



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

OCT 06 1983

Docket Nos. 50-329  
50-330

(10 CFR 2.206)

Ms. Billie Pirner Garde  
Government Accountability Project  
Institute for Policy Studies  
1091 Que Street, N.W.  
Washington, D.C. 20009

Dear Ms. Garde:

This is in response to your letter of June 13, 1983 on behalf of the Lone Tree Council and others, requesting that the Commission take a number of actions with respect to the Midland Plant. Your letter was treated as a request for action under 10 CFR 2.206 of the Commission's regulations.

For the reasons set forth in the enclosed "Director's Decision" under 10 CFR 2.206, your request has been granted in part and denied in part. A copy of the decision will be referred to the Secretary for the Commission's review in accordance with 10 CFR 2.206. For your information, I have also enclosed a copy of the notice filed with the Office of the Federal Register for publication.

Sincerely,

Richard C. DeYoung, Director  
Office of Inspection and Enforcement

Enclosures: as stated

cc w/encl.:  
Consumers Power Company  
Michael Miller, Esq.

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R. C. DeYoung\**

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NAME : Murray	Eisenhut	Keppler	Stone	Heishman	Partlow	Taylor	DeYoung	
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*Dupe of \_\_\_\_\_*



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT  
Richard C. DeYoung, Director

In the Matter of  
CONSUMERS POWER COMPANY  
(Midland Nuclear Power Plant,  
Units 1 and 2)

Docket Nos. 50-329  
50-330

(10 CFR 2.206)

DIRECTOR'S DECISION UNDER 10 CFR 2.206

Introduction

By letter to the Nuclear Regulatory Commission (NRC) dated June 13, 1983, Billie Pirner Garde of the Government Accountability Project, on behalf of the Lone Tree Council and others (hereinafter referred to as the petitioners), requested that, among other relief, the NRC take immediate action with regard to the Midland project. The letter was referred to the Director of the Office of Inspection and Enforcement for treatment as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations.

On July 22, 1983, Edward L. Jordan, Acting Director of the Office of Inspection and Enforcement, acknowledged receipt of the petition and informed the petitioners that their request for immediate action was denied. Mr. Jordan noted that safety-related work at the Midland site had been stopped, with the exception of certain specified activities, and that the NRC staff was closely

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following the current activities at the Midland site. Mr. Jordan further noted that Consumers Power Company had agreed not to proceed with implementation of a construction completion program until such a program had been reviewed by the NRC. The staff expected to be able to complete its evaluation of the request before final action was taken on that program. Consequently, Mr. Jordan concluded that "continuation of currently authorized activities at Midland should not affect the staff's ability to grant the requested relief." Letter from Edward L. Jordan, Acting Director, Office of Inspection and Enforcement to Billie Pirmer Garde (July 22, 1983). The staff has now completed its evaluation of the petition, and for the reasons stated herein, the request is granted in part and denied in part.

#### Issues Raised

Petitioners requested that the following six actions be taken by the Commission:

Modify the Construction Permit (Midland Nuclear Power Plant, Units 1 and 2) to include mandatory "hold points" on the balance-of-plant (BOP) work and incorporate the current Atomic Safety and Licensing Board (ASLB or Board) ordered "hold points" on the soils remedial work into the Midland Construction permit (sic).

Require a management audit of Consumers Power Company (CPCo) by an independent, competent management auditing firm that will determine the causes of the management failures that have resulted in the soils settlement disaster and the recently discovered Quality Assurance breakdown.

Reject the Construction Completion Plan (CCP) as currently proposed, including a rejection of Stone and Webster to conduct the third party audit of the plant. Instead a truly independent, competent, and credible third party auditor should be selected with public participation in the process.

Remove the Quality Assurance/Quality Control function from the Midland Project Quality Assurance Department (MPQAD) and replace them with an independent team of QA/QC personnel that reports simultaneously to the NRC and CPCo management.

Increase the assignment of NRC personnel to include additional technical and inspection personnel as requested by the Midland Section of the Office of Special Cases.

Require a detailed review of the soils settlement resolution as outlined in the Supplemental Safety Evaluation Report, incorporating a technical analysis of the implementation of the underpinning project at the current stage of completion.

Petition at 1. The fifth issue relates to a matter of internal Commission organization and staffing, namely the allocation of staff to inspection of facilities. The staff is expecting to augment inspection personnel available to work on Midland. However, the creation of positions within the Office of Special Cases is a matter that will be determined by the Commission budget process. For these reasons, the staff is not considering this aspect of the request in this decision.

#### Background

The Consumers Power Company (CPCo or licensee) holds Construction Permits No. CPPR-81 (Unit 1) and No. CPPR-82 (Unit 2), issued by the Atomic Energy Commission in 1972, which authorized construction of the Midland Plant. The Midland nuclear plant is located in Midland, Michigan, and consists of two pressurized water reactors of Babcock and Wilcox design and related facilities for use in the commercial generation of electric power.

Since the start of construction, Midland has experienced significant construction problems attributable to deficiencies in implementation of

its quality assurance (QA) program. <sup>1/</sup> Following the identification of these problems, the licensee took action to identify the cause and correct each problem. Steps were also taken to upgrade the Midland QA program. Nevertheless, the licensee continued to experience problems in the implementation of its quality assurance program.

In 1980, the licensee reorganized its QA department so as to increase the involvement of high level CPCo management in onsite QA activities. Among its other tasks, the reorganized QA department, called the Midland Project Quality Assurance Department (MPQAD), was given the responsibility for quality control (QC) of heating, ventilation and air conditioning (HVAC) work in place of the HVAC contractor, Zack Company.

In May 1981, the NRC conducted a special, in-depth team inspection of the Midland site to examine the status of implementation and effectiveness of the QA program. Based on this inspection, Region III concluded that the newly

1/ Significant construction problems identified to date include:

- 1973 - cadweld splicing deficiencies
- 1976 - rebar omissions
- 1977 - bulge in the Unit 2 Containment Liner Plate
- 1977 - tendon sheath location errors
- 1978 - discovery of soil settlement problem
- 1980 - Zack Company heating, ventilation, and air conditioning deficiencies
- 1980 - reactor pressure vessel anchor stud failures
- 1981 - piping suspension system installation deficiencies
- 1982 - electrical cable misinstallations

Several of these deficiencies resulted in the Commission taking escalated enforcement action.



organized QA program was acceptable. See Inspection Reports 50-329/81-12; 50-330/81-12. The special team did, however, identify deficiencies in previous QC inspections of piping supports and restraints, and electrical cable installations.<sup>2/</sup> QC functions were further reorganized by the licensee's integration of the QC organization of its architect-engineer, Bechtel Power Corporation, into MPQAD in September 1982. This reorganization reflected the recommendations of the NRC staff. As part of this change, the licensee also undertook to retrain and recertify all previously certified Bechtel QC inspectors.

Nevertheless, construction difficulties continued to be identified at the Midland site. An inspection conducted during the period of October 1982 through January 1983 found significant problems with equipment in the diesel generator building. The subsequent identification of similar findings by CPCo in other portions of the plant prompted the licensee to halt the majority of the safety related work activities in December 1982. In view of the history of QA problems at the Midland plant and the lack of effectiveness of corrective actions to implement an adequate quality assurance program, the NRC indicated to the licensee that it was necessary to develop a comprehensive program to verify the adequacy of previous construction activities and to assure the adequacy of future construction. In view of the licensee's performance history, such an

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<sup>2/</sup> As a result of staff discussions about the seriousness of such findings and of similar indications of deficiencies as identified in the Systematic Assessment of Licensee Performance Report issued in April 1982, a special Midland Section in Region III was formed in July 1982. The Midland Section devoted increased attention to inspection of the Midland facility, including upgrading the QC program of the project's constructor, the Bechtel Power Corporation.

effort was necessary to restore staff's confidence in CPCo's ability to properly construct the Midland plants.

Consequently, CPCo discussed with the NRC the concept of a construction completion program which would address the concerns raised by the staff. These discussions were followed by a formal submittal of the Midland Construction Completion Program (CCP).

The CCP is the licensee's program for the planning and management of the construction and quality activities necessary for its completion of the construction of the Midland facility. An important aspect of the CCP is the third party overview, which is designed to provide additional assurance as to the effectiveness of the CCP. In response to comments from the NRC and members of the public, the CCP underwent several revisions. As revised and submitted by the licensee on August 26, 1983,<sup>4/</sup> the CCP includes: (1) NRC hold points; (2) the requirement for 100% reinspection of accessible installations; (3) the integration of Bechtel's QC program with MPQAD; (4) the retraining and recertification of QC inspectors; (5) the general training of licensee and contractor personnel in quality requirements for nuclear work, requirements of the CCP, safety orientation and inspection, and work procedures; (6) the revision, as necessary, of Project Quality Control Instructions (PQCI's); (7) CCP team training; and (8) an independent third party overview of CCP activities.

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<sup>4/</sup> The Petition was apparently based upon the June 3, 1983 version of the CCP. Subsequent versions of the CCP, as described in this decision, address a number of issues raised by petitioners.

The CCP is divided into two phases. Phase 1 consists of a systematic review of the safety-related systems and areas of the plant. This review will be conducted on an area-by-area basis and will be done by teams with responsibility for particular systems. Phase 1 is intended to provide a clear identification of remaining installation work, including any necessary rework and an up-to-date inspection to verify the quality of existing work.

Phase 2 will take the results of the Phase 1 review and complete any necessary work or rework, thereby bringing the project to completion. The teams organized for Phase 1 activities will continue as the responsible organizational units to complete the work in Phase 2.

It should be noted that the CCP does not include the remedial soils program, nuclear steam supply system installation, HVAC installation, and the reinspection of pipe hangers and electrical cable. The remedial soils activities are being closely inspected under the conditions of the construction permits which implement the Atomic Safety and Licensing Board's April 30, 1982, order and under a work authorization procedure. Therefore, the staff does not consider it necessary to require the remedial soils activities to be included in the CCP. Controls over the soils work have been implemented under a separate program. Similarly, reinspection of the pipe hangers and electrical cable were not included in Phase I of the CCP because that reinspection is being done under a separate commitment to the NRC. See letters from James G. Keppler, Regional Administrator, NRC Region III to James W. Cook, Consumers Power Company (August 30, September 2, 1982). Nuclear Steam Supply System installation and HVAC installation were not drawn into question by the diesel generator building inspection.

The staff has not developed facts to indicate that installation of these systems should be included in the CCP. However, these activities will be included in the construction implementation overview to be conducted by the third party overviewer.

The CCP is designed to address the generic applicability of the problems identified by the NRC's inspection of the diesel generator building. The objective of the CCP is to look at the plant hardware and equipment, identify existing problems, correct these problems and complete construction of the plant.

#### Consideration of Issues Raised

##### 1. Modification of Midland Construction Permits

Petitioners request that the Commission modify the Midland construction permits in two respects: 1) require "hold points" at various stages of the construction completion process; and, 2) incorporate those hold points concerning remedial soils work previously authorized by the Atomic Safety and Licensing Board panel with jurisdiction over the Midland proceeding.

The hold points are fundamental elements of the Midland CCP. As used by both the staff and petitioners, hold points refer to predetermined stages beyond which activities cannot proceed until authorized. Only when such prior work is found to be satisfactory will new work be authorized under the CCP. In this regard, the petitioners requested that three specific hold points be incorporated into the CCP to require NRC or third party review prior to continuation of work.



Based on their review of an early version of the CCP, petitioners asserted that the Midland project had been detrimentally affected by the lack of organizational freedom for its QA staff. See Petition at 13. Accordingly, the petitioners requested that a hold point be incorporated into the CCP whereby the success of the proposed program for the retraining and recertification of QA/QC personnel would be evaluated before any actual work was authorized under Phase 1 of the CCP. Id. at 13, 15. Subsequent to its initial discussions with the staff concerning development of a comprehensive construction completion program,<sup>5/</sup> the licensee began preliminary work, such as team training and recertification of QC inspectors in preparation for its anticipated Phase 1 activities, quality verification program and status assessments. The NRC was informed when training and recertification of QA/QC personnel and CCP team training would begin, and conducted a review of the licensee's actions. The staff suggested that the licensee undertake additional work before proceeding with some of its training effort. Consequently, the retraining hold point requested by petitioners has already been satisfied by the staff.

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5/ On December 2, 1982, when CPCo first discussed a construction completion plan with the NRC staff, CPCo was informed by Region III staff that it would be necessary to incorporate NRC hold points. The staff identified four points at which it would require NRC inspectors to review completed work before the next activity could be undertaken. These hold points were identified as:

1. Review and approval of training and recertification of QC inspectors before beginning Phase 1;
2. Review and approval of CCP team training before beginning Phase 1;
3. Review and approval of the Quality Verification Program (QVP) and status assessments before beginning Phase 1;
4. Review and approval of the program for rework or systems completion work before beginning Phase 2.

The petitioners also viewed the proposed CCP as lacking in comprehensiveness. To remedy this deficiency, petitioners proposed that "either a third party or NRC 'hold point' be contained in the reinspection Phase I activities [of the CCP] to determine the adequacy of the 'accessible systems' approach."<sup>6/</sup> Petition at 13.

As described in section three, infra, a third party will be conducting an extensive overview of the CCP and other construction completion activities. The fact that the third party overviewer will also have hold point controls over the licensee should provide additional assurance that construction is proceeding in accordance with all applicable requirements. See Consumers Power Company, Construction Completion Program (August 26, 1983) at 34. The NRC and the third party will monitor the reinspection activities. The staff believes that these monitoring activities will provide the control sought by the petitioners in their request to establish a hold point during Phase 1 reinspection to determine the adequacy of the accessible systems approach.

The third hold point requested by petitioners derives from another criticism of the proposed CCP - the failure of that plan to specify inspection procedures and evaluation criteria. See Petition at 10-11. Accordingly, petitioners request a systematic and thorough review of the construction and quality work packages which will be completed as a prerequisite to initiation of new construction work under Phase 2 of the CCP. Id. at 11.

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<sup>6/</sup> The accessible systems approach refers to the extent of reinspection under the CCP. Inaccessible areas of the plant will be reinspected by utilizing a records review and destructive and non-destructive testing as required. See Consumers Power Company, Construction Completion Program (August 26, 1983) at 22-23.

The CCP requires that representative construction and quality work packages be reviewed to assure that any completed work is consistent with statements made by the licensee in both its Final Safety Analysis Report and Quality Assurance Topical Report. In addition, the third party overviewer will be using sampling techniques and reviewing selected work and quality packages prior to and during Phase II. Should the results of this sampling approach identify inadequate work packages, the sampling size will be increased as necessary to provide the needed assurance that work packages are adequately reviewed. Moreover, the NRC staff, in performing its inspection activities, will overview this entire process, including reviewing selected quality and work packages.

In summary, the staff believes that those hold points it has incorporated into the CCP, when viewed in the aggregate, substantially satisfy the hold points requested by petitioners. The licensee is required to adhere to these hold points as part of the CCP in conformance with the Confirmatory Order for Modification of Construction Permits (Effective Immediately).

With respect to the second aspect of the requested relief, incorporation of NRC hold points authorized by the Licensing Board's April 30, 1982, Memorandum and Order, the petitioners' request has been satisfied by previous action of the Commission. By amendment dated May 26, 1982, the hold points ordered by the Board were incorporated into the construction permits. See 47 Fed. Reg. 23999 (June 2, 1982). Accordingly, the construction permits already prohibit CPGO from performing the following activities without "explicit prior approval" from the staff:

- (a) any placing, compacting, excavating, or drilling soil materials around safety-related structures and systems;

- (b) physical implementation of remedial action for correction of soil-related problems under and around safety-related structures and systems, including but not limited to:
  - (i) dewatering systems
  - (ii) underpinning of service water building
  - (iii) removal and replacement of fill beneath the feedwater isolation valve pit areas, auxiliary building electrical penetration areas and control tower, and beneath the turbine building
  - (iv) placing of underpinning supports beneath any of the structures listed in (iii) above
  - (v) compaction and loading activities;
- (c) construction work in soil materials under or around safety-related structures and systems such as field installation, or rebedding, of conduits and piping.

Construction Permits No. CPPR-81 and CPPR-82, Amendment No. 3 (May 26, 1982).

## 2. Management audit of CPCo

The petitioners request that the NRC require a management audit of CPCo's performance on the Midland project. The staff does not believe that a management audit is necessary at this time as a condition for going forward with the CCP. The staff expects that the CCP, with its built-in hold points and third party overview, should provide an effective process to satisfactorily complete construction at Midland, without the previous quality assurance problems. The third party overview together with the planned staff inspection activities should provide information to determine the adequacy of the licensee's implementation of the CCP. Nevertheless, the staff will continue to review information concerning the licensee's performance in other areas to determine whether an audit is required.



3. Rejection of Construction Completion Program and Third Party  
Overview Organization.

In requesting that the Commission reject the Midland construction completion plan, petitioners based their position on the unacceptability of the Stone and Webster Engineering Corporation (S&W) to conduct the third party overview of the CCP. Petitioners raised three objections to the selection of S&W: the failure of S&W to meet the Commission's criteria for the independence required of a third party, see Petition at 19; the failure of S&W to submit a minimally adequate audit proposal, id. at 18-19; and the lack of public participation in the selection of S&W as the third party review organization for the Midland project. Id. at 19-20.

In support of its argument that S&W is not sufficiently independent to monitor implementation of the CCP, the petitioners asserted that "under both a literal and realistic reading of the Commission's primary financial criteria, ...the third party not have any direct previous involvement with the Company."

Petition at 19. In order to evaluate whether an audit organization is sufficiently independent to conduct a third party review, the Commission generally utilizes the guidance originally set forth in a letter from Chairman Palladino to Representatives Ottinger and Dingell. The Commission's standard does not require that a proposed third party reviewer have had no previous involvement with the utility whose program it will be reviewing. Rather, the criteria require that the audit organization, including those employees who will be participating in the third party review, will not be reviewing specific

activities in which they were previously involved. See Letter from Chairman Palladino to Representatives Ottinger and Dingell (Feb. 1, 1982), Attachment 1, at 1. Petitioners stated that S&W's role as the overviewer of remedial soils work at Midland prohibits that organization from serving in the same capacity for the CCP. The staff disagrees. Since the remedial soils activities are outside the scope of the CCP, S&W will not be called upon to review its own work. Consequently, the staff does not agree that S&W's overview activities will conflict with the established independence criteria.<sup>7/</sup>

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<sup>7/</sup> The petitioners questioned why TERA was disqualified from consideration as the overviewer under the CCP while S&W was not disqualified on the ground of independence. See Petition at 19. TERA's disqualification was based on the potential for conflict that could be raised by TERA overview under the CCP of determinations that TERA had previously made under the Independent Design and Construction Verification Program (IDCVP) of the adequacy of the construction of the Auxiliary Feedwater System, the onsite emergency AC power supplies and the HVAC system for the control room. Since TERA has been approved by the NRC to perform the IDCVP, the staff determined that TERA would not satisfy the Commission independence criteria for the third party overview of the CCP. See letter from James G. Keppler, Regional Administrator, Region III to James W. Cook, Consumers Power Company (March 28, 1983) at 3.

The written program documents being utilized to directly control and implement the Construction Implementation Overview (CIO) program<sup>8/</sup> and the applicable S&W corporate master program documents<sup>9/</sup> have been reviewed by the staff. These documents are representative of the scope and depth of the S&W overview. The NRC staff also met with S&W on August 25, 1983, in Midland, Michigan in order to gain additional insight into the total S&W program. Based upon its document review and discussions with S&W at the August 25, 1983, meeting, the staff has found the S&W proposal to constitute an acceptable third party overview program. To provide additional assurance that the third party audit is being properly implemented, the CIO program will also be audited independently by the S&W corporate quality assurance staff. NRC inspectors will also monitor the adequacy of the CIO program.

8/ The documents written expressly for the CIO include:

1. CIO Program Document dated April 1, 1983.
2. CIO Quality Assurance Plan.
3. Third Party CIO Plan.
4. CIO Assessment Procedure, 10.01.
5. Nonconformance Identification and Reporting Procedure, 15.01.
6. A detailed attribute checklist for each CPCe Project Quality Control Instruction (PQCI).
7. A detailed checklist to review generic types of requirements (for non-PQCI activities); e.g., QA Audits and Surveillances.
8. Additional Quality Control Instruction as needed to provide adequate overview control.

9/ The following S&W corporate master program documents will also be utilized for the CIO, as required:

1. QA Topical Report SWSQAP 1-74A, S&W Standard Nuclear Quality Assurance Program.
2. S&W Quality Standards; e.g., for quality sampling.
3. S&W Quality Assurance Directives.

Of particular concern to the petitioners was the number of personnel which S&W had assigned to the Midland overview. See Petition at 18. The number of qualified people will vary with the demand of the work activities to be overviewed. S&W's CIO staffing plan currently has nine people assigned at the Midland site and there are planned increases to 32 people as work activities progress. These numbers, however, are only estimates and S&W has represented that it will commit whatever personnel are necessary to conduct the CIO. Furthermore, the number of personnel utilized by S&W is not subject to limitation by CPCo.

S&W has already begun to review preliminary activities of the licensee in preparation for initiation of the CCP.<sup>10/</sup> This effort has identified various concerns and one nonconformance that required CPCo action to resolve. The NRC staff has reviewed the CIO activities performed to date and has found this overview, including actions taken by CPCo, to be of the quality expected of a third party overview.

10/ The activities being overviewed have included the following CCP and non-CCP activities:

- . Program and procedure reviews.
- . Review of PQCI's.
- . Review of MPQAD QA/QC personnel training and certification.
- . Review of general training of CPCo and Bechtel personnel, including construction craftspersons.
- . Review of CCP Management Reviews.
- . Review of System Interaction Walkdowns.
- . Review of Design Documents.



The purpose of the independent third party overview is to provide additional assurance that the CCP is adequate and will be properly implemented. This overview requirement was necessitated by the loss of NRC staff confidence in CPCo to successfully implement a quality assurance program for the Midland project. The CIO will remain in place at the Midland site until the necessary level of confidence in the ability of the licensee to construct the Midland project has been restored to the satisfaction of the NRC staff.<sup>11/</sup> Given that the third party overview is expected to continue until NRC confidence in the Midland project is restored, petitioners' criticism that the CIO is of insufficient duration appears unfounded.

Opportunity has been provided to the public to participate in the selection of S&W as the third party reviewer, and to comment on the CCP itself. A meeting was held on February 8, 1983, between CPCo and the staff to discuss the CCP. On August 11, 1983, the staff met with the intervenors, representatives of the Government Accountability Project (GAP) and the Lone Tree Council to discuss the CCP and the CIO. Subsequently, on August 25, 1983, the staff met with S&W to discuss the CIO. These meetings were conducted in Midland, Michigan and were open to public observation. Evening sessions to receive public comments regarding the CCP were held on February 8, and August 11, 1983. Similarly, public comments were received following the August 11 and August 25, 1983, meetings. Several additional meetings between the staff, intervenors and a representative of GAP to discuss the CCP and CIO have also been held.

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<sup>11/</sup> The staff anticipates that the third party overview will be a long term effort.

The petitioners' reference in its request to "closed door" meetings appears to refer to working level meetings that have been held principally between the Midland section of the Region III staff and CPCo site personnel, and, in some cases, S&W onsite personnel. See Petition at 19. Such meetings continue to be necessary to enable the NRC staff to achieve a full understanding of the CCP, including the CIO, and to discharge its inspection duties.

For the reasons set forth above, petitioners' request to reject the selection of S&W to conduct the CIO, and to reject the CCP, is denied. <sup>12/</sup>

4. Removal of the Licensee from Primary Responsibility for the Midland Quality Assurance Program

The petitioners request that MPQAD be relieved of responsibility for the QA/QC function at the Midland plant and that an independent team of QA/QC personnel be created which would report simultaneously to the NRC staff and CPCo. In support of their request, petitioners cite much of the same history of QA/QC deficiencies that the staff summarized in the background section of this decision. See Petition at 20.

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<sup>12/</sup> The staff has approved S&W to conduct the CIO. See Staff Evaluation of Consumers Power Company Proposal to Use Stone and Webster Michigan, Inc. to Conduct the Third Party Construction Implementation Overview of the Midland Nuclear Plant (Sept. 29, 1983).

The changes that CPCo has most recently instituted through development of the CCP should improve its capability to discharge its responsibility under applicable Commission regulations, such as 10 CFR 50.34(a)(7) and Appendix B to 10 CFR Part 50, which require the establishment and execution of a QA/QC program. While Criterion I of Appendix B permits a construction permit holder to delegate to other organizations the detailed execution of the QA/QC program, the history of the Midland project makes it clear that the licensee has retained too little control over the QA/QC program. CPCo seems to be proceeding in a positive direction by integrating the implementation of the QC function formerly under the control of Bechtel into the MPQAD. This consolidation of quality control and quality assurance functions should reinforce the separation between the QC function, which will be assumed by MPQAD, and the construction function, which will remain with Bechtel.

While it might be permissible under Appendix B to 10 CFR Part 50 for CPCo to retain an independent organization to execute the QA/QC program, the licensee remains ultimately responsible for the establishment and execution of the program. As stated above, the staff considers the strengthening of MPQAD to be a positive step in improving CPCo's capability to assure the quality of construction of the Midland facility. In view of the relatively short existence of the MPQAD, there does not currently exist any justification for requiring CPCo to retain an outside organization to execute the QA/QC program. Therefore, this aspect of petitioners' request is denied.

Petitioners also requested that the independent QA/QC team report simultaneously to the NRC and to CPCo management. The petitioners apparently intended that

the NRC would be involved in making management decisions regarding construction of the facility based upon the reports of the independent QA/QC team. There appears to be no basis for this extraordinary departure from the NRC's regulatory function. Accordingly, this aspect of the petition is denied.

##### 5. Detailed Review of Soils Settlement Resolution

The petitioners requested that the staff conduct a detailed review of the resolution of the soils settlement problems, including a technical analysis of the implementation of the underpinning project at the current stage of completion. Petition at 23. In its supporting discussion, the petition focused upon the questionable structural integrity of the diesel generator building.

A detailed review of the program for resolution of the soils settlement problem has previously been conducted by the NRC staff and its consultants. In 1979 the U.S. Army Corps of Engineers was contracted to assist the staff in the safety review of the Midland project in the field of geotechnical engineering. After the soils problem became known, additional assistance to the staff in specialized engineering fields (structural, mechanical, and underpinning) was obtained from the U.S. Naval Surface Weapons Center, Harstead Engineering Associates, Geotechnical Engineers, Inc., and Energy Technology Engineering Center. These consultants assisted in the review of technical studies, participated in design audits, visited the site, provided input to the Safety Evaluation Report, and provided expert testimony before the Atomic Safety and



Licensing Board. Thus, the approach to the resolution of the soils settlement issue has been thoroughly studied by the staff and its consultants.

The implementation of the remedial soils activities is being closely followed as part of the NRC's inspection program. This inspection effort includes ongoing technical review of the remedial soils program and its implementation by a Region III soils specialist. Technical expertise to evaluate implementation is also provided by the NRC's Office of Nuclear Reactor Regulation. Additionally, the NRC is utilizing Geotechnical Engineers Inc. in assessing aspects of the remedial soils and underpinning activities. In addition, the soils settlement question has been in litigation for over two years before an Atomic Safety and Licensing Board. Consequently, the relief requested with regard to the soils settlement issue has been substantially satisfied by prior action of the Commission.

Along with review of the soils settlement issue, petitioners requested that another study of the seismic design deficiencies of the Midland plant, with emphasis on the diesel generator building, be conducted. The petitioners further requested that this review would be conducted by a "non-nuclear construction consultant." See Petition at 23.

The NRC staff has initiated a task force study by consultants from Brookhaven National Laboratory (BNL) and NRC structural engineers to evaluate concerns about the structural integrity of the diesel generator building raised by a NRC Region III inspector in testimony before the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs.

Following their review, a report will be issued addressing the concerns raised by the inspector. Decisions on whether further actions are required will be

made based upon that report. Additional details on the task force were provided to the Government Accountability Project by letter dated August 10, 1983, and in Board Notifications 83-109 and 83-142, which were transmitted to GAP on July 27 and September 22, 1983, respectively.

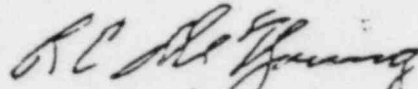
As to the request that a review of the diesel generator building be conducted by a "non-nuclear construction consultant", BNL has established an expert team to resolve the concerns raised by the Region III inspector. Expertise rather than the label "non nuclear construction consultant" should be the governing criteria. The staff has reviewed the qualifications of the team members and is satisfied with their experience. The task force study currently in progress substantially satisfies this aspect of the petition.

The petition also appears to be requesting an additional review of the seismic design of structures other than the diesel generator building. Petitioners have not, however, stated any basis why additional reviews beyond those reflected in the Safety Evaluation Report and Supplements are necessary. The staff does not believe that an additional review by an outside organization of the facility's seismic design is required at this time.

#### Conclusion

Based upon the foregoing discussion, I have granted the petition in part and denied it in part.

A copy of this decision will be filed with the Office of the Secretary of the Commission for the Commission's review in accordance with 10 CFR 2.206(c) of the Commission's regulations. This decision will become the final action of the Commission twenty-five days after date of issuance unless the Commission, on its own motion, institutes a review of the decision within that time.



Richard C. DeYoung, Director  
Office of Inspection and Enforcement

Dated at Bethesda, Maryland,  
this 6th day of October 1983

[7590-01]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-329 and 50-330]

CONSUMERS POWER COMPANY

(Midland Plant, Units 1 and 2)

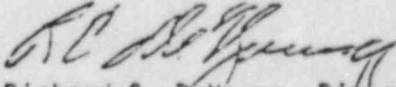
ISSUANCE OF DIRECTOR'S DECISION UNDER 10 CFR 2.206

Notice is hereby given that the Director, Office of Inspection and Enforcement, has issued a decision concerning a petition dated June 13, 1983, filed by Billie Pirner Garde of the Government Accountability Project on behalf of the Lone Tree Council and others. The petitioners had requested that the Commission take a number of actions with respect to the Midland Plant. The Director, Office of Inspection and Enforcement, has decided to grant in part and deny in part the petitioners' request.

The reasons for this decision are explained in a "Director's Decision" under 10 CFR 2.206 (DD-83-16), which is available for public inspection in the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555, and in the Local Public Document Room for the Midland Plant, located at the Grace Dow Memorial Library, 1910 W. St. Andrews Road, Midland, Michigan, 48640.

Dated at Bethesda, Maryland this 6th day of October, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Richard C. PeYoung, Director  
Office of Inspection and Enforcement

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