent: Quality Assurance Engineering, Quality Services, and Quality Control. The Quality Services organization was split from the previous Quality Assurance Engineering Section. It has responsibility for administrative activities, programmatic aspects including document control and procedures, and an independent audit function from the other two sections. Mr. D. Horn, who is also the Assistant Superintendent for Soils

QA, heads the Quality Services Section. The Quality Assurance Engineering Section is headed by R. L. Oliver. The Quality Control Supervisor (PFQCE) is M. F. Dewitt. All of these Section Heads are Consumers Power employees. The total number of individuals in these three organizations is over 100. Some additional Quality Engineering personnel are projected to be hired for the Quality Services Section and Quality Assurance Engineering Section by early summer, when the peak soils work loads are projected to commence.

During a management meeting with the NRC staff in September, 1982, Company personnel discussed Quality Control for work being performed by the prime contractor. The J. W. Cook letters of September 17, 1982, and September 26, 1982, provided as attachments to Mr. Keppler's October 29, 1982 testimony, provide details and commitments with regard to the decision to integrate the prime contractor's QC completely with Consumers' MPQAD organization. Consumers Power believed that this reorganization would improve QC performance by the creation of an integrated organization with single-point accountability. As part of the integrated organization, existing QC personnel were required to be recertified and any new QC personnel for work performed by the prime contractor are required to be certified under an enhanced inspector certification program. All QC inspection personnel now receive formal training and are required to pass written closed book examinations on the QC Program and specific inspection plans in addition to the field performance

demonstrations for each inspection plan in order to be certified or recertified. It should be noted that this program was first implemented in the soils quality organization and that all QC personnel certified to the inspection plans supporting soils work have been subject to this upgraded program.

These and other organization changes were implemented on January 17, 1983. First, an Administration and Training section reporting directly to me was created. Second, Consumers Power Company assumed the Bechtel Quality Control function and I appointed a Consumers Power contract employee as superintendent reporting to me. In addition, the soils, HVAC, and QA superintendents and the Manager now report directly to me. Consumers Topical Report (CPC-1A) Policy No 1 was revised to reflect these organizational changes and was submitted to the NRC. This change, Revision 13 of CPC-1A, was approved by NRC as documented in their letter of March 14, 1983.

Provided as Attachment 2 to this testimony is Page 18 from Policy No 1 of CPC-1A, which provides the MPQAD organization chart. This chart has been annotated with the incumbents in each organizational box. The organization description of key responsibilities for the MPQAD major functions is as follows:

I have the line responsibility for the organizational elements which report directly to me as shown on Attachment 2. W. R. Bird, as Manager of MPQAD, retains overall responsibility to me for coordinating the Company's reviews of conditions for reportability to the NRC under 10 CFR section 50.55(e) and 10 CFR

part 21 and for making required reports to the NRC. Mr. Bird also provides quality assurance reviews of the Bechtel and Consumers Power program and department level procedure manuals. In addition, he has direct supervision of a site audit function and of the Jackson and Ann Arbor Quality Assurance Services section.

As reflected in the attached organization chart, Mr. Curland is the QA Superintendent. His section, together with the QA Services Section under Mr. Bird, performs conventional quality engineering functions. He has specific responsibility for preparing, reviewing, approving, and issuing all Project Quality Control Instructions (PQCI's) and other inspection plans. Mr. Taggart, the Assistant QA Superintendent, has primary responsibility for QA's role in project testing and turnover activities.

The Quality Control Superintendent is Mr. Friedrich. Quality Control, now under the MPQAD organization, has personnel within it from Consumers Power, Bechtel, and contract sources. These personnel are all accountable to Mr. Friedrich, who is a Consumers Power contract employee. Quality Control is responsible for first line quality inspection activities including ASME Code inspections under the direction of the QC Superintendent. This section also provides for the review of PQCI's with regard to resource commitment and ability to perform. John T. Christy, a Consumers Power employee, was appointed Assistant QC Superintendent on April 1, 1983.

Messrs. Meisenheimer and Leonard are the Soils and HVAC Superintendents respectively. The QA and QC functions are integrated in their areas. The integrated organizations under their direction carry out essentially the same QA/QC functions as described above.

As Section Head for Administration and Training, Mr. Ewert is responsible, along with other assignments, for directing the Training and recertification activities for MPQAD. He has specific responsibility for planning, coordinating, and providing training for MPQA personnel.

Further improvements in the organization are under consideration but are not yet approved by management. We will apprise the Board and the parties of these changes when final decisions are made.

III. MPQAD Involvement In CCP Activities

MPQAD has been and will be conducting a number of activities in support of the Construction Completion Program (CCP) outlined in Mr. Cook's testimony and related programs. Since October, we have been engaged in a major effort to recertify QC inspectors. We are bringing in additional new quality personnel to support verification activities and increased inspection levels when construction work resumes. As mentioned in Mr. Cook's testimony, we are now engaged in a review of all PQCI's, and we are planning for the quality verification program. Finally, we are conducting the ongoing cable and hanger reinspection described in the testimony of Mr. Rutgers.

The program to recertify all QC inspectors is a major activity involving a substantial commitment of resources. The first part of the program is the retraining effort. In this activity the inspectors receive instruction in programmatic quality matters, including programmatic quality plans, nonconformance procedures, and general QA/QC procedures. They also receive training in specific matters, such as, particular procedures governing inspection of certain items, inspection requirements and methodologies, testing methodologies, hold points, and so on. The inspectors are given written examinations on both programmatic and specific aspects and are also required to undergo a performance demonstration to assure proficiency in actual inspections. We instituted the training and recertification program for the soils area first and we have been recertifying inspectors for other disciplines in line with projected inspection needs.

Another of our major activities is hiring new quality personnel. We have added to our quality work force substantially already and project the hiring of more personnel to meet the anticipated inspection needs when construction resumes under the CCP.

To support Phase 1 of the CCP, we have been involved in planning the quality verification portion of Phase 1 work. Some of the details of the quality verification program are still under development, but this program will involve a major reinspection of accessible items and documentation reviews of

inaccessible items. It should be noted that the verification is in addition to the reinspection of cables and hangers mentioned earlier.

In order both to perform the verification to present day standards and to minimize the opportunity for confusion in future inspections, we have been reviewing and, as necessary, revising all PQCIs for quality inspections. The revisions are being made to assure both that the instructions are as explicit and unambiguous as we can make them and to assure that requirements are carefully tailored to the specific safety function of the inspected item.

I believe that the totality of our efforts to date has already resulted in a significant upgrading of the performance of the quality function at Midland. In the soils area, in particular, we have been very effective in finding nonconformances, identifying root causes, and resolving the identified problems. I believe that when construction work under the CCP resumes we will carry forward the significant upgrade in performance into the quality process for the remaining plant work.

IV. The IPIN Issue

From October to November, 1982, staff members of NRC Region III conducted a special team inspection focusing on the diesel generator building at Midland. The inspection involved a substantial number of NRC inspection man-hours augmented by outside consultants working with the Region III inspectors. Preliminary results were informally disclosed to the Company in

November and December, 1982, and formally discussed on January 18, 1983. It was at this last meeting that we became aware of the NRC's major concern with the use of IPIN's that certain QC inspection practices could have led to missed inspections. The NRC issued its inspection report and Notice of Violation on February 8, 1983.

The Notice of Violation contained two major findings, the second of which is discussed in Mr. Peck's testimony. The first finding related to the use of a particular procedure used to report nonconforming conditions observed during some quality control inspections. In quality control inspections under the program as it then existed, the inspector had available two means of reporting deficiencies.

Under the applicable procedures, the inspector was to use a nonconformance report (NCR) to document deficiencies discovered during the inspection process which could not be corrected by further prescribed processing in accordance with applicable design documents. The inspector could use either an in-process inspection notice (IPIN) or an NCR to document deficiencies in items for which inspection records were still open which required correction by further processing in accordance with applicable design documents.

Regardless of the method chosen to report deficiencies, the procedures required that the deficiencies be tracked until properly corrected, either by the NCR itself in the first case or by an open inspection record or an NCR in the second case. The

NRC inspection found weaknesses in the practices of some inspectors with respect to IPIN's which, in some circumstances, could have led to missed inspection of attributes.

The Company's position with regard to the findings of the NRC team inspection is set forth in the Company's Response to the Notice of Violation. (See Attachment 1 to the testimony of Mr. Bruce M Peck.) For purpose of this testimony, I will provide my general impression of the inspection findings with respect to IPIN's and the Company's corrective action. Attachment 1 of the Company's Response contains a more detailed discussion of the IPIN problem.

NRC made CPCo aware of our concern with IPIN's in Oct. 1982

When the NRC advised the Company of the details of its findings on January 18, 1983, Mr. Cook directed me to institute a project investigation to determine how IPIN's were being used. About January 19, 1983, I asked Mr. Brunner of the Company legal staff to conduct this investigation. He subsequently put together a task force to investigate the question and recommend corrective action. He utilized legal department staff, members of the project organization, and consultants to conduct the investigation. Since the problem involved inspection practices, I directed the task force to review the QC inspection procedures, focusing on the intended use of IPIN's in that process, to determine how inspectors were actually implementing the procedure, to determine what management instructions had been issued as to the use of IPIN's, and to prepare a summary of the effects that the

use of IPIN's had or might have had on the integrity of the inspection process.

The task force's findings are contained in Attachment 1 to the Company's response to the Notice of Violation (Attachment 1 to Mr. Peck's testimony). The task force found that under an option available to quality control inspectors, which became known as the "return option," the inspectors could terminate incomplete inspections when multiple nonconforming conditions had been observed, turn the work back to construction for corrective action, and document the findings of their partial inspection on IPIN's without completing the remainder of the inspection at that time. Under the procedures, however, it was clear that the inspection record (IR) could not be closed through this process, since final closure of the IR required that items noted on the IPIN must first be corrected and reinspected. The task force found that some quality control engineers may have used unacceptable inspection practices by closing out inspection records on activities on which an IPIN had been written once the deficiences noted on the IPIN had been corrected without verifying that all other inspection attributes required by the IR had been fully inspected.

On the basis of the task force's findings the Company undertook corrective action to eliminate weaknesses associated with the use of IPIN's in the inspection process. I directed that the use of IPIN's for non-soils work be discontinued on January 25, 1983. (Mr. Meisenheimer had already discontinued the

use of IPIN's for soils work prior to the restart of construction in December.)

Quality control engineers are now explicitly instructed in their recertification training to complete all inspections and document all conditions observed on NCR's. In addition, the Company committed to a 100% verification of past quality control inpections involving the use of IPIN's.

ROY A. WELLS, JR.
Biographical Data

Roy A. Wells, Jr. is executive director-Midland project office for Consumers Power Company. The Midland project office is responsible for directing the completion and licensing of the nuclear plant.

Wells joined the company in 1957 as a graduate student-in-training in the general office in Jackson. He took a leave of absence from late 1957 to 1960 to serve in the US Air Force. Upon his return he worked as a laboratory engineer and laboratory measurements supervisor before being named assistant manager of general services in 1968. He was promoted to executive director of environmental activities, in the electric operations department in 1970. He was named executive director of environment and project services in January 1976 and executive director of corporate planning in March 1980. He assumed his present position in August 1981.

Wells was born May 22, 1935, in Carrollton, Ohio. He was graduated cum laude in 1957 from Case Institute of Technology in Cleveland, Ohio with a bachelor of science degree in electrical engineering. He received a master of arts degree in business administration from Western Michigan University in 1968 and a master of science degree in management from Massachusetts Institute of Technology in 1970. He studied at MIT as a Sloan Fellow.

Wells is a registered professional engineer in Michigan.

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ATTACHMENT 1

ORGANIZATION

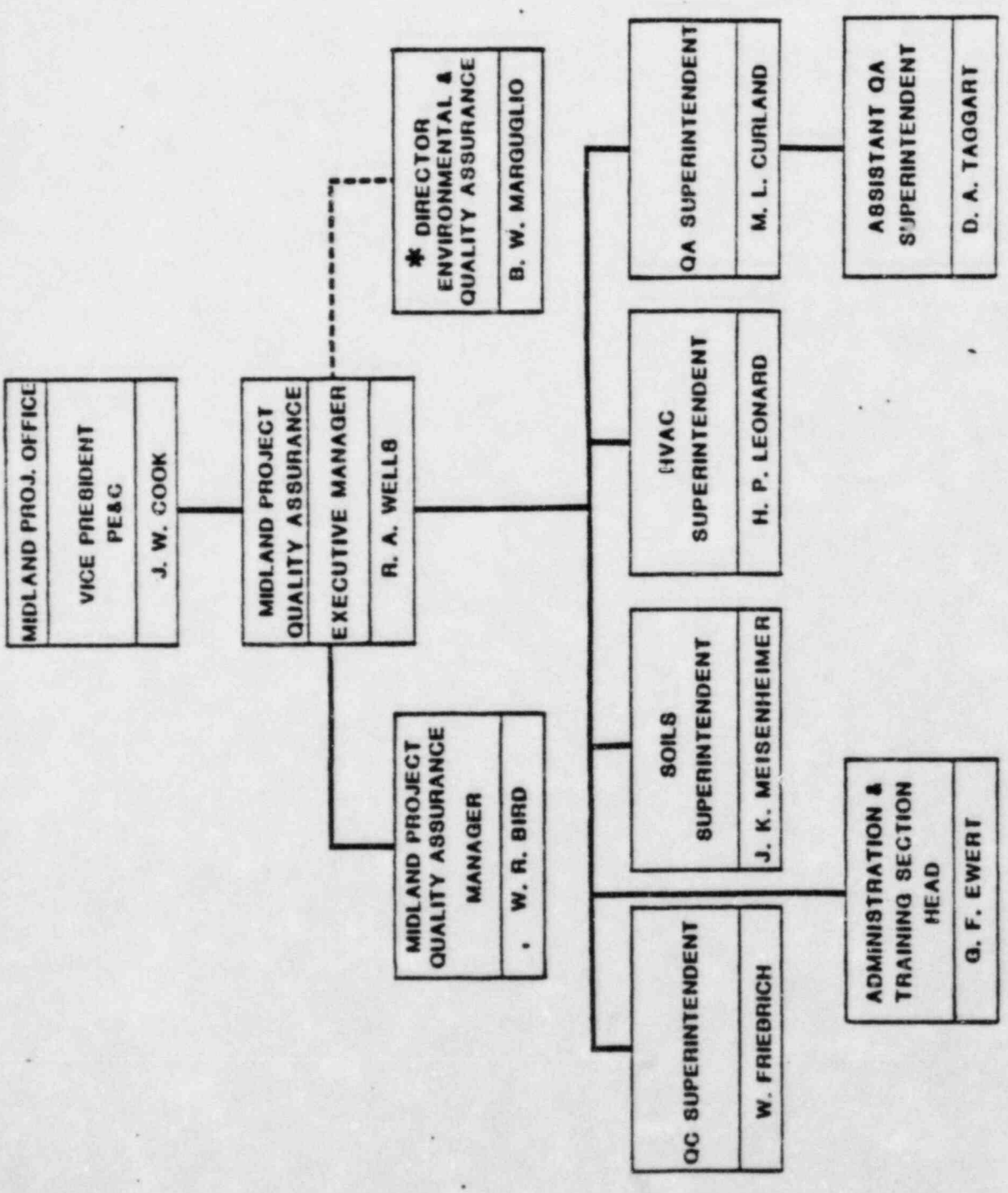

FIGURE 7 – MIDLAND PROJECT QUALITY ASSURANCE DEPARTMENT ORGANIZATION